



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

A G E N D A

MEETING, MARCH 1, 2019

A meeting of the South Coast Air Quality Management District Board will be held at 9:00 a.m., in the Auditorium at SCAQMD Headquarters, 21865 Copley Drive, Diamond Bar, California.

Questions About an Agenda Item

- The name and telephone number of the appropriate staff person to call for additional information or to resolve concerns is listed for each agenda item.
- In preparation for the meeting, you are encouraged to obtain whatever clarifying information may be needed to allow the Board to move expeditiously in its deliberations.

Meeting Procedures

- The public meeting of the SCAQMD Governing Board begins at 9:00 a.m. The Governing Board generally will consider items in the order listed on the agenda. However, any item may be considered in any order.
- After taking action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.

Questions About Progress of the Meeting

- During the meeting, the public may call the Clerk of the Board's Office at (909) 396-2500 for the number of the agenda item the Board is currently discussing.

The agenda and documents in the agenda packet will be made available upon request in appropriate alternative formats to assist persons with a disability. Disability-related accommodations will also be made available to allow participation in the Board meeting. Any accommodations must be requested as soon as practicable. Requests will be accommodated to the extent feasible. Please telephone the Clerk of the Boards Office at (909) 396-2500 from 7:00 a.m. to 5:30 p.m. Tuesday through Friday.

All documents (i) constituting non-exempt public records, (ii) relating to an item on the agenda, and (iii) having been distributed to at least a majority of the Governing Board after the agenda is posted, are available prior to the meeting for public review at the South Coast Air Quality Management District Clerk of the Board's Office, 21865 Copley Drive, Diamond Bar, CA 91765.

The Agenda is subject to revisions. For the latest version of agenda items herein or missing agenda items, check the District's web page (www.aqmd.gov) or contact the Clerk of the Board, (909) 396-2500. Copies of revised agendas will also be available at the Board meeting.

CALL TO ORDER

- Pledge of Allegiance
- Opening Comments: William A. Burke, Ed.D., Chair
Other Board Members
Wayne Nastri, Executive Officer
- Presentation of Retirement Award to Norma Martinez **Burke**
- Swearing in of Newly Appointed Board Member Lisa A. Bartlett **Burke**

Staff/Phone (909) 396-

CONSENT CALENDAR (Items 1 through 20)

Note: Consent Calendar items held for discussion will be moved to Item No. 21

1. Approve Minutes of February 1, 2019 Board Meeting **Garzaro/2500**
 2. Set Public Hearing April 5, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations **Nastri/3131**
 - Certify Final Subsequent Environmental Assessment and Amend Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines **Nakamura/3105**
- The adoption Resolution of the Final 2016 AQMP directed staff to achieve additional NOx emission reductions and to transition the RECLAIM program to a command-and-control regulatory structure as soon as practicable. Proposed Amended Rule 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines and is being amended to update NOx emission limits to reflect current BARCT, establish ammonia emission limits, and provide implementation timeframes to facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. The proposed amended rule also establishes provisions for monitoring, reporting, and recordkeeping. Other provisions are incorporated to remove obsolete provisions and provide clarifications. This action is to adopt the Resolution: 1) Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, and 2) Amending Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines. (Reviewed: Stationary Source Committee, February 15, 2019)

Budget/Fiscal Impact

3. Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, and Reimburse General Fund for Administrative Costs **Miyasato/3249**

U.S. EPA is executing a Supplemental Environmental Project (SEP) agreement and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. This action is to recognize up to \$161,352 into the Air Filtration Fund (75). These actions are to also execute agreements to install and maintain air filtration systems in an amount not to exceed \$153,284; execute or amend access agreement with a local school district; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to \$8,068 for SEP administration. (Reviewed: Technology Committee, February 15, 2019; Recommended for Approval)

4. Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2018-19 Carl Moyer Program Award, Issue Program Announcements for Carl Moyer Program and SOON Provision, and Transfer Funds for Voucher Incentive Program **Miyasato/3436**

These actions are to adopt a Resolution recognizing up to \$31 million in Carl Moyer Program grant funds from CARB under SB 1107 with its terms and conditions for FY 2018-19 and issue Program Announcements for "Year 21" of the Carl Moyer Program and SOON Provision to provide incentive funding for zero and low emitting on- and off-road vehicles and equipment. Funding for the Carl Moyer and SOON projects will be provided from the Carl Moyer Program SB 1107, AB 923 and other funds that may become available for projects eligible under the Carl Moyer Program. This action is to also transfer \$3 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) to continue funding truck replacement projects on a first-come, first-served basis. (Reviewed: Technology Committee, February 15, 2019; Recommended for Approval)

5. Approve SCAQMD Annual Investment Policy and Delegation of Authority to Appointed Treasurer to Invest SCAQMD Funds **Jain/2804**

State law requires a local government entity annually to provide a statement of investment policy for consideration at a public meeting and to renew its delegation of authority to its treasurer to invest or to reinvest funds of the local agency. This action is to approve the Annual Investment Policy and the Resolution to renew delegation of authority to the Los Angeles County Treasurer to invest and reinvest SCAQMD funds. (Reviewed: Investment Oversight Committee, February 15, 2019; Recommended for Approval)

6. **Transfer and Appropriate Funds and Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services** **Moskowitz/3329**

SCAQMD currently has contracts with several companies for short- and long-term systems development, maintenance and support services. These contracts are periodically amended as additional needs are defined. This action is to transfer and appropriate funds totaling \$559,955 and amend three contracts previously approved by the Board to add funding for needed development and maintenance work. (Reviewed: Administrative Committee, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration)

7. **Authorize Purchase of Maintenance and Support Services for Servers and Storage Devices** **Moskowitz/3329**

The servers and storage devices are used by enterprise-level software applications that currently support the Clean Air Support System for all SCAQMD core activities. Maintenance support for these systems will expire on April 30, 2019. This action is to obtain approval for the sole source purchase of hardware and software maintenance and support services for servers and storage devices from Hewlett Packard Enterprise Company for one year, in an amount not to exceed \$120,000. (Reviewed: Administrative Committee, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration)

8. **Execute Contract for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives** **Alatorre/3122**

At the December 7, 2018 meeting, the Board approved the release of an RFP to solicit proposals from individuals and organizations to provide assistance with community and stakeholder outreach efforts related to SCAQMD's Environmental Justice Program, including but not limited to, the Environmental Justice Community Partnership Initiative meetings and conference. One proposal was submitted to the Administrative Committee for consideration at its February 8, 2019 meeting. After the Committee interviewed representatives from the Lee Andrews Group, Inc., the Committee Members present (less than a quorum) concurred that this item be forwarded to the full Board. This action is to execute a contract with Lee Andrews Group, Inc. for \$160,000 for a one-year contract with an option for up to two one-year term renewals, upon satisfactory performance, at the Board's discretion. Funding for year one services is contained in the Legislative, Public Affairs & Media FY 2018-19 budget. Future funding for FYs 2019-20 and 2020-21 will be subject to Board approval. (Reviewed: Administrative Committee, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration)

9. Approve Contract Awards as Approved by MSRC **McCallon**

The MSRC approved two replacement contracts as part of their FYs 2012-14 Work Program. At this time the MSRC seeks Board approval of the contract awards as part of the FYs 2012-14 Work Program. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, February 21, 2019; Recommended for Approval)

Action Item/No Fiscal Impact

10. Annual Meeting of Health Effects of Air Pollution Foundation **Gilchrist/3459**

This item is to conduct the annual meeting of the Health Effects of Air Pollution Foundation. The Foundation staff will present an annual report detailing the research supported by the Foundation over the past year, the Foundation's plans for the future, and a final report. (No Committee Review)

11. Amend Charter for Environmental Justice Community Partnership Advisory Council and Young Leaders Advisory Council **Alatorre/3122**

The Environmental Justice Community Partnership Advisory Council and the Young Leaders Advisory Council meet four times a year, and staff is requesting a change to the respective charters to reflect that missing two consecutive meetings without notifying the SCAQMD is cause for the member's removal from the Advisory Council. (Reviewed: Administrative Committee, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration)

Items 12 through 20 - Information Only/Receive and File

12. Legislative, Public Affairs, and Media Report **Alatorre/3122**

This Report highlights the January 2019 outreach activities of the Legislative, Public Affairs and Media Office, which includes: Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Business Assistance, Media Relations and Outreach to Business and Federal, State, and Local Government. (No Committee Review)

13. Hearing Board Report **Prussack/2500**

This reports the actions taken by the Hearing Board during the period of January 1 through January 31, 2019. (No Committee Review)

14. Civil Filings and Civil Penalties Report **Gilchrist/3459**

This reports the monthly penalties from January 1 through January 31, 2019, and legal actions filed by the General Counsel's Office from January 1 through January 31, 2019. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, February 15, 2019)

15. **Lead Agency Projects and Environmental Documents Received by SCAQMD** **Nakamura/3105**

This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between January 1, 2019 and January 31, 2019, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, February 15, 2019)

16. **Report of RFPs Scheduled for Release in March** **Jain/2804**

This report summarizes the RFPs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of March. (Reviewed: Administrative Committee, February 8, 2019)

17. **Rule and Control Measure Forecast** **Fine/2239**

This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019. (No Committee Review)

18. **FY 2018-19 Contract Activity** **Jain/2804**

This report lists the number of contracts let during the first six months of FY 2018-19, the respective dollar amounts, award type, and the authorized contract signatory for the SCAQMD. (No Committee Review)

19. **Status Report on Major Ongoing and Upcoming Projects for Information Management** **Moskowitz/3329**

Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects. (Reviewed: Administrative Committee, February 8, 2019)

20. **Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17** **Fine/2239**

This report contains data on the AB 2766 Subvention Fund Program for FY 2016-17 as requested by CARB. This action is to approve the AB 2766 Annual Report. (Reviewed: Mobile Source Committee, February 15, 2019; Recommended for Approval)

21. **Items Deferred from Consent Calendar**

BOARD CALENDAR

- | | | | |
|------|--|-----------------------|----------------|
| 22. | Administrative Committee (Receive & File) | Chair: Burke | Nastri/3131 |
| 23. | Investment Oversight Committee (Receive & File) | Chair: Cacciotti | Jain/2804 |
| 24A. | Legislative Committee (Receive & File) | Chair: Mitchell | Alatorre/3122 |
| 24B. | Legislative Committee (Receive & File) | Chair: Mitchell | Alatorre/3122 |
| 25. | Mobile Source Committee (Receive & File) | Chair: Parker | Fine/2239 |
| 26. | Stationary Source Committee (Receive & File) | Chair: Benoit | Tisopulos/3123 |
| 27. | Technology Committee (Receive & File) | Chair: Buscaino | Miyasato/3249 |
| 28. | Mobile Source Air Pollution Reduction
Review Committee (Receive & File) | Board Liaison: Benoit | Berry/2363 |
| 29. | California Air Resources Board Monthly
Report (Receive & File) | Board Rep: Mitchell | Garzaro/2500 |

Staff Presentation/Board Discussion

- | | | |
|-----|--|-----------|
| 30. | Update on Development of Facility-Based Mobile Source
Measures in 2016 AQMP (<i>Presentation in lieu of Board Letter</i>) | Rees/2856 |
|-----|--|-----------|

This staff presentation will provide a summary of recent activities on Facility-Based Mobile Source Measures. Following Board direction, staff is developing indirect source rules for warehouses and rail yards, pursuing memoranda of understanding for marine ports and airports, and continuing to study potential regulatory and voluntary approaches for new/redevelopment projects. This update will cover activities since the last Board update six months ago, and preview upcoming activities expected in 2019. (Reviewed: Mobile Source Committee, February 15, 2019)

PUBLIC HEARINGS

31. Determine that Proposed Amendments to Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are Exempt from CEQA; Amend Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 **Nakamura/3105**

Proposed amendments to the above referenced rules will expand noticing options to include email and web page display for public notices for Clean Air Act permit programs and rulemaking activities. California Senate Bill 1502, drafted in response to SCAQMD's initiative to modernize communication methods, and amendments to the U.S. EPA Code of Federal Regulations enable these changes. The option to deliver invoices to permit holders by email will also be included. This action is to adopt the Resolution: 1) Determining that the proposed amendments to the above referenced rules are exempt from the requirements of the California Environmental Quality Act; 2) Amending the above referenced rules; and 3) Adopting "Procedures for Including Electronic Public Notice." (Reviewed: Stationary Source Committee, January 18, 2019)

32. Approve and Adopt Technology Advancement Office Clean Fuels Program 2018 Annual Report and 2019 Plan Update and Resolution, Receive and File Revised Membership of Technology Advancement Advisory Group, and Approve and Adopt Membership Changes for Clean Fuels Advisory Group **Miyasato/3249**

Each year by March 31, SCAQMD must submit to the California Legislative Analyst an approved Annual Report for the past year and a Plan Update for the current calendar year for the Clean Fuels Program. Staff has reviewed the Clean Fuels Program with the Clean Fuels Advisory Group, the Technology Advancement Advisory Group and other technical experts. Additionally, the 2019 Clean Fuels Program Draft Plan Update was presented to the Technology Committee for review and comment at its October 19, 2018 meeting. This action is to approve and adopt the final Technology Advancement Clean Fuels Program Annual Report for 2018 and 2019 Plan Update as well as the Resolution finding that proposed projects do not duplicate any past or present programs. This action is to also receive and file a revised membership list of the Technology Advancement Advisory Group and approve and adopt membership changes to the SB 98 Clean Fuels Advisory Group. (Reviewed: Technology Committee, February 15, 2019; Recommended for Approval)

33. Approve Annual RECLAIM Audit Report for 2017 Compliance Year **Tisopulos/3123**

The annual report on the NO_x and SO_x RECLAIM program is prepared in accordance with Rule 2015 - Backstop Provisions. The report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the twenty-fourth year of this program. In addition, recent trends in trading future year RTCs are analyzed and presented in this report. Further, a list of facilities that did not reconcile their emissions for the 2017 Compliance Year is included in the report. This action is to approve the Annual RECLAIM Audit Report for 2017. (Reviewed: Stationary Source Committee, February 15, 2019)

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3)

BOARD MEMBER TRAVEL – (No Written Material)

Board member travel reports have been filed with the Clerk of the Boards, and copies are available upon request.

CONFLICT OF INTEREST DISCLOSURES – (No Written Material)

Under the approval authority of the Executive Officer, the District will enter into a contract with Gladstein, Neandross & Associates (Contract No. 19249), a license agreement with the City of Long Beach (Contract No. 182441), and contract modifications with IQAir North America, Inc. (Contract No. C182281) and Comite Civico del Valle, Inc. (Contract No. C173592). Gladstein, Neandross & Associates, City of Long Beach, and IQAir North America, Inc. are potential sources of income for Governing Board Member Joseph Lyo, which qualify for the remote interest exception of Section 1090 of the California Government Code. Comite Civico Del Valle, Inc. has entered into a contractual relationship with Dr. Lyo's non-profit employer, the Coalition for Clean Air, which also qualifies for the remote interest exception of Section 1090 of the Code. Dr. Lyo abstained from any participation in the making of the contract, license agreement, and contract modifications.

CLOSED SESSION - (No Written Material)

Gilchrist/3459

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

It is necessary for the Board to recess to closed session pursuant to Government Code sections 54956.9(a) and 54956.9(d)(1) to confer with its counsel regarding pending litigation which has been initiated formally and to which the SCAQMD is a party. The actions are:

- In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);
- SCAQMD v. Anaplex, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, SCAQMD Hearing Board Case No. 3448-14;
- Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS161399 (RECLAIM);
- Communities for a Better Environment v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169841; Safe Fuel and Energy Resources California, et al. v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169923 (Tesoro);
- People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;

- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);
- Fast Lane Transportation, Inc., et al. v. City of Los Angeles, et al., Court of Appeal, First Appellate District, Case No. A148993 (formerly Contra Costa County Superior Court Case No. MSN14-0300) (SCIG);
- In the Matter of SCAQMD v. Southern California Gas Company, Aliso Canyon Storage Facility, SCAQMD Hearing Board Case No. 137-76 (Order for Abatement); People of the State of California, ex rel SCAQMD v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861;
- In the Matter of SCAQMD v. Torrance Refining Company, LLC, SCAQMD Hearing Board Case No. 6060-5 (Order for Abatement);
- State of California, et al. v. U.S. EPA, et al., U.S. Court of Appeals, D.C. Circuit, Case No. 18-1114 (mid-term evaluation for light-duty vehicles); and
- People of the State of California, ex rel South Coast Air Quality Management District v. The Sherwin-Williams Company, an Ohio Corporation, and Does 1 through 50, Inclusive, Los Angeles Superior Court Case No. PSCV 00136.

CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION

It is also necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (two cases).

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Also, it is necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(d)(2) to confer with its counsel because there is a significant exposure to litigation against the SCAQMD (one case)—Letter from Steven J. Olson, O'Melveny & Myers LLP, on behalf of ExxonMobil Corporation, dated August 22, 2018.

ADJOURNMENT

*****PUBLIC COMMENTS*****

Members of the public are afforded an opportunity to speak on any agenda item before consideration of that item. Please notify the Clerk of the Board, (909) 396-2500, if you wish to do so. All agendas are posted at SCAQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of the meeting. At the end of the agenda, an opportunity is also provided for the public to speak on any subject within the SCAQMD's authority. Speakers will be limited to a total of three (3) minutes for the Consent Calendar and Board Calendar and three (3) minutes or less for other agenda items.

Note that on items listed on the Consent Calendar and the balance of the agenda any motion, including action, can be taken (consideration is not limited to listed recommended actions). Additional matters can be added and action taken by two-thirds vote, or in the case of an emergency, by a majority vote. Matters raised under the Public Comment Period may not be acted upon at that meeting other than as provided above.

Written comments will be accepted by the Board and made part of the record, provided 25 copies are presented to the Clerk of the Board. Electronic submittals to cob@aqmd.gov of 10 pages or less including attachment, in MS WORD, PDF, plain or HTML format will also be accepted by the Board and made part of the record if received no later than 5:00 p.m., on the Tuesday prior to the Board meeting.

ACRONYMS

AQ-SPEC = Air Quality Sensor Performance
Evaluation Center

AQIP = Air Quality Investment Program

AQMP = Air Quality Management Plan

AVR = Average Vehicle Ridership

BACT = Best Available Control Technology

BARCT = Best Available Retrofit Control Technology

Cal/EPA = California Environmental Protection Agency

CARB = California Air Resources Board

CEMS = Continuous Emissions Monitoring Systems

CEC = California Energy Commission

CEQA = California Environmental Quality Act

CE-CERT = College of Engineering-Center for Environmental
Research and Technology

CNG = Compressed Natural Gas

CO = Carbon Monoxide

DOE = Department of Energy

EV = Electric Vehicle

FY = Fiscal Year

GHG = Greenhouse Gas

HRA = Health Risk Assessment

LEV = Low Emission Vehicle

LNG = Liquefied Natural Gas

MATES = Multiple Air Toxics Exposure Study

MOU = Memorandum of Understanding

MSERCs = Mobile Source Emission Reduction Credits

MSRC = Mobile Source (Air Pollution Reduction) Review
Committee

NATTS = National Air Toxics Trends Station

NESHAPS = National Emission Standards for
Hazardous Air Pollutants

NGV = Natural Gas Vehicle

NOx = Oxides of Nitrogen

NSPS = New Source Performance Standards

NSR = New Source Review

OEHHA = Office of Environmental Health Hazard
Assessment

PAMS = Photochemical Assessment Monitoring
Stations

PEV = Plug-In Electric Vehicle

PHEV = Plug-In Hybrid Electric Vehicle

PM10 = Particulate Matter \leq 10 microns

PM2.5 = Particulate Matter \leq 2.5 microns

RECLAIM = Regional Clean Air Incentives Market

RFP = Request for Proposals

RFQ = Request for Quotations

SCAG = Southern California Association of Governments

SIP = State Implementation Plan

SOx = Oxides of Sulfur

SOON = Surplus Off-Road Opt-In for NOx

SULEV = Super Ultra Low Emission Vehicle

TCM = Transportation Control Measure

ULEV = Ultra Low Emission Vehicle

U.S. EPA = United States Environmental Protection
Agency

VOC = Volatile Organic Compound

ZEV = Zero Emission Vehicle

 [Back to Agenda](#)

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the February 1, 2019 meeting.

RECOMMENDED ACTION:

Approve Minutes of the February 1, 2019 Board Meeting.

Denise Garzaro
Clerk of the Boards

DG

FRIDAY, FEBRUARY 1, 2019

Notice having been duly given, the regular meeting of the South Coast Air Quality Management District Board was held at District Headquarters, 21865 Copley Drive, Diamond Bar, California. Members present:

William A. Burke, Ed.D., Chairman
Speaker of the Assembly Appointee

Dr. Clark E. Parker, Sr., Vice Chairman
Senate Rules Committee Appointee

Council Member Ben Benoit
Cities of Riverside County

Council Member Joe Buscaino
City of Los Angeles

Council Member Michael A. Cacciotti
Cities of Los Angeles County – Eastern Region

Supervisor Janice Hahn
County of Los Angeles

Dr. Joseph K. Lyou
Governor's Appointee

Mayor Pro Tem Larry McCallon
Cities of San Bernardino County

Mayor Judith Mitchell
Cities of Los Angeles County – Western Region

Supervisor Shawn Nelson (Arrived at 9:10 a.m.)
County of Orange

Supervisor V. Manuel Perez
County of Riverside

Council Member Dwight Robinson
Cities of Orange County

Supervisor Janice Rutherford
County of San Bernardino

CALL TO ORDER: Chairman Burke called the meeting to order at 9:05 a.m.

- Pledge of Allegiance: Led by Dr. Lyou.
- Opening Comments

Mr. Nastri noted that staff recently traveled to Shenzhen and Chengdu, China where they met with Chinese officials and discussed a number of initiatives and technologies. He noted that EVs are prominently used in the region and China is developing electric heavy-duty trucks. Discussions were held with officials regarding the ocean going vessels initiative and there is broad support for further discussions. Staff is continuing discussions with U.S. EPA regarding the Cleaner Trucks Initiative and is in the process of scheduling a meeting with a cabinet member.

Council Member Buscaino expressed interest in participating in future discussions related to port operations.

Council Member Robinson noted that he visited a number of middle schools with Dr. Lyou and was impressed by what the students are doing to improve air quality in their communities. On January 23, 2019 he attended, along with Dr. Lyou, the State of the Port event in Long Beach and noted the great strides that have been made by the Port to improve air quality. He added that a number of steam ship lines are making the use of a “street-turn” strategy more challenging, when it should be encouraged.

Council Member Cacciotti announced that on January 3-7, 2019 he visited Harbin, China to present on air quality at the China International Ice Festival. He added that EVs have been rapidly introduced and accepted in China.

Dr. Parker announced that on January 19, 2019 he, Chairman Burke, Dr. Lyou and staff attended the Martin Luther King, Jr. Day of Service Forum in Los Angeles. He noted the importance of outreach in EJ areas.

Mayor Mitchell announced that she and Dr. Lyou visited the electric bus manufacturing assembly line for Proterra in the City of Industry. She added that CARB recently passed the Innovative Clean Transit measure that requires all public transit fleets to purchase zero-emission buses by 2029.

- Presentation to Outgoing Board Member Shawn Nelson

Chairman Burke presented an award to Shawn Nelson for his service on the Board from February 2011 to February 2019 as the representative for the County of Orange.

Supervisor Nelson expressed appreciation for the opportunity to serve on the Board and acknowledged the air quality accomplishments that have been made over the past several years.

CONSENT CALENDAR

1. Approve Minutes of January 4, 2019 Board Meeting
2. Set Public Hearing March 1, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations

Determine that Proposed Amendments to Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are Exempt from CEQA and Amend Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006

Budget/Fiscal Impact

3. Execute Contract to Develop Optimal Operation Model for Renewable Electrolytic Fuel Production
4. Amend Contract for Tier 4 Passenger Locomotives and Carl Moyer Program Award
5. Renew SCAQMD's Membership in CaFCP for Calendar Year 2019 and Receive and File California Fuel Cell Partnership Executive Board Meeting Agenda and Quarterly Updates
6. Amend Contract to Demonstrate Low NOx Combustion Technology on Refinery Boiler
7. Appropriate Funds and Amend or Execute Contracts with Outside Counsel and Specialized Legal Counsel and Services
8. Issue RFP for Consultant Services for SCAQMD's High School Air Quality Educational Program
9. Transfer and Appropriate Funds and Authorize Purchase of Kids Making Sense Kits

An errata sheet containing an amendment to the amount of requested funds was provided to the Board Members and copies were made available to the public.

10. Approve Contract Awards and Amendments as Approved by MSRC

Items 11 through 17 – Information Only/Receive and File

11. Legislative, Public Affairs and Media Report
12. Hearing Board Report
13. Civil Filings and Civil Penalties Report
14. Lead Agency Projects and Environmental Documents Received by SCAQMD
15. Rule and Control Measure Forecast
16. Status Report on Major Ongoing and Upcoming Projects for Information Management
17. Annual Report on 457 Deferred Compensation Plan

Dr. Lyou announced his abstention on Item Nos. 8 and 9 because Sonoma Technology is a potential source of income to him.

Supervisor Hahn announced her abstention on Item No. 7 due to campaign contributions from Klee, Tuchin, Bogdanoff & Stern.

Council Member Cacciotti noted that since he was not present at the January 4, 2019 Board Meeting, he would abstain from voting on agenda Item No. 1.

Mayor Pro Tem McCallon noted that he serves on the Board of Directors for the Southern California Regional Rail Authority and Metrolink which is involved with Item No. 4; and he is a member of the San Bernardino County Transportation Commission (SBCTA) which is involved with Item No. 10.

Supervisor Rutherford noted that she is a member of the SBCTA which is involved with Item No. 10.

Due to a number of requests to speak received on Consent Calendar items 3 through 10, the vote on the Consent Calendar was deferred until after those comments were made.

18. Items Deferred from Consent Calendar

3. Execute Contract to Develop Optimal Operation Model for Renewable Electrolytic Fuel Production

Jesse Marquez, Coalition for A Safe Environment, spoke in support of research and demonstration projects only if renewable hydrogen is not from fossil fuels.

Harvey Eder, Public Solar Power Coalition, expressed support for renewable energy and the use of solar power.

4. Amend Contract for Tier 4 Passenger Locomotives and Carl Moyer Program Award

Mr. Eder commented on economic inequities and urged support for solar renewables and equitable solar transition. He expressed concern for climate change and global warming.

5. Renew SCAQMD's Membership in CaFCP for Calendar Year 2019 and Receive and File California Fuel Cell Partnership Executive Board Meeting Agenda and Quarterly Updates

6. Amend Contract to Demonstrate Low NOx Combustion Technology on Refinery Boiler

7. Appropriate Funds and Amend or Execute Contracts with Outside Counsel and Specialized Legal Counsel and Services

10. Approve Contract Awards and Amendments as Approved by MSRC

Anabella Bastida, Council of Mexican American Federations, urged support for policies and measures to improve air quality in EJ communities that are most impacted by air pollution.

Marcia Tolentino, Green Education, expressed support for renewable energy projects that use solar and wind technologies.

MOVED BY NELSON, SECONDED BY BENOIT, AGENDA ITEMS 1 THROUGH 7 AND 10 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti (*except Item #1*), Hahn (*except Item #7*), Lyou, McCallon, Mitchell, Nelson, Parker, Perez, Robinson and Rutherford

NOES: None

ABSTAIN: Cacciotti (*Item #1 only*) and Hahn (*Item #7 only*)

Dr. Lyou left the room during discussion of Item Nos. 8 and 9.

8. Issue RFP for Consultant Services for SCAQMD's High School Air Quality Educational Program
9. Transfer and Appropriate Funds and Authorize Purchase of Kids Making Sense Kits

Mayor Pro Tem McCallon expressed concerns with the high cost and proposed approach to implement the proposed educational outreach program. He asked staff if they had contacted the Bay Area AQMD and the Maricopa County Air Quality Department to discuss the implementation of their programs and noted the differences in each of those programs. He suggested implementing the curriculum at a few schools in the AB 617 communities to start, and expanding the program if those efforts are successful.

Chairman Burke explained that the program has been in place for some time and noted the success of the program in previous years. He agreed that the program is costly and explained that he has asked the Administrative Committee to ensure that the program is equally administered in all areas of the District. He noted the importance of educating young people about air quality issues and since information from the program is often shared by the students with their parents, the outreach of the program is expanded.

Mayor Mitchell noted the importance of educating young people about air quality and agreed that the information learned is shared with parents, friends and neighbors. She noted the success of a similar program in her community sponsored by Waste Management.

Dr. Parker noted the gaps in school curriculum related to environmental issues and stressed the importance of educating young people about air quality issues particularly, in EJ communities.

Council Member Cacciotti asked about the coordination between the consultant and the equipment and curriculum provider. He noted the benefits of multi-sensory lesson plans and expressed support for the program.

Mr. Nastri explained that Sonoma Technology has extensive experience in the development of curriculum and will work with the consultant, teachers and District staff in the development of the program.

Council Member Buscaino shared how his son benefitted from an air quality program at his school that included monitoring in three places in the Harbor area. He noted that his son is now an advocate for clean air and has respect for the environment and environmental justice as a result of his participation in the program. He stressed the importance of expanding these types of programs into more areas in the District.

Supervisor Perez stressed the importance of education as a means to transform communities and expressed support for educational programs in EJ communities.

Council Member Benoit expressed support for the program and commented on the need to find additional funding to expand the program into more schools.

Mayor Pro Tem McCallon noted that while he initially felt the proposal was too broad in scope, the discussion on these items has influenced him to support the proposals.

MOVED BY MITCHELL, SECONDED BY
MCCALLON, AGENDA ITEMS 8 AND 9
APPROVED AS RECOMMENDED, WITH THE
MODIFICATION TO ITEM NO. 9 AS STATED
IN THE ERRATA SHEET AND SET FORTH
BELOW, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti,
Hahn, McCallon, Mitchell, Nelson,
Parker, Perez, Robinson
and Rutherford

NOES: None

ABSTAIN: Lyou

ABSENT: None

Amend language in Recommended Actions for Item No. 9 as follows:

Recommended Actions:

1. Transfer ~~\$276,875~~ \$294,207 from the BP ARCO Settlement Project Fund (46) to General Fund (01) Unassigned Fund Balance;
2. Appropriate ~~\$276,875~~ \$294,207 from General Fund Unassigned Fund Balance to Legislative, Public Affairs and Media's FY 2018-19 Budget, Services and Supplies Major Object, Professional & Specialized Services account; and,
3. Authorized the Procurement Manager to issue a sole source purchase order of one hundred *Kids Making Sense* Kits from Sonoma Technology, Inc. at the cost of ~~\$276,875~~ \$294,207.

MOVED BY CACCIOTTI, SECONDED BY NELSON, AGENDA ITEMS 11 THROUGH 17 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti,
Hahn, Lyou, McCallon, Mitchell,
Nelson, Parker, Perez, Robinson
and Rutherford

NOES: None

ABSENT: None

BOARD CALENDAR

19. Administrative Committee

20. Legislative Committee

21. Stationary Source Committee
22. Technology Committee
23. Mobile Source Air Pollution Reduction Review Committee
24. California Air Resources Board Monthly Report

Agenda Item 20 was withheld for comment and discussion.

MOVED BY LYOU, SECONDED BY CACCIOTTI, AGENDA ITEMS 19 AND 21 THROUGH 24, APPROVED AS RECOMMENDED, RECEIVING AND FILING THE COMMITTEE, MSRC AND CARB REPORTS, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Nelson, Parker, Perez, Robinson and Rutherford

NOES: None

ABSENT: None

20. Legislative Committee

Council Member Benoit and Supervisor Rutherford inquired about the accuracy of testimony by Aaron Hake of the Riverside County Transportation Commission (RCTC) reflected in the minutes of the January 10, 2019 Legislative Committee meeting regarding the proposed sales tax ballot measure.

Jill Whynot, Chief Operating Officer, noted that the RCTC expressed specific concerns and the willingness to work with the District on the measure. Staff can review the recording of the meeting for clarification and bring the minutes back to the Board at the next Board meeting.

Dr. Lyou commented that regional transportation agencies within the District are in need of funds to support their projects and asked whether some of the funds generated from the measure could be used to invest in public transportation projects.

Mr. Nastri responded that staff is willing to recommend projects to the Board that result in substantial NOx reductions and some of the major transit projects

could utilize Tier 4 engines or zero or near-zero emission buses. The Board would have the authority to approve projects that would be funded by the proposed measure.

Mayor Mitchell recommended that Item 20 be continued to the next Board meeting to allow staff to review the meeting record, and if warranted, provide clarification of Mr. Hake's testimony in the minutes.

Chairman Burke concurred with Mayor Mitchell's recommendation.

Staff Presentation/Board Discussion

25. Proposed Approach to Address Hydrogen Fluoride Storage and Use at Petroleum Refineries

Dr. Philip Fine, DEO/Planning, Rule Development and Area Sources, gave the staff presentation on Item No. 25.

The following individuals addressed the Board on Item 25.

Julia May, Communities for a Better Environment (CBE) (Submitted Written Comments on behalf of multiple environmental organizations and spoke on behalf of David Petit, Natural Resources Defense Council), spoke in support of the phase-out of MHF in four years or less and expressed opposition to an MOU approach. She added that enhanced mitigation measures cannot protect the community from a disastrous release of MHF and public health services are not prepared to deal with the serious and deadly effects of MHF exposure. She noted the significant dangers of a release in the densely populated areas of Torrance and Wilmington. She commented that the cost estimate for conversion to another alkylation process given in the presentation is unsubstantiated and stated that they have submitted documents showing similar sized refineries have converted their process for 100 to 400 million dollars. She added that refinery jobs will still be needed during construction and after the conversion so job loss is not a significant concern.

Paul Davis, PBF Energy/Torrance Refining Company LLC (TORC), indicated that the information that has been presented about HF and MHF from staff and the consultants is a misrepresentation. He explained there is extensive safety training and redundant and layered safety systems at TORC and added that they have begun implementing five safety mitigation projects to be completed by early 2020 that will provide additional safety enhancements at the refinery. He noted that a rule to phase-out MHF would derail the safety projects and stated there are no safer commercially viable alternatives. He expressed support for an MOU process that will allow variability to address both refineries' distinctly different alkylation technologies, safety systems and potential enhancements and provide certainty for workers, preserve California's fuel supply and allow for continued public participation.

Supervisor Rutherford asked for additional information on Cal/OSHA's regulation of the refinery and if the five safety projects are directly related to the alkylation process.

Darren Stroud, Counsel for TORC, stated that Cal/OSHA conducted a six month inspection of the facility from 2017 to 2018 that focused specifically on the alkylation unit to determine whether or not the unit was being operated safely. At the conclusion of that inspection, they found no mechanical integrity issues associated with the unit. During discussions with Cal/OSHA, and based on the tier two improvements staff was considering at the time, the refinery agreed to five safety enhancement projects that are to be completed by February 2020. These five projects consist of enhancing response time of the fire water system, changes to the console room to make it more user friendly as it relates to cameras and the deployment of water, improved state of the art detection systems around the acid loading part of the unit and installation of additional barriers to further enhance the already redundant, robust and layered system that exists to protect the community and workers, and expressed the commitment to implement additional safety enhancing projects.

Mark Phair, Valero Wilmington Refinery, noted that the Wilmington Refinery has safely used HF alkylation to make clean fuel for 37 years and have engaged in good faith with District staff and the community throughout the working group process. He noted concern that the staff presentation is misleading and that the mitigation systems at Valero provide extremely effective protections for employees and the community and added that a consequential release of MHF can be mitigated. He noted the substantial investment made to convert the unit to MHF under the MOU negotiated with the District in 2003 to address the same concerns around HF alkylation that are being raised now. Valero continues to honor the commitments made in the 2003 MOU and is willing to amend the existing MOU to add enhanced mitigation measures if directed by the Board. He noted that amending the existing MOU could allow for site specific solutions tailored to the unique design and circumstances of each refinery in an expeditious and fully transparent manner. He added that a phase-out of MHF is unnecessary and could have devastating economic consequences.

Sally Hayati, Torrance Refinery Action Alliance (TRAA) and Ban Toxic MHF, commented on the deaths that have occurred in the U.S., Mexico and Korea due to HF releases and noted that a release of MHF in Torrance or Wilmington would result in serious health effects and death. She noted the accidental near miss events at the Torrance Refinery and added that alternatives to MHF exist and conversion will not result in lost jobs or increased gasoline prices. She stated that mitigation measures cannot protect against the possibility of a catastrophic accident or event and urged support for a ban on MHF in four years or less.

Andrew DeBlock, representing Assembly Member Al Muratsuchi, expressed support for a rule to phase-out the use of MHF while allowing the refineries to continue to operate to ensure that refinery jobs are protected. (Submitted Written Comments)

Bill Reynolds, Torrance resident, expressed support for a ban of MHF and noted that many public officials have expressed support to ban MHF.

Brian Babb commented on a near miss event at the Torrance refinery in February 2015 and stated that his son, who attends school one mile from the alkylation unit, experienced a lock down and shelter in place situation at his school. He expressed support for a ban of MHF and noted that there is no safe distance within the community if a large release should occur. He stated support for refinery workers and noted that jobs would still be needed if the refineries convert to a safer alternative.

Mr. Eder expressed support for the phase-out of fossil fuels and conversion to solar electric transportation technologies. He added support for equitable renewable energy options for middle and low income people.

Katie Butler, Los Angeles County Department of Public Health, expressed support for a phase-out of MHF and noted the disastrous consequences that would occur should a large scale release occur.

Dr. Parker asked Ms. Butler if the County of Los Angeles is prepared to deal with a disastrous event.

Ms. Butler responded that she is not sure that the emergency preparedness unit would be able to respond to a large scale disaster and cited the Aliso Canyon natural gas release as an example where 10,000 people were affected and an entire public health workforce responded which sacrificed other public health services in the County.

Florence Gharibian, Del Amo Action Committee, commented that MHF is an extremely dangerous chemical and noted the serious health consequences related to exposure to MHF. She added that emergency rooms and hospitals would not be able to adequately respond to victims of a catastrophic release of MHF. She added support for a ban of MHF and noted that safer alternatives exist.

Alicia Rivera, CBE
Ashley Hernandez, CBE
Elizabeth Ortiz, CBE
Daisy Marquez, CBE
*Carrie Scoville, San Pedro Democratic Club
Sylvia Arredondo

Art Gonzales, CBE
Esperanza Romero, CBE
Constance Sullivan, TRAA
*Alfred Sattler, Sierra Club
Michael Jelf
David Boule, TRAA
*Genghmun Eng
Reggie Huang
Dorothy Moore, TRAA
*Steve Goldsmith, TRAA
Steve Dillow
Cathy Luciano
Judith Herman
Monica Embrey, Sierra Club
Roger Schamp
Angélica Gonzalez, Sierra Club
Seth Kaufman, Torrance resident
Kamyra Sud, Environmental Defense Fund
*Jesse Marquez, Coalition for a Safe Environment
Art Mares, CBE
Laura Espinosa
Isabel Alvarenga, Student
Danny Perez
Luis Martinez, CBE
Yvonne Martinez Watson, Sierra Club

Expressed support for strong rulemaking to phase-out and ban MHF in four years or less. They noted the catastrophic consequences should a release occur and stated that mitigation measures cannot adequately protect the public. Added that MHF is a dangerous chemical that should not be stored or used in densely populated areas and noted that safer alternatives exist. Urged the Board to take action to protect EJ communities near the refineries. *(Submitted Written Comments)

Roy Jacobs, Brand Scaffolding Services
Steven Donahue, Scaffolding Southwest Carpenters
Ray Lawson, Southwest Regional Council of Carpenters (SWRCC)
*Ron Miller, Californians for a Sustainable Economy on behalf of 2000+ elected officials, community organizations and individuals
Joseph Goldblatt, Brand Scaffolding Services
Cesar Díaz, State Building & Construction Trades Council
Jorge Quintero, SWRCC
Michael Wolf, Aegon
Rudy Rodriguez
David Junco, Fluor

George Vazquez

Albert Hernandez, former refinery worker

Noted their opposition to a ban or phase-out of MHF and expressed concern about the economic impact a phase-out rule would have on the community and the potential loss of jobs. Expressed support for a MOU approach to allow for an individualized approach to implementing enhanced safety technology and mitigation measures. They commented on the advanced safety training and mitigation measures utilized at the refineries and strict regulations in place by Cal/OSHA. *(Submitted Written Comments)

Dan Hoffman, Wilmington Chamber of Commerce

Bridget McCann, Western States Petroleum Association

Alicia Baltazar

*Sarah Wiltfong, BizFed

Chanel Frampton, Greater Los Angeles African American Chamber of Commerce

Lee Harmon

Minh Luu, Boys and Girls Clubs of Long Beach

Kendal Asuncion, Los Angeles Chamber of Commerce

*Janet Whittick, California Council for Environmental and Economic Balance

Andrés Tejeda, Boys & Girls Clubs of LA Harbor

John Pang, United Way

Demetrius Stevenson, United Way of Greater LA

*Armando Flores, Valley Industry & Commerce Association

*Donna Duperron, Torrance Chamber of Commerce

Jeremy Harris, Long Beach Area Chamber of Commerce

Connor Medina, Orange County Business Council

Expressed support for an MOU process that would allow enhanced safety mitigation measures to be specifically designed for each refinery and preserve jobs in the community. Expressed concerns about the economic impacts to the state and local community and the resulting loss of jobs should the refineries close. Noted the community support the refineries provide to non-profit agencies that benefit the community. *(Submitted Written Comments)

Written Comments Submitted by:

Bill Manis, San Gabriel Valley Economic Partnership

Los Angeles County Business Federation

Tim Shestek, American Chemistry Council

Assembly Member Mike A. Gipson

Assembly Member Bill Quirk

Rebekah Potter

Randy Gordon, Long Beach Area Chamber of Commerce

Jesse Urquidi, Harbor Association of Industry and Commerce

Borzoo Rezai

June Lucero

Caryl Schwartz

Eileen Hupp, South Bay Association of Chambers of Commerce

Brian Cummins, TORC

Senator Benoit Hueso

Assembly Member Adam C. Gray

Steve Steach, TORC

Maureen Mauk

Alicia Berhow, Orange County Business Council

Charles Gale, Redondo Beach Chamber of Commerce & Visitors Bureau

Sam Tanski

Brittany Goldsmith

Catherine Tanski

Liberato Di Bernard
Charles P. Walker Jr.
Paul Zbyszewski
Bryn Zbyszewski
Lucia Wolf
Steven Unger
C. Beverly Clower
James M. Wheeler
Angelo Vukelja
Alyssa Solorio
Shelly Browning, MD
Jeannie Dean-Brown
Susan Heisler
Sonomi Deguchi
Stacey Arenstein
Cheista Greenfader
Rachele Maurer
Shannon McCall
Ashley Bills
Mitzi Shitanda
Janice Ling
Curt D. Barton
Anita Dixon
Maria Manansara
Karen Czap

Amy Takaki
Kim Bosell
Patricia Crane
Varinder Mohan
Carlos Camargo
Gregory E. DeValera
Katherine Hood
Joyce T. White
Shuja Habib Oberoi
Robert H. Zymet
Daniel Krockel
Linda Brown
Monica Van Stelton
Yi Mei Lo
Sara Castillo
Carol Bonning
Alene Gardner
Robert Cephus
Mark Arellano
Katherine Abel
Cheryl Frick
Russ Rucher
Mark Schwartz
Caryl Schwartz
Celina N. Flores

Supervisor Nelson commented that the mission of the SCAQMD is to clean the air and that MHF is already a heavily regulated substance. The District should look to other regulatory agencies to address this matter.

Council Member Cacciotti requested clarification on the action that is required by the Board at this time. He also asked what percentage of operations at each facility uses HF or MHF for production.

Mr. Nastri responded that staff seeks the Board's comments and direction on how to proceed. At their September 22, 2018 meeting, the Refinery Committee directed staff to develop a rule or MOU to phase-out MHF or demonstrate, based on enhanced mitigation measures, that they meet a performance standard. The Refinery Committee further directed staff to bring this discussion to the full Board.

In response to Council Member Cacciotti's question regarding the percentage of operations using MHF, Dr. Fine responded that based on information from a couple of years ago, the total volume of production of alkylate is about 16% at TORC and 26% at Valero.

Dr. Lyou commented that the role of the SCAQMD is to protect public health even beyond national and state ambient air quality standards. He noted that the District worked for many years on a phase-out of HF with Rule 1410 but a lawsuit resulted in the rule being invalidated due to a CEQA procedural error. A MOU was

signed with Ultramar to phase out HF and allow the use of MHF and the decision was made to not pursue re-adoption of Rule 1410. He noted that staff has studied the use of MHF and determined that a release of MHF would have severe consequences to the public. He stressed the authority and responsibility that the Board has to act on this issue. He expressed opposition to performance standards which cannot protect against catastrophic releases. He commented on the importance of a public process to allow transparency and public input and added that a MOU process does not offer the same guarantees to the public in terms of public involvement. He urged support for regulations to phase-out MHF as soon as possible. He thanked all the individuals who provided testimony on this item.

Mayor Pro Tem McCallon commented on the number of meetings that have been held regarding MHF at the Refinery Committee and the need to take action.

MAYOR PRO TEM MCCALLON MOVED TO DIRECT STAFF TO DEVELOP AN MOU WITH EACH REFINERY THAT ALLOWS FOR SAFETY ENHANCEMENTS SPECIFIC TO EACH REFINERIES' MHF ALKYLATION UNIT AND THE MOUs ONCE DEVELOPED AND DRAFTED BE BROUGHT BACK TO THE BOARD WITHIN 90 DAYS FOR FINAL APPROVAL. THE MOTION WAS SECONDED BY SUPERVISOR RUTHERFORD.

Mayor Mitchell expressed opposition to the motion and commented that all Board members have not had the same opportunity as the Refinery Committee members to participate in meetings and review the complex issues. She suggested that Board members ask questions of staff, request additional information, and direct staff to bring the item back to the Board in 90 days. She noted that one area she would like explored further is the potential job loss should the refineries close. She also requested additional information about the timing of MHF phase out, information about the other alkylation chemicals, and whether the refinery would still be able to operate while in transition and if they are unable to continue operating what the impact on jobs would be. She also asked if there is a CEQA process with an MOU approach and how long that process would take. She expressed her support for rulemaking and concurred with Dr. Lyou that performance standards cannot be created for large scale releases. She expressed support for a phase-out that would preserve jobs and assist the refineries through the conversion process without great loss of income or downtime.

Dr. Parker noted that the issue of the phase out of MHF is a serious and complex issue. He explained the lethal properties of MHF and the studies that have shown that a release could result in serious health effects and deaths. He noted the number of scientists and consultants who have provided information about MHF to assist the Refinery Committee.

Council Member Robinson expressed support for Mayor Pro Tem McCallon's motion and commented that the Board has received an abundance of information and testimony on this topic. He added that as Supervisor Rutherford mentioned it is Cal/OSHA's responsibility to protect workers who are the most vulnerable if a release occurs and concurred with Supervisor Nelson that the primary mission of the SCAQMD is to clean the air and not to regulate lethal chemicals. He expressed concern with a short phase out which could result in the use of sulfuric acid which is not commercially proven at this time and would result in an increase in fifty more truck trips per day which would increase NOx emissions and is contradictory to the mission of the SCAQMD.

Mayor Mitchell inquired if advanced sulfuric acid is commercially proven and whether truck trips would increase if it was utilized.

Susan Nakamura, Assistant DEO/Planning, Rule Development and Area Sources, explained that there are two technologies for advanced sulfuric acid, one is CDA/ky which is commercially available and the other is ConvEx which is not yet commercially proven. She added that truck traffic would be less with the CDA/ky method which is currently being installed at two Valero locations.

Supervisor Hahn expressed opposition to entering into an MOU and relying on performance standards which cannot prevent an accidental or catastrophic release and protect the public and workers. She noted concern for the closure of the refineries and the potential job losses and added that it may be possible to seek state or federal funding to assist refineries with conversion costs.

Supervisor Rutherford concurred that an abundance of information has been distributed in order to make an informed decision on this matter. She stressed that the Board cannot prevent every disaster that could result because of natural or human causes. She urged support for Mayor Pro Tem McCallon's motion to proceed with an MOU with both refineries and that the proposals be brought back to the Board within 90 days.

Chairman Burke noted that the information that has been received has revealed that MHF is more dangerous than initially thought and noted the importance of coming to an agreement that protects the public.

CHAIRMAN BURKE MADE A SUBSTITUTE MOTION TO DIRECT STAFF TO WORK WITH BOTH THE COMMUNITY AND INDUSTRY OVER THE NEXT 90 DAYS TO REACH A RESOLUTION TO PRESENT TO THE REFINERY COMMITTEE FOR REVIEW AND RECOMMENDATION TO THE FULL BOARD. THE MOTION WAS SECONDED BY MAYOR MITCHELL AND CARRIED BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti, Hahn, Lyou, Mitchell, Parker, and Perez

NOES: Nelson, McCallon, Robinson and Rutherford

ABSENT: None

26. Status Report on Regulation XIII – New Source Review

The presentation on Item No. 26 was waived.

INFORMATION ONLY; RECEIVE AND FILE.

PUBLIC HEARINGS

27. Determine that Proposed Amendments to Rule 1403 - Asbestos Emissions from Renovation/Demolition Activities are Exempt from CEQA and Amend Rule 1403

Mr. Nastri announced that staff has requested that this item be withdrawn from consideration.

Written Comments Submitted by:
Coalition of Water, Power and Gas Utilities

28. Determine that Proposed Amendments to BACT Guidelines and Charter for BACT Scientific Review Committee Are Exempt from CEQA, and Amend BACT Guidelines and Charter for BACT Scientific Review Committee

The presentation on Item No. 28 was waived.

The public hearing was opened and the following individual addressed the Board on Item 28.

Mr. Eder commented on the cost effectiveness of solar power and asked that it be evaluated as BACT. He noted the progress that BYD Auto Company has made in electric Class 8 trucks and expressed support for solar-electric trucks. He added support for solar renewables and expressed concern for premature deaths related to air pollution.

There being no further testimony of this item, the public hearing was closed.

MOVED BY LYOU SECONDED BY
ROBINSON, AGENDA ITEM NO. 28
APPROVED, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino,
Cacciotti, Hahn, Lyou, McCallon,
Mitchell, Parker, Perez
Robinson and Rutherford

NOES: None

ABSENT: Nelson

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3)

Mr. Eder expressed concerns about investor-owned utilities and the need to facilitate more Community Choice Aggregation and the purchase of the electrical transmission system by the State of California. He commented on climate change and the recent wild fires.

Chairman Burke noted that he recently met with Southern California Edison regarding a plan to diminish fire risks which may necessitate some changes to the District's rule for emergency backup generators.

Margaret Peters expressed health concerns related to increased air pollution in South Los Angeles due to increased vehicle and air traffic from LAX and asked the Board to consider including this area in MATES V studies. She commented that more community outreach is needed in EJ communities.

Dr. Lyou and Council Member Buscaino expressed interest in meeting with Ms. Peters about her concerns.

CLOSED SESSION

The Board recessed to closed session at 2:05 p.m., pursuant to Government Code sections:

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

- 54956.9(a) and 54956.9(d)(1) to confer with its counsel regarding pending litigation which has been initiated formally and to which the SCAQMD is a party. The actions are:

In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);

SCAQMD v. Anaplex, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);

People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;

In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case); and

People of the State of California, ex rel South Coast Air Quality Management District v. The Sherwin-Williams Company, an Ohio Corporation, and Does 1 through 50, Inclusive, Los Angeles Superior Court Case No. PSCV 00136.

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

- 54956.9(d)(2) to confer with its counsel because there is a significant exposure to litigation against the SCAQMD (one case)—Letter from Steven J. Olson, O'Melveny & Myers LLP, on behalf of ExxonMobil Corporation, dated August 22, 2018.

Following closed session, Mr. Gilchrist announced that a report of any reportable actions taken in closed session will be filed with the Clerk of the Board's office and made available to the public upon request.

ADJOURNMENT

There being no further business, the meeting was adjourned by Mr. Gilchrist at 2:30 p.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on February 1, 2019.

Respectfully Submitted,

Denise Garzaro
Clerk of the Boards

Date Minutes Approved: _____

Dr. William A. Burke, Chairman

ACRONYMS

BACT = Best Available Control Technology
Cal OSHA = California Division of Occupational Safety and Health
CARB = California Air Resources Board
CEQA = California Environmental Quality Act
EJ = Environmental Justice
EV = Electric Vehicle
FY = Fiscal Year
HF = Hydrofluoric Acid
MATES = Multiple Air Toxics Exposure Study
MHF = Modified Hydrofluoric Acid
MOU = Memorandum of Understanding
MSRC = Mobile Source (Air Pollution Reduction) Review Committee
NOx = Oxides of Nitrogen
RFP = Request for Proposals
U.S. EPA = United States Environmental Protection Agency
VOC = Volatile Organic Compound

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 2

PROPOSAL: Set Public Hearing April 5, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations

Certify Final Subsequent Environmental Assessment and Amend Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

The adoption Resolution of the Final 2016 AQMP directed staff to achieve additional NO_x emission reductions and to transition the RECLAIM program to a command-and-control regulatory structure as soon as practicable. Proposed Amended Rule 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines and is being amended to update NO_x emission limits to reflect current BARCT, establish ammonia emission limits, and provide implementation timeframes to facilitate the transition of the NO_x RECLAIM program to a command-and-control regulatory structure. The proposed amended rule also establishes provisions for monitoring, reporting, and recordkeeping. Other provisions are incorporated to remove obsolete provisions and provide clarifications. This action is to adopt the Resolution: 1) Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, and 2) Amending Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines. (Reviewed: Stationary Source Committee, February 15, 2019)

The complete text of the proposed amendments, staff report and other supporting documents will be available from the SCAQMD's Public Information Center, (909) 396-2001 and on the Internet (www.aqmd.gov) as of March 6, 2019.

RECOMMENDED ACTION:

Set Public Hearing April 5, 2019 to Amend Rule 1134.

Wayne Nastri
Executive Officer

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 3

PROPOSAL: Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, and Reimburse General Fund for Administrative Costs

SYNOPSIS: U.S. EPA is executing a Supplemental Environmental Project (SEP) agreement and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. This action is to recognize up to \$161,352 into the Air Filtration Fund (75). These actions are to also execute agreements to install and maintain air filtration systems in an amount not to exceed \$153,284; execute or amend access agreement with a local school district; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to \$8,068 for SEP administration.

COMMITTEE: Technology, February 15, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize up to \$161,352 from Veolia ES Technical Solutions, LLC, for a SEP being administered on behalf of the U.S. EPA into the Air Filtration Fund (75);
2. Authorize the Executive Officer to execute agreements with Veolia ES Technical Solutions, LLC, for SCAQMD to implement a SEP for installation and maintenance of air filtration systems and to execute or amend agreements with Azusa Unified School District for the purpose of implementing a SEP;
3. Authorize the Chairman to execute a contract with IQAir North America for installation and maintenance of air filtration systems at schools in an amount not to exceed \$153,284 from the Air Filtration Fund (75);
4. Authorize the Chairman to amend, as needed, a contract with IQAir North America which is funded by an Air Filtration SEP or approved by this Board letter to purchase additional filters using unspent administrative funds; and

5. Reimburse the General Fund from the Air Filtration Fund (75) for administrative costs up to \$8,068, as needed, to implement the air filtration project.

Wayne Nastri
Executive Officer

MMM:NB:PSK

Background

U.S. EPA is executing a Supplemental Environmental Project (SEP) agreement with Veolia ES Technical Solutions, LLC, (Veolia) to install and maintain air filtration systems at schools in Environmental Justice (EJ) communities or geographical target areas identified by the SEP agreement and has asked SCAQMD to act as the SEP Implementer.

IQAir North America (IQAir) was previously selected through two separate competitive bid processes in 2011 and 2013 for air filtration projects, and staff subsequently performed a technology status check to ensure no new technologies had come on the market. Furthermore, IQAir is the only qualified manufacturer of high performance panel filters and stand-alone units which met the performance standards in SCAQMD's 2009 air filtration pilot study as well as through a national testing opportunity conducted in 2010 by the University of California Riverside's College of Engineering/Center for Environmental Research and Technology. These performance standards include an average removal efficiency of at least 85 percent for ultrafine PM, black carbon and PM2.5, and noise level below 45 decibels for stand-alone units. To date, SCAQMD has installed air filtration systems at 84 schools and community centers.

Proposal

U.S. EPA staff have requested that schools receiving air filtration systems for this SEP be within the Azusa Unified School District (USD), located closest to the Veolia facility and major freeways, with project completion to occur by April 30, 2019. The funding includes five percent for reimbursement of administrative costs.

The proposed schedule for installation and maintenance of air filtration systems in one or more schools in Azusa USD is as follows:

Date	Event
March 2019	Board Approval
March 2019	Anticipated Execution of Contracts
March 2019	Selection of Schools, Site Assessments
March–April 2019	Installation
April 2019–April 2023	Maintenance (varies by school)
August 2019	Final Report

These actions are to: 1) recognize up to \$161,352 from the SEP agreement into the Air Filtration Fund (75); 2) authorize the Executive Officer to execute an agreement with Veolia and execute or amend an agreement with Azusa Unified School District to implement the SEP for installation and maintenance of air filtration systems; 3) execute an agreement with IQAir North America for installation and maintenance of air filtration systems at schools in an amount not to exceed \$153,284; 4) amend, as needed, contracts with IQAir North America funded by other air filtration SEPs to purchase additional filters using unspent administrative funds from the respective SEPs; and 5) reimburse the General Fund from the Air Filtration Fund (75) for administrative costs up to \$8,068.

Sole Source Justification

Section VIII. B. 2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.c (1): The desired services are available from only the sole-source based upon the unique experience and capabilities of the proposed contractor or contractor team. IQAir remains the only manufacturer of high performance panel filters and stand-alone units identified by SCAQMD and CARB staff that meet the performance standards required to complete the work.

Benefits to SCAQMD

This project will reduce children's exposure to criteria and toxic pollutants and ultrafine PM. Health studies have determined that fine and ultrafine PM, including diesel PM, present the greatest air pollution health risk to sensitive receptors in EJ communities identified in the SEP agreement.

Resource Impacts

The new contract with IQAir will not exceed \$153,284, and any contract amendment with IQAir to purchase additional filters will not exceed the amount of any unspent administrative fees. Reimbursement of administrative costs will not exceed \$8,068.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 4

PROPOSAL: Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2018-19 Carl Moyer Program Award, Issue Program Announcements for Carl Moyer Program and SOON Provision, and Transfer Funds for Voucher Incentive Program

SYNOPSIS: These actions are to adopt a Resolution recognizing up to \$31 million in Carl Moyer Program grant funds from CARB under SB 1107 with its terms and conditions for FY 2018-19 and issue Program Announcements for “Year 21” of the Carl Moyer Program and SOON Provision to provide incentive funding for zero and low emitting on- and off-road vehicles and equipment. Funding for the Carl Moyer and SOON projects will be provided from the Carl Moyer Program SB 1107, AB 923 and other funds that may become available for projects eligible under the Carl Moyer Program. This action is to also transfer \$3 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) to continue funding truck replacement projects on a first-come, first-served basis.

COMMITTEE: Technology, February 15, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

1. Adopt the attached Resolution recognizing upon receipt up to \$31 million from CARB into the Carl Moyer Program SB 1107 Fund (32), and authorize the Executive Officer to accept the terms and conditions of the FY 2018-19 Carl Moyer Program grant award;
2. Issue Program Announcement (PA) #PA2019-02 to solicit projects for the FY 2018-19 “Year 21” Carl Moyer Memorial Air Quality Standards Attainment Program;
3. Issue Program Announcement #PA2019-01 to solicit projects for the SOON Provision; and

4. Approve the transfer of \$3 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) to continue funding truck replacement projects on a first-come, first-served basis.

Wayne Natri
Executive Officer

MMM:NB:VW

Background

The Carl Moyer Memorial Air Quality Standards Attainment Program (CMP) and the Surplus Off-Road Opt-in for NO_x (SOON) Provision provide incentive funding for the incremental cost of purchasing cleaner than required engines and equipment. The CMP also allows funding for infrastructure projects that enable the deployment of advanced, cleaner technologies, including zero and near-zero emissions vehicles, which are needed to support the State's air quality goals. Both programs are funded with Carl Moyer Program SB 1107 and AB 923 funds. This is the 21st year of the CMP and the 15th year of the SOON Program.

The SCAQMD has expended about \$38 million in incentive funds for the replacement of 1,121 older diesel trucks with cleaner, lower-emitting vehicles through the CMP On-Road Heavy-Duty Vehicles Voucher Incentive Program (VIP). Additional funds are needed to transfer to the VIP Fund (59) to continue the successful implementation of this program.

Proposal

These actions are to adopt the attached Resolution recognizing upon receipt up to \$31 million from CARB into the Carl Moyer Program SB 1107 Fund (32) for implementation of the FY 2018-19 "Year 21" CMP and authorize the Executive Officer to accept the terms and conditions of the FY 2018-19 CMP grant award. CARB has tentatively allocated \$30,469,967 to the SCAQMD. Of this amount, \$28,565,594 is designated for project funding and the General Fund will be reimbursed up to \$1,904,373 for administrative and outreach efforts. In addition, \$4,570,495 is required from the SCAQMD as the local match, which will be provided from AB 923 funds.

This action is to also issue PAs #PA2019-02 and #PA2019-01 for the Carl Moyer Program and the SOON Provision, respectively. The approximate amounts of available funding from SB 1107 and AB 923 funds are \$28 million for the Carl Moyer Program and \$4 million for the SOON Provision. In the last two funding cycles of the CMP, the SCAQMD received additional funding beyond the CMP allocation of over \$100 million for eligible projects under the CMP. These additional funds were allocated to SCAQMD from the AB 134 Community Air Protection Program, CMP State Reserve,

Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program, and the Voluntary NOx Remediation Measure (NRM) Funding grant. At least 87 percent of these funds were awarded to projects that will reduce emissions in disadvantaged and low-income communities. SCAQMD anticipates receiving additional funds for this year's CMP, which may include funds in support of AB 617-Community Air Protection projects and the FARMER Program. Staff will provide a detailed account of available and awarded funds for the CMP, including earned interest and returned project funds, AB 923 and any additional sources of funding at the time of awards recommendations.

The Carl Moyer PA will solicit applications from equipment owners for projects that involve the retrofit, repower or replacement of older, in-use on-road vehicles, off-road equipment (including agricultural equipment), locomotives, marine and other heavy-duty vehicles and equipment with cleaner technologies. The Carl Moyer PA will also solicit applications for infrastructure projects that support zero or near-zero emissions vehicles and equipment.

The SOON Provision is designed to achieve additional NOx emissions reductions above those that would be obtained from CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation. The SOON Provision PA will solicit projects that involve the retrofit, repower or replacement of off-road vehicles with cleaner technologies. As in previous years, SCAQMD will only fund diesel-to-diesel applications when alternative fuel engines/vehicles are not commercially available or certified by CARB, except for emergency vehicles.

The Carl Moyer Program Guidelines approved by CARB on April 27, 2017, will be utilized for the evaluation of projects submitted under the "Year 21" Carl Moyer and SOON Provision PAs. Applicants will be able to submit their applications for both the Carl Moyer Program and the SOON Provision online. Proposals for all categories will be due by 1:00 pm on Tuesday, June 4, 2019. Staff expects to finalize the review and evaluation of the proposals and recommend awards for Board consideration at the October 2019 Board meeting. The Carl Moyer Program and the SOON Provision PAs are attached.

Finally, this action is to approve the transfer of \$3 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) to continue funding truck replacement projects for small fleets on a first-come, first-served basis.

Funding Distribution

The CMP Guidelines include the requirement that at least 50 percent of the program funds be expended on projects that will reduce emissions in disproportionately impacted areas, with the allowance for air districts to track this on a cumulative basis. At least

half of the funding allocated under SB 1107 and collected under AB 923 will be awarded to projects in disproportionately impacted areas. It has been the policy of the SCAQMD to allocate at least 50 percent of all funding available for the CMP and the SOON Provision, including roll-over funds from previous years and any returned funds from projects that fall through, to projects that will reduce emissions in disproportionately impacted areas.

Staff will utilize the latest version of CalEnviroScreen for identification of projects in disadvantaged communities as well as identification of projects that are located within half a mile of a disadvantaged or low-income community, pursuant to the provisions of AB 1550 (2016), which amended California Climate Investments for disadvantaged communities and established new investment minimums for low-income communities and households. A detailed distribution list of the recommended projects and a description of SCAQMD's outreach efforts during the solicitation period will be provided to the Board at the time of the awards recommendations.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the PAs and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the PAs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov>) where it can be viewed by making menu selection "Grants & Bids."

Program Guideline

At its July 8, 2005 meeting, the Board approved a long-term Program Guideline for the implementation of the Carl Moyer Program in the South Coast Air Basin. The proposed funding distribution for different equipment categories in this Board letter is made according to the criteria outlined in that Guideline with emphasis on the following priorities in order to achieve the highest emissions reductions:

- Goods Movement (40 percent allocation);
- Environmental Justice (50 percent allocation);
- Cost-Effectiveness;
- Low Emission Engine/Vehicle Preference;
- Early Commercialization of Advanced Technologies/Fuels;
- Fleet Rules; and
- School Buses.

Benefits to SCAQMD

The SCAQMD has supported a number of activities directed to the advancement of new technologies that will support progress in meeting air quality goals for the region. The successful implementation of the Carl Moyer Program and the SOON Provision are direct results of these technology advancement activities. The vehicles and equipment funded under these Program Announcements will operate for many years, providing long-term emissions reductions.

Resource Impacts

CARB has tentatively allocated \$30,469,967 to the SCAQMD for implementation of the FY 2018-19 “Year 21” CMP. Of this amount, \$28,565,594 is designated for project funding and the General Fund will be reimbursed up to \$1,904,373 for administrative and outreach efforts. These funds will be recognized into the Carl Moyer Program SB 1107 Fund (32). In addition, \$4,570,495, which will be provided from AB 923 funds, is required as the local match from the SCAQMD.

The transfer from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) will not exceed \$3 million.

Attachments

1. Resolution
2. SOON Provision Program Announcement #PA2019-01
3. Carl Moyer Program Announcement #PA2019-02

RESOLUTION NO. 19-

**A Resolution of the South Coast Air Quality Management District Governing
Board Recognizing Funds and Accepting the Terms and Conditions of the
FY 2018-19 Carl Moyer Grant Award**

WHEREAS, under Health & Safety Code §40400 et seq., the South Coast Air Quality Management District (SCAQMD) is the local agency with the primary responsibility for the development, implementation, monitoring and enforcement of air pollution control strategies, clean fuels programs and motor vehicle use reduction measures; and

WHEREAS, the SCAQMD is authorized by Health & Safety Code §§40402, 40440, and 40448.5 as well as the Carl Moyer Memorial Air Quality Standards Attainment Program (§44275, et seq.) to implement programs to reduce transportation emissions, including programs to encourage the use of alternative fuels and low-emission vehicles; to develop and implement other strategies and measures to reduce air contaminants and achieve the state and federal air quality standards; and

WHEREAS, the Governing Board has adopted several programs to reduce emissions from on-road and off-road vehicles, as well as emissions from other equipment, including the School Bus Incentive Program and the Carl Moyer Program; and

WHEREAS, the SCAQMD is designated as an extreme non-attainment area for ozone and as such is required to utilize all feasible means to meet national ambient air quality standards.

THEREFORE, BE IT RESOLVED that the Governing Board, in regular session assembled on March 1, 2019, does hereby authorize the Executive Officer to accept the terms and conditions of the FY 2018-19 (Year 21) Carl Moyer Program grant award and recognizes up to \$31 million in SB 1107 funds from the California Air Resources Board.

BE IT FURTHER RESOLVED that the Executive Officer is authorized and directed to take all steps necessary to carry out this Resolution.

Date

Denise Garzaro, Clerk of the Boards



Surplus Off-Road Opt-In for NOx (SOON)

SCAQMD PROGRAM ANNOUNCEMENT #PA2019-01

The South Coast Air Quality Management District (SCAQMD) is soliciting project proposals for the following purpose according to terms and conditions attached. In this Program Announcement (PA) the words "Proposer," "Applicant," "Contractor," and "Consultant" are used interchangeably.

SECTION I – OVERVIEW

PURPOSE

The SCAQMD is seeking proposals for the Surplus Off-Road Opt-In for NOx (SOON) Provision of the California Air Resources Board's (CARB's) In-Use Off-Road Diesel Vehicle Regulation. The primary purpose of this Program is to provide financial incentives to assist in the purchase of zero or lower-emission heavy-duty engine technologies to achieve near-term nitrogen oxides (NOx) emission reductions from in-use off-road equipment. Since funding for the SOON Program is from the Carl Moyer Program (CMP), all CMP requirements apply to this Program, except where specifically noted, or where the SCAQMD implements more stringent program criteria as described in the Rule 2449 SOON Implementation Guidelines.

INTRODUCTION

The SOON Program is designed to achieve additional NOx reductions above those that would be obtained from the State In-Use Off-Road Vehicle Regulation. These reductions are critical to meeting the PM2.5 and ozone ambient air quality standards in the South Coast Air Basin.

Funding for Program Announcement #PA2019-01 is from the CMP and AB 923 funds. Project awards are contingent upon receiving these funds from CARB. Additional sources of funding may become available and added to this Program.

Eligible projects must meet a maximum cost-effectiveness limit of \$30,000 per ton of emissions reduced and any additional SCAQMD criteria as stated in this PA. For advanced technology projects that are zero-emission, or alternatively meet the cleanest certified optional standard applicable, SCAQMD may apply a cost-effectiveness limit of up to \$100,000 per weighted ton, for the incremental emission reductions that go beyond current emission standards. Projects exceeding the cost-effectiveness limit may receive partial funding up to the cost effectiveness limit or will be deemed ineligible. Except where otherwise stated, projects must meet the requirements of the CMP program guidelines.

Applications submitted in response to this PA will be evaluated according to the approved 2017 CMP Guidelines. It is the applicant's responsibility to ensure that the most current information and requirements are reflected in a submitted application. Applicants should check the CARB website for updates and advisories to the guidelines

<http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>.

SCAQMD SOON requirements may sometimes be more stringent than CARB guidelines. For example, SCAQMD may have a lower cost-effectiveness ceiling for a particular category. In case there are any conflicts between CARB guidelines and SCAQMD criteria, the more stringent criteria will prevail. SCAQMD will post any new information and requirements on its SOON Web page at www.aqmd.gov/soon. It is the responsibility of the applicant to ensure that the most current information and requirements are reflected in a submitted application.

DEFINITIONS

1. Alternative Fuel

Alternative fuels include compressed natural gas (CNG), liquefied natural gas (LNG), methanol, ethanol, propane (LPG) and electric technologies.

2. Base Rule

Base rule is defined as CARB's In-Use Off-Road Diesel regulation without the SOON provisions. Compliance with the Base Rule is required and is demonstrated by the DOORS Compliance Snapshot.

3. Compliance Plan

Compliance plan is the future forecast of fleet average emissions using current fleet information and planned future repower, replacement, retirement and retrofit projects. An Excel spreadsheet template is available on the SCAQMD SOON webpage.

4. Contract Term

Contract term is the duration for which the contract is valid. It encompasses both the project completion and project implementation periods.

- i. Project completion period is the first part of the Contract term starting from the date of Contract execution by both parties to the date the project post-inspection confirms that the project has become operational.
- ii. Project implementation period is the second part of the Contract term and equals the project life.

5. Cost-Effectiveness Limit

The cost-effectiveness limit determines the maximum funding that can be provided to an individual vehicle repower, replacement or retrofit project for each ton of emissions reduced.

6. Current NOx Standard

For all engine horsepower categories, the current NOx standard in 2018 is Tier 4 Final.

7. Dual-Fuel Technology

Dual-fuel technology includes electric hybrids and technologies that utilize a combination of either CNG and diesel fuel or LNG and diesel fuel, provided they are certified by CARB. Experimental technologies and fuels will be referred to CARB for evaluation and possible eligibility in the program.

8. Incremental Cost

Incremental cost is the percent of actual cost that is eligible for SOON funding. For repower projects, it is 85%; for replacement projects, it is 80%; and for NOx retrofit projects, it is 100%.

9. Project Life

Project life is the period of the contract term during which the repowered, replacement or retrofitted vehicle is operated and the contractor must report annual usage. It is used to calculate the cost effectiveness and funding amount for a particular project.

10. Replacement Project

Replacement project is the purchase of a new or used vehicle to replace an existing vehicle. Only new vehicles meeting Tier 4 Final emissions standards are eligible for funding.

11. Repower Project

Repower project is the replacement of an old engine of an existing vehicle with a newer engine certified to lower emission standards.

12. Retrofit Project

Retrofit project is a modification made to an engine exhaust and/or fuel system such that the specifications of the retrofitted engine are different from the original engine.

GENERAL PROGRAM INFORMATION

The primary focus of the SOON Program is to achieve emission reductions from heavy-duty off-road vehicles and equipment operating in California as early and as cost-effectively as possible. The SOON Program is intended to achieve additional NOx reductions which are needed to meet the PM2.5 and ozone ambient air quality standards in the South Coast Air Basin. The emission reductions expected through the deployment of zero or low emission engines or retrofit technologies under this Program must be real, surplus and quantifiable. Senate Bill 513 (Beall) removed many of the limitations associated with co-funding from other sources. The air district must verify the sum of all other incentive funds and the Moyer funds will not exceed the total project cost. Applicants from non-public entities must provide at least 15 percent of the Moyer eligible costs from non-public sources.

Replacement and repower projects are **limited to only** those involving a diesel baseline engine subject to the in-use off-road regulation, and a lower emission or zero emission technology that is certified, verified or approved by CARB. **All projects must meet the program's cost-effectiveness limits and be operational no later than May 21, 2021.** No administrative or vehicle operational costs are eligible.

It is expected that multiple awards will be granted under this PA, subject to the approval of the SCAQMD Governing Board.

All proposals will be evaluated based on criteria set forth in this PA. The SCAQMD will evaluate and/or verify information submitted by the applicant. At SCAQMD's discretion, consultants contracted by SCAQMD may conduct all or part of such evaluation and/or verification. Data verification during the evaluation and contracting process may cause initial cost-effectiveness rankings, and associated awards, to change. Furthermore, the SCAQMD reserves the right to make adjustments to awards based on the subsequent verification of information as well as changes in cost-effectiveness.

IMPORTANT PROGRAM INFORMATION

- Fleets with a total statewide equipment horsepower over 20,000 hp and with 40 percent or more of their vehicles at Tier 0 and Tier 1 emission levels as of January 1, 2008, are subject to the SOON Program and are required to apply for funding. Fleets not meeting both of the above criteria on January 1, 2008, may voluntarily participate in this Program and apply for funding.
- For this program cycle, all projects will be eligible for a maximum seven-year operational requirement within the jurisdiction of the South Coast Air Quality Management District. A shorter project life will be considered on a case-by-case basis and may be required by the CMP Guidelines for specific types of equipment. However, a shorter project life may affect the project's ranking relative to other projects and the amount of funding that can be provided.
- The annual hours used to calculate cost-effectiveness will be included in the contract. An extension of the contract or partial payback of funds may be required if the proposed annual hours are not achieved.
- For all repower projects, fleets are **not** required to but may install the highest level verified diesel emission control system (VDECS) at their own cost.
- Retrofit projects which can achieve NOx reductions may be funded on a case-by-case basis.
- Replacement, repower or NOx retrofit projects funded under SOON are ineligible for compliance with the base rule until the end of the contract period and the original engines must be retained in the Diesel Off-Road Online Reporting System (DOORS) equipment list until then.
- Applicants **must** provide vendor quotes with their application to document the cost of implementing the proposed technology. **All quotes must have been obtained within 90 days of application submittal. Applicants may be required to submit quotes from more than one technology provider.**
- Applicants must demonstrate that they are in full compliance with all CARB applicable regulations and that vehicle/equipment funding requests under this Program provide surplus emissions reductions. **Applicants are required to submit a compliance plan showing how they will comply with the targets of CARB's In-Use Off-Road Vehicle regulation throughout the contract term, as well as how the new projects under this PA will meet SOON NOx targets in 2020 and 2023.**
- Applicants must ensure that the vehicle/equipment to be purchased or installed is in compliance with all applicable federal, state and local air quality rules and regulations and that it will maintain compliance for the full contract term.
- Any associated tax obligation with the award is the responsibility of the grantee.
- No third-party contracts will be executed. The SCAQMD contract must be signed by the equipment owner.
- Pre- and post-inspection of all vehicles/engines/equipment approved for funding will be conducted by SCAQMD.
- Destruction of the engine/equipment being repowered or replaced is required.
- To avoid double dipping, applicants shall not apply for funding of the same equipment in any other air district.

POTENTIAL PROJECTS

All eligible projects must use certified technology or technology that has been verified by CARB for real and quantifiable emission reductions that go beyond any regulatory requirement. The following projects are eligible for SOON funding:

Repower Project

For a repower project, the new engine must be certified for sale in California to the current NOx emission standard (Tier 4 Final). If an engine meeting the current emission standard is not available or cannot be installed:

- A Tier 3 Replacement Engine rated at 175 hp or higher can be used for the repower project.
- A Tier 3 Replacement rated at 175 horsepower or less can be used for repower projects provided it complies with U.S. Environmental Protection Agency (EPA) requirements related to replacing in-use engines contained in the Code of Federal Regulations, Title 40, Section 1068.240.
- For off-road equipment with similar modes of operation to on-road vehicles, other possible options include the replacement of an older diesel off-road engine with a new on-road engine certified to an emission standard equal to or cleaner than the Tier 4 Final off-road emission standard or a newer emission certified alternative fuel engine.

Retrofit Project

For a retrofit project, the retrofit technology **must provide a NOx benefit** and must be:

- Verified by CARB to reduce NOx or NOx plus PM for the specific engine for which funding is requested.
- In compliance with established durability and warranty requirements and cost-effectiveness criteria.

Diesel Particulate Filters (DPFs) and other devices that are not verified to reduce NOx are not eligible for SOON funding. The applicant will find more information on VDECS, including a list of currently verified DECS at <http://www.arb.ca.gov/diesel/verdev/verdev.htm>.

Replacement Project

For replacement projects, the replacement vehicle/equipment must be powered by a Tier 4 Final engine. If a vehicle/equipment with a Tier 4 Final engine will not be available within 6 months of the application submittal, vehicle/equipment with an Interim Tier 4 or Tier 3 engine may be purchased.

PROJECT CRITERIA

The SCAQMD retains the authority to impose more stringent additional requirements in order to address local concerns.

- Off-road CI equipment eligible for SOON Program funding includes equipment 25 hp (19 kilowatt) or greater. The complete definition can be found in CARB's In-Use Off-Road Diesel regulation at <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>.
- SOON Program grants can be no greater than a project's incremental cost (85% of quotation for repower projects, 80% of quotation for replacement projects). The incremental cost shall be reduced by the value of any current financial incentive that

reduces the project price, including but not limited to tax credits or deductions, grants or other public financial assistance.

- Applicants must ensure that the vehicle/equipment to be purchased or installed is in compliance with all applicable federal, state and local air quality rules and regulations and that it will maintain compliance for the full contract term.
- The certification emission standard and Tier designation for the engine must be determined from the CARB's Executive Order issued for that engine, not by the engine model year. Executive orders for off-road engines may be found at <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>.
- Reduced emission engines or retrofits must be certified/verified for sale in California and must comply with durability and warranty requirements. These may include new CARB-certified engines and verified diesel emission control strategies.
- New vehicles equipped with Tier 4 family emission limits (FEL) engines certified to Tier 3 or Interim Tier 4 standards are eligible for SOON Program funding. **However, those engines will have their cost-effectiveness calculated as though they were Tier 3 engines.**
- New engines manufactured under the "Flexibility Provisions for Equipment Manufacturers", as detailed in Title 13, CCR, section 2423(d), are ineligible for SOON Program funding to repower equipment.
- For replacement projects, existing equipment with engines manufactured under the flexibility provision, detailed in CCR, title 13, section 2423 (d), the baseline emission rates shall be determined by using the previous applicable Tier emission standard for the existing engine model year and horsepower rating.
- Class 7 diesel forklifts are the only diesel forklifts eligible for SOON Program funding and are subject to all off-road project criteria. The SCAQMD must obtain and verify documentation of the classification of the forklift prior to funding.
- If repower with an engine meeting the current applicable standard is technically infeasible, unsafe or cost prohibitive, the replacement engine must meet the most current practicable previously applicable emission standard and cost-effectiveness criteria and, if rated at less than 175 hp, must comply with the requirements related to replacing in-use engines contained in Title 40, Code of Federal Regulations, Section 1068.240.
- Replacement of an uncontrolled diesel off-road engine with a new on-road engine certified to an emission standard equal to or lower than the Tier 4 Final off-road emission standard or a newer emission-certified alternative fuel engine may be eligible for funding as off-road equipment with similar modes of operation as on-road vehicles on a case-by-case basis. Other equipment may be eligible for funding on a case-by-case basis. These repowers must meet all other applicable project criteria.
- Applicants must provide their DOORS Fleet Compliance Snapshot.
- Applicants must provide the DOORS EIN for each vehicle for which funding is requested.
- Applicants must provide proof they have owned each vehicle for which funding is requested for a replacement vehicle for at least two years.

- Applicants must provide a current Compliance Plan using the SCAQMD fleet calculator or the DOORS calculator demonstrating compliance with the Off-Road regulation throughout the anticipated contract period.
- Applicants must provide at least the most recent two (2) years of hour-meter readings.

Potential projects that fall outside of these criteria may be considered on a case-by-case basis if evidence provided to the air district suggests potential surplus, real, quantifiable and enforceable emission reduction benefits.

MAXIMUM ELIGIBLE FUNDING

The maximum eligible funding amount and project life for each SOON project type is summarized below.

Project	Maximum Funding	Maximum Project Life
Replacement	80% of vehicle/equipment cost	Five years, except: <ul style="list-style-type: none"> • Three years for excavators, skid steer loaders, and rough terrain forklifts
Repower	85% of engine cost plus parts and labor necessary for installation	Seven years
Retrofit	100% of retrofit device cost plus parts and labor for installation, plus estimated cost for maintenance during project life.	Five years

COST-EFFECTIVENESS EVALUATION DISCUSSION

The SOON Program is required to meet the requirements of the CMP by using the cost-effectiveness calculation methodology found in Appendix C of the CMP Guidelines (see <http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>).

REPORTING AND MONITORING

All participants in the SOON Program are required to keep appropriate records during the full contract period. Project life is the number of years used to determine the cost-effectiveness and is equivalent to the contract implementation period. All equipment must operate in the SCAQMD for the full project life. The SCAQMD shall conduct periodic reviews of each project's operating records to ensure that the engine is operated as stated in the program application. Annual records must contain the following, at a minimum:

- Total Hours of Operation
- Total Hours of Operation in the South Coast Air District
- Annual Maintenance and Repair Information

Records must be retained and updated throughout the project life and made available for SCAQMD inspection. The SCAQMD may conduct periodic reviews of each vehicle/equipment project's operating records to ensure that the vehicle is operated as required by the project requirements.

Equipment owner, if awarded CMP grant funds, will be required to submit annual reports for the life of the project, as described in Section II – Work Statement/Schedule of Deliverables.

PROGRAM ADMINISTRATION

The SOON Program will be administered locally by the SCAQMD through the Science and Technology Advancement Office.

FUNDING CATEGORIES

Only equipment identified in the CARB In-Use Off-Road Diesel Vehicle regulation is eligible for this Program.

PROJECT EVALUATION/AWARDS

SCAQMD staff will evaluate all submitted proposals and make recommendations to the SCAQMD Governing Board for final selection of project(s) to be funded. Proposals will be evaluated for cost-effectiveness of emissions reduced on an equipment-by-equipment basis, as well as a project's disproportional impact evaluation. (This is discussed further in Section IV).

SCHEDULE OF EVENTS

Release of #PA2019-01	March 1, 2019
Workshop – 10AM to 1PM* Coachella Valley Mosquito and Vector Control District Board Room 43420 Trader Place Indio, CA 92201	Wednesday, April 17, 2019 (Carl Moyer and SOON Program will be discussed at the workshop with an emphasis on agricultural projects)
3 Workshops – 9AM to Noon* SCAQMD Headquarters Conference Room CC-6 21865 Copley Drive Diamond Bar, CA 91765	Wednesday, April 24, 2019 Thursday, May 2, 2019 Wednesday, May 8, 2019
All Applications Due	No later than 1PM, Tuesday, June 4, 2019
Anticipated Award Consideration by SCAQMD Board	October 4, 2019

*Training for the online application system will be included in these workshops.

**ALL PROPOSALS MUST BE RECEIVED ELECTRONICALLY OR ON PAPER AT THE
SCAQMD HEADQUARTERS
NO LATER THAN 1:00 P.M. ON TUESDAY, JUNE 4, 2019**

Electronic submission using SCAQMD's new CMP Online Application Program (OAP) is preferred and is available at www.aqmd.gov/moyer.

Postmarks of paper copy applications will not be accepted. Faxed or email proposals will not be accepted. Proposers may hand-deliver proposals to the SCAQMD by submitting the proposal to the SCAQMD Public Information Center. The proposal will be date and time-stamped and the person delivering the proposal will be given a receipt.

SCAQMD may issue subsequent solicitations if insufficient applications are received in the initial solicitation.

STATEMENT OF COMPLIANCE

Government Code Section 12990 and California Administrative Code, Title II, Division 4, Chapter 5, require employers to agree not to unlawfully discriminate against any employee or applicant because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, or age. A statement of compliance with this clause is included in all SCAQMD contracts.

SECTION II: WORK STATEMENT/SCHEDULE OF DELIVERABLES

All applicants that are selected for funding awards must complete the Work Statement and Schedule of Deliverables described below as part of the contracting process. Development of these materials for the initial application is NOT required; however, applicants must sign the application form indicating their understanding of the requirements for submittal of additional project information to finalize a contract and that all vehicles, engines or equipment must be in operation no later than **May 21, 2021**.

WORK STATEMENT

The scope of work involves a series of tasks and deliverables that demonstrate compliance with the requirements of the SOON Program as administered by CARB and the SCAQMD. The project applicant is responsible for developing detailed project plans that address the program criteria. In addition, alternative fuel project applicants must discuss their plan for refueling the proposed vehicles/equipment, and if appropriate, should provide a letter of agreement from their fuel provider.

At a minimum, any proposed project must meet the following criteria:

- Emission reductions must be real, quantifiable, enforceable and surplus in accordance with CARB and SCAQMD guidelines.
- Cost-effectiveness of the project must meet the minimum requirement of the CMP guidelines.
- Project engines or equipment must operate in-service for the full project life.

- All vehicles/engines/equipment must be in operation no later than May 21, 2021.
- Appropriate annual usage records must be kept and reported to SCAQMD during the project life (i.e., annual hours of operation).
- A compliance plan that demonstrates compliance with the off-road regulation throughout the contract period must be provided.
- Ensure that the project complies with other local, state and federal programs, and resulting emission reductions from a specific project are not required as a mitigation measure to reduce adverse environmental impacts that are identified in an environmental document prepared in accordance with the California Environmental Quality Act or the National Environmental Policy Act.
- If requested, a contractor must provide a financial statement and bank reference, or other evidence of financial ability to fulfill contract requirements.

DELIVERABLES

The contract will describe how the project will be monitored and what type of information will be included in project progress reports. At a minimum, the SCAQMD expects to receive the following:

- An annual report, throughout the project life, which provides the annual hours of operation, where the vehicle(s) or equipment(s) was operated, annual fuel consumption, and operational and maintenance issues encountered and how they were resolved. SCAQMD reserves the right to verify the information provided.

SECTION III: PROPOSAL SUBMITTAL REQUIREMENTS

Proposers **must** complete the appropriate application forms committing that the information requested in Section II, Work Statement/Schedule of Deliverables, will be submitted if the Proposer's project is selected for funding.

In addition, Conflict of Interest and Project Cost information, as described below, must also be submitted with the application. It is the responsibility of the proposer to ensure that all information submitted is accurate and complete.

CONFLICT OF INTEREST

Applicant must address any potential conflicts of interest with other clients affected by actions performed by the firm on behalf of the SCAQMD. Although the proposer will not be automatically disqualified by reason of work performed for such firms, the SCAQMD reserves the right to consider the nature and extent of such work in evaluating the proposal. Conflicts of interest will be screened on a case-by-case basis by the SCAQMD District Counsel's Office. Conflict of interest provisions of the state law, including the Political Reform Act, may apply to work performed pursuant to this contract. Please discuss potential conflicts of interest on the application form entitled "Campaign Contributions Disclosure".

PROJECT COST

Applicants must provide cost information that specifies the amount of funding requested and the basis for that request by attaching vendor quotes to the application. Applicants need to inform vendors of the time frame of the award process so that they can accurately quote costs based on the anticipated order/purchase date. **Note that no purchase orders may be placed or work performed for projects awarded under this PA until after the date of award approval by the SCAQMD Governing Board. Any orders placed or payments made in advance of an executed contract with the SCAQMD are done at the risk of the applicant. The SCAQMD has no obligation to fund the project until a contract is fully executed by both parties.**

The SOON Program funds only the differential cost between existing technology and zero or low emission technology. The proposed zero or low emission technology must be CARB-certified in most cases.¹ Proposals will be ranked by cost-effectiveness on a vehicle/equipment-by-vehicle/equipment basis. The cost-effectiveness limit has been established at \$30,000/ton of emissions reduced and \$100,000/ton of emissions reduced for advanced technology that includes zero-emission or alternatively, meets the cleanest optional standard certified. The cost-effectiveness level used for the selection of projects may be lower depending on the demand for program funds. No fueling infrastructure, administrative or operational costs will be funded.

All project costs must be clearly indicated in the application. In addition, applicants must include any sources of co-funding and the amount of each co-funding source in the application. **Applicants are cautioned that the project life period used in calculating emissions reductions will be used to determine the length of their data reporting obligation and the length of their contract. In other words, a project applicant using a seven year life for the emissions reduction calculations will be required to operate and track activity for the project vehicle for the full seven years.** A seven year life (shorter project life will be considered on a case-by-case basis and may be required for replacement projects) will be used for all projects subject to #PA2019-01.

PROPOSAL SUBMISSION

All proposals must be submitted according to specifications set forth herein.

Application Forms

Program application forms are provided after this document. These must be completed and submitted with other required documents (i.e., Certifications and Representations and vendor quotations) discussed in the application and below.

Certifications and Representations

Contained in this PA are six business forms which must also be completed and submitted with the application.

¹ Note that non-CARB certified engines/devices requiring an experimental permit from CARB may be considered, but the project will require special CARB approval.

Compliance Plan

Projects funded by SOON monies must result in emission reductions that are surplus to those that would be realized by fleets complying with the base rule. Fleets are required to submit a compliance plan in electronic format to demonstrate how they comply with both the base rule as well as the SOON provision of the rule. Fleet owners, at a minimum, must provide the following information for each year, 2010 through 2023 inclusive:

- A vehicle list which includes, but is not limited to, vehicle type, manufacturer, model, model year, and whether the equipment is included in the base or SOON fleet for each piece of equipment in the fleet.
- Information including, but not limited to, calculations, fleet information, etc., showing compliance with the base rule fleet target levels or compliance with the BACT turnover and retrofit requirements. Either the CARB calculator (individual tabs for each future year) or the Excel SOON fleet calculator spreadsheet may be used.
- Information including, but not limited to, calculations, fleet information, etc., showing whether the vehicles funded by the SOON program are in compliance with the SOON NOx fleet average target levels.

SOON Compliance Plan documents and the Microsoft Excel SOON fleet calculator can be downloaded at the SCAQMD SOON website: www.aqmd.gov/soon. CARB's Fleet Average Calculators can be downloaded at the CARB website: <https://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>.

Methods of Delivery:

The proposer is encouraged to submit the application using the SCAQMD online system, available at www.aqmd.gov/moyer. This online system allows applicants to submit their application electronically to the SCAQMD prior to the date and time specified below. SCAQMD "Business Information Forms" requiring signatures must be scanned and uploaded to the online system in pdf format. First-time users must register as a new user. A tutorial of the system will be provided at the pre-application workshops and you may contact Walter Shen at wshen@aqmd.gov or (909) 396-2487 if you would like additional assistance.

An applicant may also deliver paper copies of the application in person, via a courier service or U.S. Mail. Application shall submit **the original application and three (3) complete paper copies of the application, and an electronic copy (CD or flash drive) of the compliance plan and completed application** in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the proposer and the words "**Program Announcement #PA2019-01**". Paper applications shall be submitted in an eco-friendly format: stapled, not bound, black and white print; no three-ring, spiral or plastic binders, and no card stock or colored paper.

Due Date

All proposals submitted by paper or through the online application system must be received no later than **1:00 p.m., on Tuesday, June 4, 2019**. Postmarks for paper copies are not accepted as proof of deadline compliance. **Faxed or emailed proposals will not be accepted.** Paper proposals must be directed to:

Procurement Unit
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Any correction or resubmission done by the proposer will not extend the submittal due date.

Grounds for Rejection

A proposal may be immediately rejected if:

1. It is not prepared in the format described.
2. It is not signed by an individual authorized to represent the firm.
3. Does not include current cost quotes, Contractor Statement Forms, and other forms required in this PA.

Disposition of Proposals

The SCAQMD reserves the right to reject any or all proposals. All responses become the property of the SCAQMD. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.

Modification or Withdrawal

Once submitted, proposals cannot be altered without the prior written consent of SCAQMD.

SECTION IV: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

SCAQMD staff will evaluate all submitted proposals and make recommendations to the SCAQMD Governing Board for final selection of project(s) to be funded. Proposals will be evaluated based on the cost-effectiveness of emissions reduced on a vehicle/equipment-by-vehicle/equipment basis. Be aware that there is a possibility that due to program priorities, cost-effectiveness and/or funding limitations, a project may be offered only partial funding, and not all proposals that meet the minimum cost-effectiveness criteria may be funded.

Funding will be awarded based on the cost-effectiveness of each piece of equipment. In addition, at least 50 percent of the CMP funds are targeted to be allocated to projects that are domiciled within a Disadvantaged Communities (DAC). SCAQMD uses the following method to meet these requirements.

1. All projects must qualify for the CMP by meeting the cost-effectiveness limit of \$30,000 per ton of emissions reduced and \$100,000/ton of emissions reduced for advanced technology that are zero-emission or alternatively, meet the cleanest optional standard certified.
2. The Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency (CalEPA) has developed the California Communities Environmental Health Screening Tool: CalEnviroScreen Version 3.0 (CalEnviroScreen 3.0). The CalEnviroScreen 3.0 tool will be used by SCAQMD to identify DACs, defined as scoring in the top 25th percentile, and maximize the benefits to these communities from this PA. All applications will be assessed with the CalEnviroScreen tool to identify and verify how their projects benefit DACs. This tool is available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>
3. All the proposals not awarded under the 50 percent allocated to projects domiciled within DACs will then be ranked according to cost-effectiveness, with the most cost-

effective project funded first and then in descending order for each funding category until the remainder of the CMP funds are exhausted.

SECTION V: PAYMENT TERMS

For all projects, payment will be made upon installation and commencement of operation of the funded equipment for 85% of the submitted repower invoice (80% of the submitted replacement invoice) or the contract maximum amount, whichever is less.

CONTACT FOR ADDITIONAL INFORMATION

Questions regarding the content or intent of this PA, procedural matters, sample contract, and the compliance plan worksheet can be found at the SCAQMD SOON website (<http://www.aqmd.gov/SOON>), or can be addressed to:

Walter Shen
Science and Technology Advancement
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
Phone: (909) 396-2487/Fax: (909) 396-3252
wshen@aqmd.gov

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Application Forms



Carl Moyer and SOON Application
Form A-1
General Application Form (page 1 of 3)

The SCAQMD is accepting applications for projects throughout its jurisdiction. All applications will be evaluated based on their cost-effectiveness and their disproportionate impact score as discussed in Section IV "Application Evaluation/ Contractor Selection Criteria" contained in Program Announcement. For additional information about SCAQMD's policies and application information, visit: www.aqmd.gov/moyer. In general, this program will follow CARB Carl Moyer Program guidelines, which are available at: <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

The submittal of an application does not guarantee approval for funding, but will be used to determine the potential emission reductions and eligible grant funding amount for the proposed project. Any equipment purchased prior to project approval by the SCAQMD Governing Board will not be eligible for funding. Applicant may, at their own risk, issue a purchase order for approved equipment prior to contract execution. Other than a purchase order, **no other work shall proceed** until a fully executed contract, i.e. signed by the applicant and SCAQMD Board Chairman and a pre-inspection, is completed.

Organization Information

Legal Name of Organization *

The legal organization name must be that of the legal equipment owner.

Organization Address

Mailing Address *

Street Address/P.O. Box

City *

State *

Zip *

County *

Primary Contact Name and Information

First Name

Last Name

Email Address
(A valid Email address is required. Eg. john@gmail.com)

Phone Number

Fax Number

Person Authorized to Sign Application and Execute Grant Agreement

First Name

Last Name

Email Address
(A valid Email address is required. Eg. john@gmail.com)

Phone Number

Fax Number

Third Party Information

Name of Person Who Completed the Application

What is Your Position?

How much are you being paid to complete this application for the owner or to assist in the proposed project?

What is the source of funds being used to pay you?

Signature of Third Party Person Who Completed the Application:

Date:



Carl Moyer and SOON Application Form A-1 General Application Form (page 2 of 3)

All information provided in this application will be used by SCAQMD staff to evaluate the eligibility of this application to receive program funds. SCAQMD staff reserves the right to request additional information and can deny the application if such requested information is not provided by the requested deadline. Incomplete or illegible applications will be returned to applicant or vendor, without evaluation. An incomplete application is an application that is missing information critical to the evaluation of the project.

Please read and check each item below to indicate understanding and agreement:

I understand that this application is for evaluation purposes only and does not guarantee project funding. Only a fully executed Grant Agreement between the equipment owner and the District constitutes an obligation to fund a project. ☐

I certify to the best of my knowledge and under penalty of perjury that the information contained in this application is true and accurate. ☐

I understand that all vehicles/equipment, both existing and new, must be made available within the SCAQMD boundaries for inspection, unless otherwise approved by SCAQMD's Project Officer. ☐

The vehicle/engine will be used within the SCAQMD boundaries (with the emission reduction system operating) for at least the projected usage shown in this application, and no less than 75 percent of the time. ☐

I understand that it is my responsibility to ensure that all technologies are either verified or certified by the California Air Resources Board (CARB) to reduce NOx and/or PM pollutants. CARB Verification Letters and/or Executive Orders are attached, as applicable. ☐

I understand that for repower projects, I am required to install the highest level available verified diesel emission control device (VDECS), and that the costs of this device and associated installation are a CMP eligible expense. These costs may be included in the project grant request up to the maximum cost-effectiveness limit. ☐

I understand that there may be conditions placed upon receiving a grant and agree to refund the grant (or pro-rated portion thereof) if it is found that at any time I do not meet those conditions and if directed by the SCAQMD in accordance with the contract agreement. ☐

I understand that, for this equipment, I am required to disclose if I have applied for or received incentive funding from another entity or program. Failure to do so will disqualify me from Carl Moyer Program Funding. ☐

In the event that the vehicle(s)/equipment do not complete the minimum term of any agreement eventually reached from this application, I agree to ensure the equivalent project emissions reductions, or to return grant funds to the SCAQMD as required by the contract. ☐

I understand that all on-road engines in my fleet that are eligible for a low-NOx software upgrade (reflash) must be reflashed within 60 days of receipt of contract execution. I may self-certify that the reflash has been performed by submitting a receipt of the completed reflash or a picture of the "Low NOx Reflash Label" from the reflashed engine to SCAQMD. ☐

I understand that third party contracts are not permitted. A third party may, however complete an application on an owner's behalf. Third parties are required to list how much compensation, if any, they are receiving to prepare the application(s), and to certify that no Carl Moyer Program funds are being used for this compensation. ☐

I understand that off-road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation (Off-Road Regulation) must submit information regarding fleet size and compliance status. This must include the Diesel Off-Road On-line Reporting System (DOORS) ID of the fleet and the DOORS Equipment Identification Number (EIN) of the funded equipment. ☐

I understand that additional project information may be requested during project review and must be submitted prior to final evaluation. ☐

I understand that all vehicles, engines or equipment funded by this program must be operational within eighteen (18) months of contract execution, or by the vehicle in service date as specified in the Statement of Work, whichever is earlier. ☐

All project applicants must submit documentation that supports the activity claimed in the application (i.e., fuel receipts, mileage logs and/or hour-meter readings covering the last two years). This documentation is attached. ☐

The grant contract language cannot be modified without the written consent of all parties. I have reviewed and accept the sample contract language. ☐

I understand that an IRS Form 1099 may be issued to me for incentive funds received under the Moyer Program. I understand that it is my ☐



Carl Moyer and SOON Application
Form A-1
General Application Form (page 3 of 3)

responsibility to determine the tax liability associated with participating in the Moyer Program.

I understand that an SCAQMD-funded Global Positioning System (GPS) unit will be installed on vehicles/equipment not operating within SCAQMD boundaries full time. I will submit data as requested and otherwise cooperate with all data reporting requirements. I also understand that the additional cost of the GPS unit will be added to the project cost when calculating cost-effectiveness, though the SCAQMD will pay for this system directly.

☐

I understand that the SCAQMD has the right to conduct unannounced inspections for the full project life to ensure the project equipment is fully operational at the activity level committed to by the contract.

☐

I understand that all emission reductions resulting from Carl Moyer funded projects will be retired and the Carl Moyer Program claims all emission reductions from its funded projects. I also understand that there is no double counting or splitting of emission reductions if I receive additional incentive funding.

☐

I understand that a tamper proof, non-resettable digital hour meter/odometer must be installed on all vehicles/equipment and that the digital hour meter/odometer will record the hours/miles accumulated within the SCAQMD boundaries. This cost is my responsibility.

☐

I understand that any tax credits claimed must be deducted from the CMP request.

☐

Please check one:

☐ I do not plan to claim a tax credit or deduction for costs funded by the CMP.

☐ I do plan to claim a tax credit or deduction for costs funded by the CMP.

If so please indicate amount here: \$

☐ I plan to claim a tax credit or deduction only for the portion of incremental costs not funded by the CMP.

If so please indicate amount here: \$

I have checked this box to indicate that there are no potential conflicts of interest with other clients affected by actions performed by the firm on behalf of SCAQMD. If I have not checked this box, I have attached a description to this application of the potential conflict of interest, which will be screened on a case-by-case basis by the SCAQMD District Counsel's Office.

☐

I understand and certify that I am currently in compliance with all federal, state and local air quality rules and regulations at the time of application submittal, and I am not aware of any outstanding or pending enforcement actions.



Please indicate the Total Funding Requested (for the entire project, including all equipment/vehicle replacements, repowers, etc.): \$

By signing below, I certify under penalty of perjury that the information provided in this application is accurate and true.

Please print the name of the signing authority (first and last name)

Signature of signing authority:

Please enter the application submission date:

APPLICATION CHECKLIST

Applicants are encouraged to submit their application using SCAQMD's online system. If you are applying in person, use this checklist to organize your paper copy application. Each of the following application sections is required to be submitted if you submit a paper application:

- ☐ A cover letter stating your grant request, how many pieces of equipment and/or engines included in the proposed project, and the funding amount being requested (per engine and for the total project). For applications covering more than one category, organize this information into project category (i.e., marine, locomotive, on-road, etc.)
- ☐ This Application Checklist (signed below).
- ☐ General Application Form A-1. Provide a separate Form A-1 for each category (i.e., marine, locomotive, etc.) for which grant funding is requested. Form A-1 also includes the following documents:
 - ☐ Application Statement (signed and initialed as applicable)
 - ☐ Completed and **signed** Business Information Forms¹
- ☐ Category Application Form specific to your project category (i.e., locomotive, off-road, marine, etc.), along with the following attachments/enclosures:
 - ☐ Optional Excel Worksheet associated with applicable application form/category (you may use this form for multiple unit projects, if desired)
 - ☐ Vendor quotes dated no earlier than 90 days prior to the date of application submittal
 - ☐ CARB Executive Orders for each engine. Download at:
 - On-road: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>
 - Off-road: <http://www.arb.ca.gov/diesel/cv.htm>
 - ☐ Previous two years of historical records documenting equipment usage, retroactive to the date of application.

Once completed, please submit one original plus three (3) complete signed copies of the application package (all forms and documents), as well as an electronic copy of the application and its supporting documents on a CD or flash drive.

I understand that all documents, as listed above, are required in order to have a complete application package in order to be considered for funding under the Carl Moyer Program.

Signature

Date

¹ These forms may be downloaded at: www.aqmd.gov/moyer



Carl Moyer and SOON Application Form C-1 Off-Road Equipment Replacement Equipment Information (page 1 of 2)

If you have any questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at wshen@aqmd.gov.

Large Off-Road Fleets have limited eligibility for Carl Moyer Program funding, but may apply for SOON Program funding using this application. For more information, please visit www.aqmd.gov/SOON.

Please complete ONE (1) Form for each piece of equipment.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past? ☐ Yes ☐ No

For Large Fleets Only - have you received Carl Moyer funding after January 1, 2017? ☐ Yes ☐ No

What is the primary function of this equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address, provide intersection) City

County State

Zip Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make Equipment Model

Equipment Model Year Equipment Serial Number or VIN

Unit Number or EIN# (for non-Ag Operations)

Is 2 to 1 Replacement Applied? ☐ Yes ☐ No

Number of Main Engines Number of Auxiliary Engines

Is this equipment used in Agricultural operations? ☐ Yes ☐ No

What percentage of equipment operations are in Agriculture?



Carl Moyer and SOON Application Form C-1

Off-Road Equipment Replacement Equipment Information (page 2 of 2)

New Equipment and Vendor Information

Unit Number	<input type="text"/>	Equipment Category	<input type="text"/>
Equipment Type	<input type="text"/>		
If other equipment type, please describe <input type="text"/>			
Equipment Make	<input type="text"/>	Equipment Model	<input type="text"/>
Equipment Model Year	<input type="text"/>		
Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Phone Number	<input type="text"/>	Vendor Address	<input type="text"/>
Vendor City	<input type="text"/>	State	<input type="text"/>
Vendor Zip	<input type="text"/>		

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Number of engines for this New Equipment Unit:

Main (Front) Engine(s)	<input type="text"/>	Auxiliary (Rear) Engine(s)	<input type="text"/>
New Replacement Unit Cost \$	<input type="text"/>	Tax \$	<input type="text"/>
Total Cost for this Replacement \$	<input type="text"/>	Applicant Co-Funding Amount (If Any) \$	<input type="text"/>
Applicant Grant Request (If Any) \$	<input type="text"/>		



Carl Moyer and SOON Application

Form C-1

Off-Road Equipment Replacement

Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested (for this Replacement ONLY)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

Note: See <http://www.aqmd.gov/home/about/jurisdiction> for a jurisdiction map.

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application

Form C-1

Off-Road Equipment Replacement

Engine Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary		
Baseline Engine Fuel Type	<input type="text"/>		
Baseline Engine Make	<input type="text"/>	Baseline Engine Model	<input type="text"/>
Baseline Engine Model Year	<input type="text"/>	Baseline Engine Serial Number	<input type="text"/>
Baseline Engine Horsepower	<input type="text"/>	Baseline Engine Family Number	<input type="text"/>
Old Engine (Baseline) Emissions Tier	<input type="text"/>		

New Engine Information

New Engine Fuel Type	<input type="text"/>		
New Engine Make	<input type="text"/>	New Engine Model	<input type="text"/>
New Engine Model Year	<input type="text"/>	New Engine Serial Number	<input type="text"/>
New Engine Horsepower	<input type="text"/>	New Engine Family Number	<input type="text"/>
New Engine (Reduced) Emissions Tier	<input type="text"/>		



Carl Moyer and SOON Application
Form C-1
Off-Road Equipment Replacement
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for the past 24-months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application
Form C-1
Off-Road Equipment Replacement
Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24 – months including, but not limited to, maintenance records, hour meter readings)
- Photo showing the baseline engine (old) engine model year, engine serial #, HP, engine family # (if available)
- Equipment Ownership (Bill of Sale)
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>)
- only for applicants applying for SOON funding (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot including vehicle list
- Business Information Request Form
- Campaign Contribution Disclosure
- Business Status Cert
- W-9 Form
- Direct Deposit Form
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer and SOON Application

Form C-2

Off-Road Equipment Repower Equipment Information

If you have any questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at: wshen@aqmd.gov

Large Off-Road Fleets have limited eligibility for Carl Moyer Program funding, but may apply for SOON Program funding using this application. For more information, please visit www.aqmd.gov/SOON.

Please complete ONE (1) form for each piece of equipment.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past?

☐ Yes ☐ No

For Large Fleets Only - have you received Carl Moyer funding after January 1, 2017?

☐ Yes ☐ No

What is the primary
function of this
equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below.

☐ Yes ☐ No

Street Address (if no address,
provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make

Equipment Model

Equipment Model Year

Equipment Serial
Number or VIN

Unit Number or EIN# (for non-
Ag Operations)

Number of Main
Engines

Number of Auxiliary
Engines

Is this equipment
used in Agricultural operations?

☐ Yes ☐ No



Carl Moyer and SOON Application Form C-2 Off-Road Equipment Repower Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested (including Retrofit cost, if applicable)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE - incl. Retrofit if applicable)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application Form C-2 Off-Road Equipment Repower Engine Information (page 1 of 2)

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type ☐ Main ☐ Auxiliary

Baseline Engine Fuel Type

Baseline Engine Make

Baseline Engine Model

Baseline Engine Model Year

Baseline Engine Serial Number

Baseline Engine Horsepower

Baseline Engine Family Number

Old Engine (Baseline) Emissions Tier

Method proposed for rendering the baseline engine(s) inoperable

New Engine Information

New Engine Fuel Type

New Engine Make

New Engine Model

New Engine Model Year

New Engine Serial Number

New Engine Horsepower

New Engine Family Number

New Engine (Reduced) Emissions Tier

Is the New Engine a Family Emissions Limit (FEL) engine? ☐ Yes ☐ No

New Engine Cost Information

New Engine Unit Cost

Cost of Installation/Labor

Cost of New Engine Tax

Total Cost of Repower

Applicant Co-Funding Amount (if any)

Grant Request Amount for this Repower

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

New Engine Vendor Information

Vendor

Vendor Contact Name

Vendor Phone Number

Vendor Address

Vendor City

Vendor State

Vendor Zip



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Engine Information (page 2 of 2)

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Engine Retrofit Information

Will a retrofit device be added to this engine as part of this project?

☒ Yes ☐ No

Retrofit Device Make

Retrofit Device Model

% PM Reduction

% NOX Reduction

% ROG Reduction

Retrofit Device ARB Executive
Order Number

Project Life

Retrofit Cost Information

Retrofit Device System Cost

Retrofit Device Installation
Cost

Total Cost of Retrofit

Amount requested for this
retrofit \$



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for the past 24-months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Attachment

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 day of application submittal)
- Equipment Usage Documentation (for past 24 – months including, but not limited to, maintenance records, hour meter readings)
- Photo showing the baseline (old) engine model year, engine serial #, horsepower, engine family # (if available)
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>)
- only for applicants applying for SOON funding (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot - including vehicle list
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Certification
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer and SOON Application Form C-3 Off-Road Equipment Retrofit Equipment Information

If you have questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at: wshen@aqmd.gov.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past?

☐ Yes ☐ No

What is the primary
function of this
equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below.

☐ Yes ☐ No

Street Address (if no
address, provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make

Equipment Model

Equipment Model Year

Equipment Serial
Number or VIN

Unit Number

Number of Main
Engines

Number of Auxiliary
Engines

Is this equipment
used in Agricultural operations?

☐ Yes ☐ No



Carl Moyer and SOON Application Form C-3 Off-Road Equipment Retrofit Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

See <http://www.aqmd.gov/home/about/jurisdiction> for a jurisdiction map.

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application
Form C-3
Off-Road Equipment Retrofit
Engine & Retrofit Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary		
Baseline Engine Fuel Type	<input type="text"/>		
Baseline Engine Make	<input type="text"/>	Baseline Engine Model	<input type="text"/>
Baseline Engine Model Year	<input type="text"/>	Baseline Engine Serial Number	<input type="text"/>
Baseline Engine Horsepower	<input type="text"/>	Baseline Engine Family Number	<input type="text"/>
Old Engine (Baseline) Emissions Tier	<input type="text"/>		

Engine Retrofit Information

Retrofit Device Make	<input type="text"/>	Retrofit Device Model	<input type="text"/>
Verification Level	<input type="text"/>	Project Life	<input type="text"/>
Verified % PM Reduction	<input type="text"/>	Verified % NOX Reduction	<input type="text"/>
Verified % ROG Reduction	<input type="text"/>	Retrofit Device ARB Executive Order Number	<input type="text"/>
Retrofit Device Serial Number	<input type="text"/>		

Retrofit Cost Information

Retrofit Device System Cost	<input type="text"/>	Retrofit Device Installation Cost	<input type="text"/>
Tax Amount for Retrofit	<input type="text"/>	Total Cost of Retrofit	<input type="text"/>
Maintenance Cost	<input type="text"/>	Amount requested for this retrofit	<input type="text"/>
Retrofit Dealer Vendor	<input type="text"/>		

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application. The data-logging cost of a retrofit project cannot be included in the eligible project cost.



Carl Moyer and SOON Application
Form C-3
Off-Road Equipment Retrofit
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for past 24 months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application
Form C-3
Off-Road Equipment Retrofit
Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24 – months)
- Other misc. attachments
- DOORS Vehicle List
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>) (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Business Status Certification
- Direct Deposit Form
- Certification of Debarment, Suspension and Other Responsibility Matters



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Business Information Request

Dear SCAQMD Contractor/Supplier:

South Coast Air Quality Management District (SCAQMD) is committed to ensuring that our contractor/supplier records are current and accurate. If your firm is selected for award of a purchase order or contract, it is imperative that the information requested herein be supplied in a timely manner to facilitate payment of invoices. In order to process your payments, we need the enclosed information regarding your account. **Please review and complete the information identified on the following pages, remember to sign all documents for our files, and return them as soon as possible to the address below:**

**Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178**

If you do not return this information, we will not be able to establish you as a vendor. This will delay any payments and would still necessitate your submittal of the enclosed information to our Accounting department before payment could be initiated. Completion of this document and enclosed forms would ensure that your payments are processed timely and accurately.

If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain
Deputy Executive Officer
Finance

DH:tm

Enclosures: Business Information Request
Disadvantaged Business Certification
W-9
Form 590 Withholding Exemption Certificate
Federal Contract Debarment Certification
Campaign Contributions Disclosure
Direct Deposit Authorization



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> Other _____

REMITTING ADDRESS INFORMATION

Address			
City/Town			
State/Province		Zip	
Phone	() - Ext	Fax	() -
Contact		Title	
E-mail Address			
Payment Name if Different			

All invoices must reference the corresponding Purchase Order Number(s)/Contract Number(s) if applicable and mailed to:

**Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178**

BUSINESS STATUS CERTIFICATIONS

Federal guidance for utilization of disadvantaged business enterprises allows a vendor to be deemed a small business enterprise (SBE), minority business enterprise (MBE) or women business enterprise (WBE) if it meets the criteria below.

- is certified by the Small Business Administration or
- is certified by a state or federal agency or
- is an independent MBE(s) or WBE(s) business concern which is at least 51 percent owned and controlled by minority group member(s) who are citizens of the United States.

Statements of certification:

As a prime contractor to SCAQMD, (name of business) will engage in good faith efforts to achieve the fair share in accordance with 40 CFR Section 33.301, and will follow the six affirmative steps listed below **for contracts or purchase orders funded in whole or in part by federal grants and contracts.**

1. Place qualified SBEs, MBEs, and WBEs on solicitation lists.
2. Assure that SBEs, MBEs, and WBEs are solicited whenever possible.
3. When economically feasible, divide total requirements into small tasks or quantities to permit greater participation by SBEs, MBEs, and WBEs.
4. Establish delivery schedules, if possible, to encourage participation by SBEs, MBEs, and WBEs.
5. Use services of Small Business Administration, Minority Business Development Agency of the Department of Commerce, and/or any agency authorized as a clearinghouse for SBEs, MBEs, and WBEs.
6. If subcontracts are to be let, take the above affirmative steps.

Self-Certification Verification: Also for use in awarding additional points, as applicable, in accordance with SCAQMD Procurement Policy and Procedure:

Check all that apply:

- | | |
|---|--|
| <input type="checkbox"/> Small Business Enterprise/Small Business Joint Venture | <input type="checkbox"/> Women-owned Business Enterprise |
| <input type="checkbox"/> Local business | <input type="checkbox"/> Disabled Veteran-owned Business Enterprise/DVBE Joint Venture |
| <input type="checkbox"/> Minority-owned Business Enterprise | <input type="checkbox"/> Most Favored Customer Pricing Certification |

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____

State of California Public Works Contractor Registration No. _____ . MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.

I, the undersigned, hereby declare that to the best of my knowledge the above information is accurate. Upon penalty of perjury, I certify information submitted is factual.

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

Disabled Veteran-Owned Business Enterprise means a business that meets all of the following criteria:

- is a sole proprietorship or partnership of which is at least 51 percent owned by one or more disabled veterans, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
- the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- is a sole proprietorship, corporation, partnership, or joint venture with its primary headquarters office located in the United States and which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

Joint Venture means that one party to the joint venture is a DVBE and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that DVBE will receive at least 51 percent of the project dollars.

Local Business means a business that meets all of the following criteria:

- has an ongoing business within the boundary of SCAQMD at the time of bid application.
- performs 90 percent of the work within SCAQMD's jurisdiction.

Minority-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more minority persons or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minority persons.
- is a business whose management and daily business operations are controlled or owned by one or more minority person.
- is a business which is a sole proprietorship, corporation, partnership, joint venture, an association, or a cooperative with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

“Minority” person means a Black American, Hispanic American, Native American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian American (including a person whose origins are from India, Pakistan, or Bangladesh), Asian-Pacific American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, or Taiwan).

Small Business Enterprise means a business that meets the following criteria:

- a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
 - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or**
 - A manufacturer with 100 or fewer employees.
- b. Manufacturer means a business that is both of the following:
 - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
 - 2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

Small Business Joint Venture means that one party to the joint venture is a Small Business and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that the Small Business will receive at least 51 percent of the project dollars.

Women-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more women or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women.
- is a business whose management and daily business operations are controlled or owned by one or more women.
- is a business which is a sole proprietorship, corporation, partnership, or a joint venture, with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

Most Favored Customer as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.



CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b).

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than \$250 while their contract or permit is pending before SCAQMD; and further prohibits a campaign contribution from being made for three (3) months following the date of the final decision by the Governing Board or the MSRC on a donor's contract or permit. Gov't Code §84308(d). For purposes of reaching the \$250 limit, the campaign contributions of the bidder or contractor plus contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

In addition, SCAQMD Board Members or members/alternates of the MSRC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than \$250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC. Gov't Code §84308(c).

The list of current SCAQMD Governing Board Members can be found at SCAQMD website (www.aqmd.gov). The list of current MSRC members/alternates can be found at the MSRC website (<http://www.cleantransportationfunding.org>).

SECTION I.

Contractor (Legal Name): _____

DBA, Name _____, County Filed in _____

Corporation, ID No. _____

LLC/LLP, ID No. _____

List any parent, subsidiaries, or otherwise affiliated business entities of Contractor:
(See definition below).

SECTION II.

Has Contractor and/or any parent, subsidiary, or affiliated company, or agent thereof, made a campaign contribution(s) totaling \$250 or more in the aggregate to a current member of the South Coast Air Quality Management Governing Board or member/alternate of the MSRC in the 12 months preceding the date of execution of this disclosure?

☐ Yes ☐ No **If YES, complete Section II below and then sign and date the form.
If NO, sign and date below. Include this form with your submittal.**

Campaign Contributions Disclosure, continued:

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

DEFINITIONS

Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)

- (1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.
- (2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:
 - (A) One business entity has a controlling ownership interest in the other business entity.
 - (B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:
 - (i) The same person or substantially the same person owns and manages the two entities;
 - (ii) There are common or commingled funds or assets;
 - (iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
 - (iv) There is otherwise a regular and close working relationship between the entities; or
 - (C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

☐ I am unable to certify to the above statements. My explanation is attached.

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
	6 City, state, and ZIP code	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

2018 Withholding Exemption Certificate**590**

The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.

Withholding Agent Information

Name _____

Payee Information

Name _____

☐ SSN or ITIN ☐ FEIN ☐ CA Corp no. ☐ CA SOS file no.

Address (apt./sta., room, PO box, or PMB no.) _____

City (if you have a foreign address, see instructions.) _____

State _____

ZIP code _____

Exemption Reason**Check only one box.**

By checking the appropriate box below, the payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

☐ **Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Corporations:**

The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Partnerships or Limited Liability Companies (LLCs):**

The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

☐ **Tax-Exempt Entities:**

The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

☐ **Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**

The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

☐ **California Trusts:**

At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.

☐ **Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.

☐ **Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.To learn about your privacy rights, how we may use your information, and the consequences for not providing the requested information, go to ftb.ca.gov/forms and search for 1131. To request this notice by mail, call 800.852.5711.

Under penalties of perjury, I declare that I have examined the information on this form, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. I further declare under penalties of perjury that if the facts upon which this form are based change, I will promptly notify the withholding agent.

Type or print payee's name and title _____ Telephone (____) _____

Payee's signature ► _____ Date _____

2017 Instructions for Form 590

Withholding Exemption Certificate

References in these instructions are to the California Revenue and Taxation Code (R&TC).

General Information

Registered Domestic Partners (RDP) – For purposes of California income tax, references to a spouse, husband, or wife also refer to a Registered Domestic Partner (RDP) unless otherwise specified. For more information on RDPs, get FTB Pub. 737, Tax Information for Registered Domestic Partners.

A Purpose

Use Form 590, Withholding Exemption Certificate, to certify an exemption from nonresident withholding.

Form 590 does not apply to payments of backup withholding. For more information, go to ftb.ca.gov and search for **backup withholding**.

Form 590 does not apply to payments for wages to employees. Wage withholding is administered by the California Employment Development Department (EDD). For more information, go to edd.ca.gov or call 888.745.3886.

Do not use Form 590 to certify an exemption from withholding if you are a **Seller of California real estate**. Sellers of California real estate use Form 593-C, Real Estate Withholding Certificate, to claim an exemption from the real estate withholding requirement.

The following are excluded from withholding and completing this form:

- The United States and any of its agencies or instrumentalities.
- A state, a possession of the United States, the District of Columbia, or any of its political subdivisions or instrumentalities.
- A foreign government or any of its political subdivisions, agencies, or instrumentalities.

B Income Subject to Withholding

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California.

Withholding is required on the following, but is not limited to:

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.
- Payments to nonresidents for royalties from activities sourced to California.

- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

However, withholding is optional if the total payments of California source income are \$1,500 or less during the calendar year.

For more information on withholding get FTB Pub. 1017, Resident and Nonresident Withholding Guidelines. To get a withholding publication, see Additional Information.

C Who Certifies this Form

Form 590 is certified by the payee. California residents or entities exempt from the withholding requirement should complete Form 590 and submit it to the withholding agent before payment is made. The withholding agent is then relieved of the withholding requirements if the agent relies in good faith on a completed and signed Form 590 unless notified by the Franchise Tax Board (FTB) that the form should not be relied upon.

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN). The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies, and provide it upon request to the FTB.

If an entertainer (or the entertainer's business entity) is paid for a performance, the entertainer's information must be provided. **Do not** submit the entertainer's agent or promoter information.

The grantor of a grantor trust shall be treated as the payee for withholding purposes. Therefore, if the payee is a grantor trust and one or more of the grantors is a nonresident, withholding is required. If all of the grantors on the trust are residents, no withholding is required. Resident grantors can check the box on Form 590 labeled "Individuals — Certification of Residency."

D Definitions

For California nonwage withholding purposes, **nonresident** includes all of the following:

- Individuals who are not residents of California.
- Corporations not qualified through the California Secretary of State (CA SOS) to do business in California or having no permanent place of business in California.
- Partnerships or limited liability companies (LLCs) with no permanent place of business in California.
- Any trust without a resident grantor, beneficiary, or trustee, or estates where the decedent was not a California resident.

Foreign refers to non-U.S.

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information, get FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:

A corporation has a permanent place of business in California if it is organized and existing under the laws of California or it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. If a military servicemember and nonmilitary spouse have the same state of domicile, the MSRRA provides:

- A spouse shall not be deemed to have lost a residence or domicile in any state solely by reason of being absent to be with the servicemember serving in compliance with military orders.
- A spouse shall not be deemed to have acquired a residence or domicile in any other state solely by reason of being there to be with the servicemember serving in compliance with military orders.

Domicile is defined as the one place:

- Where you maintain a true, fixed, and permanent home.
- To which you intend to return whenever you are absent.

A military servicemember's nonmilitary spouse is considered a nonresident for tax purposes if the servicemember and spouse have the same domicile outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders.

California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRRA.

Income of a military servicemember's nonmilitary spouse for services performed in California is not California source income subject to state tax if the spouse is in California to be with the servicemember serving in compliance with military orders, and the servicemember and spouse have the same domicile in a state other than California.

For additional information or assistance in determining whether the applicant meets the MSRRRA requirements, get FTB Pub. 1032.

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

Enter the payee's information, including the TIN and check the appropriate TIN box.

You must provide a valid TIN as requested on this form. The following are acceptable TINs: social security number (SSN); individual taxpayer identification number (ITIN); federal employer identification number (FEIN); California corporation number (CA Corp no.); or CA SOS file number.

Private Mail Box (PMB) – Include the PMB in the address field. Write "PMB" first, then the box number. Example: 111 Main Street PMB 123.

Foreign Address – Follow the country's practice for entering the city, county, province, state, country, and postal code, as applicable, in the appropriate boxes. **Do not** abbreviate the country name.

Exemption Reason – Check the box that reflects the reason why the payee is exempt from the California income tax withholding requirement.

Withholding Agent Instructions

Do not send this form to the FTB. The withholding agent retains this form for a minimum of five years or until the payee's status changes, and must provide this form to the FTB upon request.

The payee must notify the withholding agent if any of the following situations occur:

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.

- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, and Form 592-V, Payment Voucher for Resident and Nonresident Withholding.

Additional Information

Website: For more information go to ftb.ca.gov and search for **nonwage**.

MyFTB offers secure online tax account information and services. For more information and to register, go to ftb.ca.gov and search for **myftb**.

Telephone: 888.792.4900 or 916.845.4900, Withholding Services and Compliance phone service

Fax: 916.845.9512

Mail: WITHHOLDING SERVICES AND COMPLIANCE MS F182
FRANCHISE TAX BOARD
PO BOX 942867
SACRAMENTO CA 94267-0651

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the TTY/TDD numbers, see the information below.

Internet and Telephone Assistance

Website: ftb.ca.gov

Telephone: 800.852.5711 from within the United States
916.845.6500 from outside the United States

TTY/TDD: 800.822.6268 for persons with hearing or speech impairments

Asistencia Por Internet y Teléfono

Sitio web: ftb.ca.gov

Teléfono: 800.852.5711 dentro de los Estados Unidos
916.845.6500 fuera de los Estados Unidos

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o de habla



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- | | |
|--|--|
| <input type="checkbox"/> Individual (Employee, Governing Board Member) | <input type="checkbox"/> New Request |
| <input type="checkbox"/> Vendor/Contractor | <input type="checkbox"/> Cancel Direct Deposit |
| <input type="checkbox"/> Changed Information | |

STEP 2: Payee Information

Last Name		First Name		Middle Initial	Title
Vendor/Contractor Business Name (if applicable)					
Address				Apartment or P.O. Box Number	
City		State	Zip	Country	
Taxpayer ID Number		Telephone Number		Email Address	

Authorization

- I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by SCAQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to SCAQMD for distribution. This will delay my payment.
- This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
- I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

STEP 3:

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

To be Completed by your Bank

Staple Voided Check Here	Name of Bank/Institution		
	Account Holder Name(s)		
	<input type="checkbox"/> Saving <input type="checkbox"/> Checking	Account Number	Routing Number
	Bank Representative Printed Name	Bank Representative Signature	Date
	ACCOUNT HOLDER SIGNATURE:		Date

For SCAQMD Use Only

Input By _____

Date _____



**2019
CARL MOYER MEMORIAL
AIR QUALITY STANDARDS ATTAINMENT PROGRAM
PROGRAM ANNOUNCEMENT
“Year 21”**

**SCAQMD PROGRAM ANNOUNCEMENT
#PA2019-02**

The South Coast Air Quality Management District (SCAQMD) is pleased to announce the availability of funds from the Carl Moyer Memorial Air Quality Standards Attainment Program (hereafter “CMP”). The CMP has played a significant role in incentivizing equipment owners to purchase cleaner-than-required engines, vehicles and equipment. This year marks SCAQMD’s 21st year of CMP implementation.

The CMP is intended to obtain “surplus” emission reductions of Nitrogen Oxides (NO_x), Particulate Matter (PM₁₀) and Reactive Organic Gases (ROG) from heavy-duty vehicles and other equipment operating in California as early and as cost-effectively as possible. The CMP provides financial incentives to equipment owners to repower, retrofit or replace in-use heavy-duty vehicles and equipment with cleaner-than-required engine and equipment technologies that will achieve emission reductions that are real, surplus, quantifiable and enforceable.

SECTION I – OVERVIEW

PURPOSE

The purpose of this Program Announcement (PA) is to solicit project applications for the 2019 Carl Moyer Memorial Air Quality Standards Attainment Program. **The budget for this PA will be approximately \$30 million from the CMP and AB 923 Funds. The SCAQMD expects to receive additional funds for this year’s CMP, which may include funds in support of AB 617-Community Air Protection Program and the FARMER Program.**

All applications will be evaluated based on the criteria set forth in this PA, the CMP Guidelines, and all subsequent updates and modifications/advisories to the Guidelines. This PA was prepared based on the latest version of the CMP Guidelines approved by the California Air Resources Board (CARB) on April 27, 2017, which are available online at:

<http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>.

This PA will identify the equipment categories, project options and key eligibility criteria to qualify for this year’s CMP. The detailed requirements for projects can be found in the CMP Guidelines. Applicants are encouraged to review the CMP Guidelines to confirm eligibility and understand the funding “caps” that may apply to certain types of projects. The SCAQMD will conduct workshops that provide additional opportunity for applicants to ask questions and seek clarification. The schedule of workshops is provided below.

In the preparation of this PA, the words “Applicant,” “Contractor,” and “Consultant” are used interchangeably.



WHAT'S NEW?

In June 2018, the California Governor approved SB 856 that allocates funds in support of the AB 617-Community Air Protection Program. Under this bill, \$245 million are allocated for financial incentives to reduce stationary and mobile source emissions. The project types listed in the bill include: mobile sources (including projects eligible under the CMP) with zero emission priority, charging infrastructure, especially for medium and heavy-duty vehicles, stationary sources and other projects included in the AB 617 community emission reduction plans. The SCAQMD anticipates the availability of SB 856 funds for eligible projects under this solicitation, although the funding amount for CMP projects is not yet known.

AB 1274 (O'Donnell) was signed by the Governor in October 2017 and resulted in the postponement of smog checks on new vehicles from Years 6 to 8, starting on January 1, 2019. A fee of \$25 per year the vehicle is exempted from smog check will be charged by DMV, and the revenues from the fee will be directed to the CMP. As a result of AB 1274, the funding for this year's CMP to be administered by the SCAQMD was increased by about \$4.3 million.

FUNDING CATEGORIES

Below are the specific project categories identified for funding under this PA:

- On-Road Heavy-Duty Vehicles, including transit fleet vehicles, drayage trucks, solid waste vehicles, public agency/utility vehicles and emergency vehicles (fire apparatus)
- Off-Road Equipment, including:
 - Marine Engine Repower
 - Shore Power (if project is not subject to CARB's At-Berth Regulation)
 - Construction Equipment
 - Agricultural Mobile Equipment (loaders, tractors, water pulls, etc.)
 - Locomotives
 - Cargo Handling Equipment
- Infrastructure to fuel or power a zero or near zero emission, heavy-duty vehicle or equipment, including but not limited to: on-road heavy-duty vehicles, cargo handling equipment, and marine vessels (shore power).

On-Road Heavy-Duty Vehicles

Below are the key requirements for on-road, heavy-duty vehicle projects:

- Fleets must be fully compliant with all applicable fleet regulations. Eligible project types include vehicle replacement and repower/conversion projects; on-road retrofit projects will be considered on a case-by-case basis.
- Eligible vehicle types include heavy-duty trucks and buses, transit buses, solid waste collection vehicles, public agency and utility fleet vehicles and emergency vehicles (however, emergency vehicles are only eligible under the replacement project type).
- In addition to the cost-effectiveness limit(s) prescribed by the CMP Guidelines, each vehicle/engine is also subject to a funding cap¹ based on various factors including weight class (i.e., gross vehicle weight rating (GVWR)), vehicle type, and the proposed technology. The

¹ Funding caps are provided in Tables 4-2 through 4-7 in the CMP Guidelines.



maximum grant award will be based on the allowable cost effectiveness and the applicable funding cap(s), whichever is less.

- Projects must include commercially available technologies that are certified or verified by CARB.

Off-Road Heavy-Duty Equipment/Engines

Below are the key requirements for the off-road equipment category:

- Fleets must be fully compliant with all applicable fleet regulations. Eligible project types include equipment replacement, engine repower and retrofit devices.
- Eligible equipment types include, but are not limited to: construction equipment, marine engines, shore power, locomotives, agricultural tractors, zero-emission rubber-tired gantry (RTG) cranes and other cargo handling equipment.
- Large fleets are eligible for CMP funding once after January 1, 2017. After January 1, 2017, for those large fleets eligible for funding a second or subsequent time, only zero-emission projects are eligible.

Infrastructure

Infrastructure projects that enable the deployment of alternative, advanced, and cleaner technologies to support the State's air quality goals are now eligible for CMP funding. Specifically, projects that install fueling or energy infrastructure that will be used to fuel or power zero or near-zero emission, heavy-duty vehicles or equipment are eligible for CMP funding consideration. The vehicles or equipment that will utilize the infrastructure must be a "covered source" under CMP, which includes heavy-duty on-road vehicles, off-road non-recreational equipment and vehicles, locomotives, marine vessels, agricultural sources of air pollution, and other categories as determined by CARB and SCAQMD that are necessary for the state and air district to meet air quality goals.

Infrastructure projects will be selected on a competitive basis with consideration for location within a disadvantaged or low-income community, renewable fuel source, public access, site availability for the life of the project, fleet commitments to utilize the infrastructure, cost-share and other factors that will determine the level of utilization of the infrastructure. The priority for project selection may change based on technology development/commercialization and requirements of any additional funds that may become available. Infrastructure projects are not subject to a cost-effectiveness limit. Applicants must provide a minimum of two bids from qualified installers for the infrastructure project as part of the application. In addition, applicants shall describe the process used or that will be used to solicit and select the final bid. Infrastructure projects may also require a case by case review by CARB. Applicants must demonstrate that they either own the land on which the project will be located, or control it through a long-term lease, easement or other legal arrangement, for the duration of the project life.

Eligible infrastructure projects include, but are not limited to:

- Battery charging stations: New, conversion of existing, and expansion to existing battery charging stations for heavy-duty vehicles and equipment
- Alternative Fueling Station: New, conversion of existing, or expansion of existing hydrogen or natural gas fueling station for heavy duty vehicles and equipment



- Stationary Agricultural Station: Pump electrification
- Shore Power: Shore-side electrification for projects not subject to CARB's shore power regulation. Only a port authority, terminal operator, or marine vessel owner is eligible for this type of infrastructure project.

A vehicle or equipment project is not required to be submitted as a condition of eligibility for infrastructure funding.

Purchase orders or other purchase commitments to design and install the proposed infrastructure shall not be placed until after the date of award approval by the SCAQMD Governing Board. Further, any purchase commitments placed after SCAQMD Governing Board approval but in advance of a fully executed contract are placed at the applicant's own risk.

Regulatory Compliance

All applicants must be fully compliant with all applicable regulations in order to be eligible for consideration for CMP funding. Refer to CARB's fleet rule Web pages that provide detailed information on compliance with these regulations. These are listed below in Section VI.

GENERAL PROGRAM INFORMATION

The CMP award amount shall not exceed the project's incremental cost, applicable funding caps and cost-effectiveness limit(s). The "Step 1" cost-effectiveness limit, \$30,000 per weighted ton of emissions reduced, applies to projects that bring vehicles and equipment up to current standards. The "Step 2" cost-effectiveness limit, \$100,000 per weighted ton of emissions reduced, applies to projects that are zero-emission or meet the cleanest certified optional standard applicable (by source category).

All projects must meet the criteria stated in this PA and the CMP Guidelines in effect at the time of contract execution. A project's cost effectiveness is determined based on the annualized cost of the project and the amount of NO_x, ROG and PM₁₀ emission reductions that will be achieved by the project. Project cost effectiveness is currently calculated according to the following formula:

$$\frac{\text{Annualized Cost (\$/year)}}{[\text{NO}_x \text{ reduction} + 20 (\text{combustion PM}_{10} \text{ reduction}) + \text{ROG reduction}] (\text{Tons/year})}$$

For projects that involve advanced technologies, the cost effectiveness will be calculated using the CMP's two-step calculation approach.²

All projects must be operational within eighteen (18) months of contract execution or by May 21, 2021, whichever is earlier. Some projects may have earlier in-service operational date requirements, if they are subject to CARB regulations.

² Detailed guidance for the new two-step calculation approach, as well as all CMP emissions reduction and cost effectiveness calculations is available at:

https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_c.pdf.



It is the applicant's responsibility to ensure that the most current information and requirements are reflected in a submitted project application. Applicants should check the CARB website for updates and advisories to the guidelines (www.arb.ca.gov/msprog/moyer/moyer.htm).

In cases of conflict between CARB guidelines and SCAQMD criteria, the more stringent criteria will prevail. SCAQMD will post any new information and requirements on its CMP Web page at www.aqmd.gov/moyer.

Projects subject to CARB regulations must submit a copy of the most recent CARB compliance report(s) or other documentation that provides SCAQMD with clear understanding of the applicant's compliance status.

All emission reductions resulting from funded projects will be credited to the CMP. An award shall not be made that provides the applicant with funds in excess of the maximum eligible amount, in accordance with CMP guidelines.

A project may be leveraged with other funding sources. The applicant must disclose all funding sources at the time of application and will be required to report all funding sources prior to invoice payment. Other funding sources may include but are not limited to: federal funding programs that reduce greenhouse gas (GHG) emissions, funding provided by the Alternative and Renewable Fuel and Vehicle Technology Program, Air Quality Improvement Program, or CARB's Low Carbon Transportation Investment funds to reduce GHG emissions. The sum of all grants and other funds applied toward the project shall (1) not exceed the total project cost for public agency applicants and (2) not exceed 85% of the total project cost for non-public agency applicants. In other words, the applicant³ must pay at least 15 percent of the project cost from non-public sources.

The emission reductions paid for by the CMP shall not be claimed by the other funding sources.

ELIGIBILITY INFORMATION

Emission reductions obtained through CMP projects must be real, surplus, quantifiable and enforceable. The emission reductions must not be required by any federal, state or local regulation, memorandum of agreement/understanding, settlement agreement, mitigation requirement or other legal mandate.

Engines operating under a regulatory compliance extension granted by CARB, an air district or the United States Environmental Protection Agency (U.S. EPA) are not eligible for funding.

Key program requirements for on- and off-road equipment categories are highlighted below; however, applicants are responsible for consulting the CMP guidelines for additional program limitations/requirements. For repower and replacement projects, the replacement engine must result in a minimum of 15 percent NOx reduction.

³ Public agencies are exempt from this requirement.



ON-ROAD VEHICLES

For purposes of the CMP, the following on-road vehicle classifications are used:

Vehicle Classification	GVWR
Light Heavy-Duty (LHD)	14,001 to 19,500 pounds
Medium Heavy-Duty (MHD)	19,501 to 33,000 pounds
Heavy Heavy-Duty (HHD)	Over 33,000 pounds

The proposed vehicle must be in the same weight class as the existing vehicle (LHD, MHD or HHD). The engine must be certified to the applicable heavy-duty intended service class as shown on the engine certification Executive Order. However, the following cases may be allowed: 1) MHD engines may be installed in HHD vehicles with GVWR up to 36,300 lbs. (10 percent higher than 33,000 lbs. GVWR) with written warranty verification by engine and chassis manufacturer, or 2) HHD engines may be installed in MHD vehicles if necessary for vocational purposes but only if the GVWR are within 10 percent of the HHD intended service class (i.e., GVWR of 29,701 lbs. or greater).

Executive Orders for on-road vehicles may be downloaded at:

<http://www.arb.ca.gov/msprog/onroad/cert/cert.php>.

Project emission reductions will be based on the lower of two 12-month periods of California usage during the previous twenty-four months. Fleet averages cannot be used.

Replacement

This project type involves the replacement of an older, in-use vehicle with a newer, cleaner vehicle. The replacement engine must be 2013 or newer engine model year certified by CARB at or below the optional low NO_x standard of 0.10 g/bhp-hr and PM emission standard of 0.01 g/bhp-hr. In alignment with SCAQMD's 2016 AQMP, all on-road projects under the CMP must select the optional low-NO_x, hybrid or zero-emission technologies for fleet sizes of greater than 10 vehicles. Fleet size is determined based on the number of vehicles with a GVWR of 14,001 lbs or greater.

The SCAQMD requires that all on-road projects be operated within the SCAQMD jurisdiction for at least 75% of the time. Applicants must clearly demonstrate their compliance status with the applicable CARB regulation (i.e., Statewide Truck & Bus Regulation, Drayage Truck Regulation, Fleet Rule for Public Agencies & Utilities, Transit Bus Regulation, TRU ATCM, etc.) at the time of application submittal.

Please note that if you are an owner of a fleet with 10 or fewer vehicles (greater than 14,000 lbs. GVWR), you may be eligible for funding through the On-Road Voucher Incentive Program (VIP). Please refer to the SCAQMD's VIP Web page to explore funding opportunities for replacement at: www.aqmd.gov/vip.



In addition, the following on-road projects will be considered on a case-by-case basis:

- On-road vehicles with a GVWR between 8,501 and 14,000 pounds,
- Retrofits that reduce NO_x by at least 15 percent; for engines that are certified above 0.01 g/bhp-hr PM, the retrofit must also reduce PM emissions by 85 percent,
- Zero-emission transport refrigeration units (TRUs).

Emergency Vehicles

Authorized emergency vehicles, as described in California Vehicle Code 165, including but not limited to fire apparatus, pumpers, ladder trucks, water tenders, and prisoner transport buses, are exempt from CARB regulations and therefore eligible for CMP funding. Eligible emergency vehicle projects are those in which an older, more polluting emergency vehicle is replaced with a new or used replacement vehicle with an engine meeting the current model year California emission standards. The older, replaced vehicle must be destroyed. Emergency vehicles are eligible for up to 80 percent of the eligible costs as outlined in the program guidelines.

A fire truck reuse option is also available on a case-by-case basis. The fire truck reuse option allows fire departments to give away the existing old vehicle and destroy another older vehicle in its place.

Repowers

This project type involves the repower of an existing, in-use engine with a new, cleaner engine. The replacement engine must be CARB-certified at or below the optional low-NO_x emissions level of 0.10 g/bhp-hr NO_x and 0.01 g/bhp-hr PM₁₀. Repowers may be funded in various applications. However, due to technological constraints presented with the limited feasibility of newer engines with advanced emissions control equipment fitting into older chassis and maintaining durability, repowers with diesel engines are rare project types for trucks. Repowers with alternative fuel engines may not have the same technological constraints and may become more prevalent.

To ensure durability, certain repower projects may require prototype testing. If the project has been previously completed by the manufacturer, prototype testing is not required. The prototype testing must comply with the engine manufacturer quality assurance process that is equivalent to an Original Equipment Manufacturer (OEM) package. In these cases, a prototype vehicle (or vehicles) is thoroughly reviewed and tested to ensure that the installation meets OEM requirements, and the successful prototype installation is then replicated in other vehicles with the same chassis and engine combination. Per the CMP guidelines, air districts may approve repower projects that meet the OEM quality assurance process described above, subject to the following:

- Moyer Program funding may not be used for any costs associated with the prototype vehicle or vehicles.
- Repower contracts may not be executed until the prototype testing specified by the engine manufacturer is successfully completed.
- Written documentation from the engine manufacturer confirming that the prototype was successful must be maintained in the project file.
- If the proposed repower has been done previously by the manufacturer on the same chassis/engine configuration, prototype testing is not required. The manufacturer must provide



written confirmation that the previous work was performed successfully and met OEM requirements.

Conversions

Conversions involve the replacement or modification of the original engine or vehicle to include either a cleaner engine or other system that provides motive power and change of the fuel type used. Hybrid conversion systems using internal combustion engines must be certified according to “California Certification and Installation Procedures for Medium-and Heavy-Duty Vehicle Hybrid Conversion Systems.” The baseline engine model year for hybrid conversions must be 2010 or newer. The conversion system manufacturer must provide written confirmation that the funded vehicle would not exceed the certified allowable limit. All-electric conversion systems must receive an exemption Executive Order per Vehicle Code section 27156.

OFF-ROAD COMPRESSION-IGNITION EQUIPMENT

This category includes off-road, mobile compression ignition equipment with engines greater than 25 horsepower. Off-road heavy-duty equipment/engines include, but are not limited to: construction equipment, agricultural tractors, marine engines, shore power and locomotive equipment. Portable equipment is not eligible for CMP funding. The following off-road equipment projects may be eligible for funding:

- Repower: The replacement of an existing engine with a newer emission-certified engine, or zero-emission system, instead of rebuilding the existing engine to its original specifications.
- Retrofit: The installation of a CARB-verified emission control system on an existing engine. Examples include but are not limited to: particulate filters and diesel oxidation catalysts.
- Equipment Replacement: The purchase of new or used equipment with an engine certified to the current emission standard (Tier 4 Final) or zero-emission technology to replace an older, fully functional piece of equipment that is to be scrapped.

For off-road replacement and repower projects, the CMP guidelines specify that the horsepower rating of the new (or replacement) engine must not be greater than 125 percent of the original manufacturer rated horsepower of the old (or existing) engine. If the new engine is greater than 125 percent, then the eligible funding amount will be based on the cost of an engine or equipment with a horsepower rating that is no higher than 125 percent of the existing engine horsepower rating. The applicant must pay the additional costs associated with the higher horsepower engine and obtain a price quote for an engine or equipment that is within the 125 percent range for the funding determination. In addition, verifiable records on the existing engine must be provided with the application to accurately identify the engine manufacture year and horsepower (e.g., photographs of engine labels, statement from engine manufacturers, etc.).

Construction Equipment

Fleets must be in compliance with CARB’s In-Use Off-Road Diesel Vehicle Regulation (Off-Road Regulation) in order to be eligible for funding. Large fleets are eligible for funding once after January 1, 2017. After January 1, 2017, for those large fleets eligible for funding a second or subsequent time, only zero-emission projects are eligible.



Applicants must submit information regarding fleet size and compliance status. **This must include the Diesel Off-Road On-line Reporting System (DOORS) ID of the fleet, the DOORS Compliance Snapshot, the DOORS equipment list, and the DOORS Equipment Identification Number (EIN) of the funded equipment.** All documentation submitted must be signed and dated by the applicant and include language certifying that the fleet list provided is accurate and complete.

Off-road projects fall into three distinct categories: 1) repower existing equipment with an emission-certified engine, 2) retrofit with a verified-diesel emission control strategy (VDECS), and 3) replacement of an older, fully functional piece of equipment (that is to be scrapped) by equipment with an engine certified as meeting the current off-road emission standards, or cleaner.

Marine Vessel Projects

Marine vessel project types include engine repower and shore power. Only existing engines on a marine vessel with a fully functioning non-resettable hour meter are eligible for CMP funding.

Marine Engine Repower

Vessels not subject to the in-use compliance requirements of CARB's Commercial Harbor Craft (CHC) Regulation such as fishing vessels, pilot boats and work boats are eligible. Vessels subject to the in-use compliance requirements of CARB's Commercial Harbor Craft (CHC) regulation (i.e., barge, crew/supply, dredge, excursion, ferry, towboat and tugboats) are also eligible as long as the vessel is fully compliant with the CHC Regulation (i.e., engines meet Tier 2 standards). Based on the vessel's operation, the newer engine's emissions must be surplus to the currently required U.S. EPA marine engine emission standard (i.e., Tier 3, Tier 4, etc.). Remanufacture kits, which are comprised of engine component parts that, when installed, reduce the engine's emissions, are subject to the same requirements as engine repower projects. For all marine engine repower projects, the replacement engine must provide at least a 15 percent NO_x reduction relative to the baseline engine.

Shore Power Projects

Limited CMP funding opportunities remain for shore power projects due to the applicability of CARB's At-Berth Regulation. Applicants must submit their CARB-approved Initial Terminal Plan to document compliance with CARB's Shore Power regulation. The proposed projects must provide emission reductions that are surplus to regulatory requirements. Projects not subject to CARB's regulation are eligible.

Locomotives

All new locomotives and replacement engines must be certified to Tier 4 standards or cleaner to be eligible for CMP funding. There are very limited CMP funding opportunities for Class 1 freight railroads. Such a project will be subject to a case-by-case approval by CARB. Class 3 freight railroads and passenger railroads are not subject to any CARB fleet regulations and are therefore eligible for CMP funding.

The following project types are eligible for CMP funding:

1. Locomotive replacement (the reuse and/or recycling of the baseline chassis is allowed if the baseline engine is destroyed)
2. U.S. EPA-certified engine remanufacture kit or repower



3. Head-end power (HEP) unit (apply as an off-road engine project).

DEFINITIONS

Alternative Fuel

Alternative fuels include compressed natural gas (CNG), liquefied natural gas (LNG), hydrogen (H₂), methanol, ethanol, propane (LPG) and electric technologies. Experimental technologies and fuels will be referred to CARB for evaluation and possible eligibility in the Program.

Equipment Replacement

Equipment replacement means the replacement of an older vehicle or piece of equipment that still has remaining useful life with a newer, cleaner vehicle or piece of equipment. For this project type, applicant must have owned and operated the old equipment in California for the previous two years.

Repower

Vehicle repower means the replacement of an in-use engine with another, cleaner engine (more than 15 percent cleaner).

Retrofit

An emission control system employed exclusively with an in-use engine, vehicle or piece of equipment. CARB guidance requires the applicant to select the highest level technology certified for that engine that provides the most emission reductions. For many projects, this includes a diesel emission control device that reduces both PM and NO_x emissions. In order to be eligible for CMP funding, the retrofit device must be verified for the specific engine family found on the equipment and achieve the highest level emission reductions when compared to other verified retrofit devices. If a specific device reduces both NO_x and PM, but the PM reduction from a retrofit is required by a regulation, only the NO_x reduction may be eligible for funding.

SCAQMD Jurisdiction

The SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties. This area of 10,743 square miles is home to approximately 17 million people—about half the population of the whole state of California. It is the second most populated urban area in the United States and one of the smoggiest. Visit <http://www.aqmd.gov/nav/about/jurisdiction> for more information.

IMPORTANT PROGRAM INFORMATION

- Applicants **must** provide vendor quotes with their application to document the cost of the low- or zero-emission vehicle/equipment project. Applicants may be awarded up to the designated percentage of total cost for the specified type of project (new purchase, repower replacement and/or retrofit), subject to funding caps and program cost-effectiveness limits. Eligible costs include installation labor and sales tax. **All quotes must have been obtained within 90 days prior to the application submittal date.**
- A number of the CARB fleet rules and air quality regulations impact CMP eligibility. Compliance with existing CARB regulations is a pre-requisite for CMP funding. Only emission



reductions in excess of regulatory requirements can be considered for CMP funding. If applicants are applying for CMP funds to reduce emissions before the required compliance date (i.e., early reductions), the equipment must demonstrate sufficient years of operation before the regulatory compliance deadline. Applicants are responsible for ensuring that they are in full compliance with all applicable regulations and that vehicle/equipment requests under the CMP provide surplus emission reductions. As noted earlier, applicants must provide documentation of their regulatory compliance status.

- Any tax obligation associated with the award is the responsibility of the applicant.
- All projects must be operational within eighteen (18) months of contract execution or May 21, 2021, whichever is earlier.
- All project invoices must be submitted for payment no later than May 21, 2021. Projects which have not invoiced by the applicable date may forfeit their funding.
- No third-party contracts will be executed.
- Pre- and post-inspection of all vehicles/engines/equipment approved for funding will be conducted, as required. Applicants must make all equipment available **locally (i.e., within the SCAQMD boundaries)** for inspections unless specified during contract preparation. Documentation of compliance with existing regulatory requirements is required at the time of pre-inspection.
- **Local** destruction of the engine and/or equipment being replaced is required for repower or replacement projects.
- The project's cost effectiveness will be based on the historical usage of the existing equipment for the previous two years. The usage for off-road equipment projects will be based on hours (except for locomotive projects, which require annual fuel consumption), and the usage for on-road vehicle projects will be based on mileage. The applicant must provide the historical usage records for the equipment as part of the application. If historical usage documentation is not available, the proposed annual usage provided by the applicant will be used to determine the project's cost effectiveness and specified as a requirement in the contract. For on-road projects, the emission reductions will be based on the lower of the two 12-month periods of California usage during the previous twenty-four months. Fleet averages cannot be used.

PROGRAM ADMINISTRATION

The CMP will be administered locally by the SCAQMD through its Technology Advancement Office. The SCAQMD reserves the right to allocate the CMP funds among the program categories or to specific projects in accordance with SCAQMD priorities. Additionally, the SCAQMD reserves the right to partially fund a project, such as the case where a project is found to exceed the cost effectiveness limit.

All qualified applications submitted in response to this PA will first be evaluated for completeness. SCAQMD staff will notify each applicant of an incomplete application and request the additional



information within thirty (30) business days of the application submittal due date of June 4, 2019. SCAQMD will send letters to applicants regarding missing information. Applicants will have seven (7) business days to provide any missing information requested in the letter. It will be the applicant's responsibility to submit the missing or incomplete information within the time specified by SCAQMD staff. Only completed applications can move forward in the evaluation process.

Each project will be evaluated for its status as a Disadvantaged Community (DAC) or low-income community, as discussed in Section IV below. Each project will also be evaluated for cost effectiveness and ranked accordingly, except for infrastructure projects. Infrastructure projects are not subject to a cost-effectiveness limit, but instead will be evaluated on a competitive basis using metrics that include, but are not limited to: fleet usage commitments, public access, project type (i.e., public, private, solar, wind, renewable natural gas), expected vehicle usage/throughput and cost share. Funding category allocations will be determined based on the evaluation and selection criteria in Section IV and subject to approval by the SCAQMD Governing Board.

Applications for fuel and engine technologies that are not certified, verified or approved by CARB, or falling outside the categories specifically discussed in this PA, may be referred to CARB for determination of CMP eligibility on a case-by-case basis. Please discuss these projects with SCAQMD staff prior to application submittal.

SCHEDULE OF EVENTS

Issue #PA2019-02	March 1, 2019
Workshops	April – May 2019
All Applications Due by 1:00 pm	Tuesday, June 4, 2019
Awards Consideration by the Board	October 2019
Contract Execution	February - March 2020

<p>ALL APPLICATIONS MUST BE RECEIVED ELECTRONICALLY OR ON PAPER AT THE SCAQMD HEADQUARTERS NO LATER THAN 1:00 P.M. ON TUESDAY, JUNE 4, 2019</p>
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Electronic submission using SCAQMD's new CMP Online Application Program (OAP) is preferred and is available at: www.aqmd.gov/mover.

If a paper copy application is being submitted, postmarks will not be accepted as compliant with the deadline; the paper copy applications must be received at the SCAQMD Headquarters reception desk by the above deadline. Fax or email applications will not be accepted. Applicants may hand deliver applications to the SCAQMD by submitting the application to the SCAQMD reception desk. The application will be date and time-stamped and the person delivering the application will be given a receipt. SCAQMD will hold workshops during the application period



to provide background and assistance with program requirements, eligibility and a tutorial for the OAP. These workshops are scheduled as follows:

ON-ROAD HEAVY-DUTY VEHICLE/INFRASTRUCTURE/MARINE VESSEL/SHORE POWER /CHE ELECTRIFICATION WORKSHOP

- **Wednesday, April 10, 2019 – 10 a.m. to Noon**
Port of Los Angeles Board Room
425 South Palos Verdes Street
San Pedro, CA 90731

OFF-ROAD AGRICULTURAL EQUIPMENT/ENGINES WORKSHOP

- **Wednesday, April 17, 2019 – 10 a.m. to 1 p.m.**
Coachella Valley Mosquito & Vector Control District, Board Room
43420 Trader Place
Indio, CA 92201

SCHEDULE OF CMP GENERAL WORKSHOPS:

- **Wednesday, April 24, 2019 - 9 a.m. to Noon**
SCAQMD Headquarters, Conference Room CC6
21865 Copley Drive
Diamond Bar, CA 91765
- **Thursday, May 2, 2019 - 9 a.m. to Noon**
SCAQMD Headquarters, Conference Room CC6
21865 Copley Drive
Diamond Bar, CA 91765
- **Wednesday, May 8, 2019 – 9 a.m. to Noon**
SCAQMD Headquarters, Conference Room CC6
21865 Copley Drive
Diamond Bar, CA 91765

Training and assistance with the online application system will be included in these workshops.

STATEMENT OF COMPLIANCE

Government Code Section 12990 and California Administrative Code, Title II, Division 4, Chapter 5, require employers to agree not to unlawfully discriminate against any employee or applicant because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, or age. A statement of compliance with this clause is included in all SCAQMD contracts.

CONTACT FOR ADDITIONAL INFORMATION

Questions regarding the content or intent of this PA, procedural matters or locations of workshops should be addressed to:



Walter Shen
Science and Technology Advancement
South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765
Phone (909) 396-2487/FAX (909) 396-3252
wshen@aqmd.gov

SECTION II - WORK STATEMENT/SCHEDULE OF DELIVERABLES

Applicants must sign the Application form indicating their understanding of the requirements for submittal of additional project information to finalize a contract and that all vehicles, engines or equipment must be in operation within eighteen (18) months of contract execution or by May 21, 2021, whichever is earlier. **Unsigned applications may be deemed ineligible and may NOT be considered for funding.**

WORK STATEMENT

The scope of work involves a series of tasks and deliverables that demonstrate compliance with the requirements of the CMP as administered by CARB and the SCAQMD. The project applicant is responsible for developing detailed project plans and ordering equipment that complies with the program criteria and guideline requirements. In addition, alternative fuel project applicants must discuss their plan for refueling the proposed vehicles/equipment, and if appropriate, should provide a letter of agreement from their fuel provider (see Application forms).

At a minimum, any contract for funding the proposed project must meet the following criteria:

- Provide emission reductions that are real, surplus, quantifiable and enforceable in accordance with CMP guideline requirements.
- Meet the cost-effectiveness limit, as described in this PA and the CMP Guidelines, and subsequent CMP Advisories.
- For repower and replacement projects, the replacement engine must achieve an annual NO_x emissions benefit of at least 15 percent to receive any funding for NO_x reductions.
- Commit that project engines or equipment operate in-service for the full project life, a minimum of three years⁴, and at least 75 percent of annual operation must occur within the SCAQMD except for line-haul locomotives. The line-haul locomotives may be eligible for funding with a minimum of 51% annual operation within the SCAQMD. The cost-effectiveness calculation will be based on the SCAQMD operation. Project life is the number of years used to determine the cost effectiveness and is equal to the contract term.
- Commit that all vehicles/engines/equipment are in operation within 18 months of contract execution or by May 21, 2021, whichever is earlier.
- Provide for appropriate recordkeeping during the project life (i.e., annual mileage, fuel consumption and/or hours of operation), including submission of annual reports as detailed below.
- Ensure that the project complies with all applicable rules and regulations, and the resulting emission reductions from the project are not required as a mitigation measure to reduce

⁴ On-road projects may have a one-year minimum life, though it is difficult to qualify for meaningful funding with such a short project life.



adverse environmental impacts that are identified in an environmental document prepared in accordance with the California Environmental Quality Act or the National Environmental Policy Act.

- If requested, Contractor must provide a financial statement and bank reference, or other evidence of financial ability to fulfill contract requirements.
- If requested, Contractor must make all equipment and records available to the SCAQMD or CARB for audit and inspections.

DELIVERABLES

The contract will describe how the project will be monitored and what type of information must be submitted as part of the reporting requirements. At a minimum, the SCAQMD expects to receive an annual report for each year during the full contract term, or project life, which provides the annual miles or hours of operation⁵, where the vehicle or equipment was operated and operational and maintenance issues encountered and how they were resolved. SCAQMD reserves the right to verify the information provided.

Reporting forms are available online at: www.aqmd.gov/moyer.

SECTION III - APPLICATION SUBMITTAL REQUIREMENTS

Applicants are encouraged to apply for CMP funding using the SCAQMD's new CMP Online Application Program at: www.aqmd.gov/moyer. Applicants may also complete and submit a paper application with the appropriate application forms, which are listed in Appendix A. In addition, all Business Information Request Forms⁶, including Conflict of Interest and Project Cost information, as described below, must also be submitted with the application. It is the responsibility of the applicant to ensure that all information submitted is accurate and complete.

Submit the original plus three (3) complete paper copies and one digital copy of all the entire application package.

CONFLICT OF INTEREST

Applicant must address any potential conflicts of interest with other clients affected by actions performed by the firm on behalf of the SCAQMD. Although the applicant will not be automatically disqualified by reason of work performed for such firms, the SCAQMD reserves the right to consider the nature and extent of such work in evaluating the application. Conflicts of interest will be screened on a case-by-case basis by the SCAQMD General Counsel's Office. Conflict of interest provisions of the state law, including the Political Reform Act, may apply to work performed pursuant to this contract. Please discuss potential conflicts of interest on the Application Statement Form in Appendix A.

PROJECT COST

Applicants must provide cost information that specifies the amount of funding requested and the basis for that request by attaching vendor quotes to the application. The vendor quotes must be dated within

⁵ Locomotive projects shall report annual fuel consumption.

⁶ www.aqmd.gov/moyer



90 days of the application submittal date. Applicants need to inform vendors of the time frame of the award process so that they can estimate prices based on the future/projected order/purchase date.

Purchase orders or other purchase commitments shall not be placed until after the date of award approval by the SCAQMD Governing Board. Purchase orders may be placed after SCAQMD Governing Board approval and in advance of a fully executed contract, but these orders/commitments are placed at the applicant's own risk⁷.

The CMP will fund only a percentage of the cost of the low emission or zero-emission technology based on the type of project. The proposed low-emission or zero-emission technology must be certified, verified or approved by CARB in most cases⁸. No administrative or operational costs will be funded.

All project costs must be clearly indicated in the application. In addition, applicants must disclose all sources of co-funding, including the name of the funding source and amount of funding in the application. **Applicants are cautioned that the project life period used in calculating emissions reductions will be used to determine the length of their annual reporting obligation.** In other words, a project applicant using a ten-year life for the emissions reduction calculations will be required to operate, track and report activity for the project vehicle for the full ten years. The contract term will also be ten years.

Applicants are not required to calculate a project's cost effectiveness. Methodologies for calculating cost effectiveness are provided in the CARB Moyer Guidelines at:

https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_c.pdf.

APPLICATION SUBMISSION

All applications must be submitted according to specifications set forth herein. Failure to adhere to these specifications may be cause for rejection of the application without evaluation.

Staff Contact Information: SCAQMD staff contacts for each category are listed in Table 1 below. Applicants are strongly encouraged to contact SCAQMD staff to discuss their project prior to submitting an application to ensure program eligibility.

For Paper Copy Applications - Application Forms: *(This section does not pertain to applicants using the SCAQMD's CMP Online Application System.)* The application forms are identified in Appendix A. These must be completed and submitted with other required documents (i.e., Business Information Forms, activity documentation, project quotes, etc.) discussed in the application and below.

A separate Form A-1 is required for each category (i.e., on-road, marine, off-road, locomotive, etc.). For example, if an applicant is requesting funding for marine engine repowers and off-road construction equipment, then two (2) separate Form A-1 applications must be submitted – one for each

⁷ Any purchase order/purchase commitment placed prior to the SCAQMD Governing Board approval of the project are prohibited by the CMP. However, orders/commitments placed after SCAQMD Governing Board approval but in advance of a fully executed contract are at the applicant's own risk.

⁸ Note that an experimental permit from CARB may be considered, but the project will require special CARB approval.



category. In addition to each Form A-1, the applicable category Form is required for each piece of equipment for which funding is requested (i.e., B-1, C-1, etc.). For example:

Example Application Package:

Applicant X plans to submit a request for CMP funding to replace three vehicles and two locomotives. The forms required are:

- Form A-1 (General Application Form), which includes:
 - Application Checklist
 - Application Statement
 - Business Information Request Forms (see details below)
- Complete a Form B-1 (On-Road Heavy-Duty Vehicle Replacement), one for each vehicle to be replaced
- Complete a Form E-1 (Locomotive Replacement), one for each locomotive to be replaced

Business Information Request Forms: Consists of business information forms that **must** be completed and submitted with the Application. Please note, if recommended for an award, you will be required to submit an updated Campaign Contribution Disclosure form at a later date. Download these forms at www.aqmd.gov/moyer.

Submit the original plus three (3) complete paper copies and one digital copy of all the entire application package.

Methods for Delivery:

1. **Electronic Submittal:** The preferred method of delivery for this solicitation is through SCAQMD's CMP Online Application Program (OAP), available at: www.aqmd.gov/moyer. This online system allows applicants to submit applications electronically to the SCAQMD prior to the date and time specified below. SCAQMD "Business Information Request Forms" requiring signatures must be scanned and uploaded to the electronic application in PDF format. The system will not allow applications to be submitted after the due date and time.

First-time users must register as a new user to access the system. Applicants will receive a confirmation email after all required documents have been successfully uploaded. A tutorial of the system will be provided at the pre-application workshops and you may contact the Project Officer listed in Table 1 if you would like additional assistance.

2. **Paper Copy Submittals** – Although not preferred, an applicant may deliver the application in person or via a courier service or U.S. Mail. Applicants **shall submit the original plus three (3) complete signed copies of the application package (all forms and documents), as well as an electronic copy of the application and its supporting documents on a CD or flash drive**, in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the applicant and the words "**Program Announcement #PA2019-02.**" All paper copy applications shall be submitted in an environmentally friendly format: stapled, not bound, black and white print; no three-ring, spiral or plastic binders, and no card stock or colored



paper. All application forms may be accessed from the SCAQMD's CMP homepage at www.aqmd.gov/moyer.

Due Date - All applications must be received, either via the OAP or on paper, no later than **1:00 p.m., on Tuesday, June 4, 2019**. Postmarks are not accepted as proof of deadline compliance. **Faxed or emailed applications will not be accepted**. Applications must be directed to:

Procurement Unit
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Any correction or resubmission done by the applicant will not extend the submittal due date.

Grounds for Rejection - An application may be immediately rejected if:

- It is not prepared in the format described
- It is not signed by an individual authorized to represent the firm
- Does not include current cost quotes, Contractor Statement Forms and other forms required in this PA.

Missing Information – Within thirty (30) business days of the application submittal due date of June 4, 2019, SCAQMD will send letters to applicants regarding the missing or incomplete information. Applicants will have seven (7) business days to provide any missing information requested in the letter. It will be the applicant's responsibility to submit the missing or incomplete information within the time specified by SCAQMD staff. Only complete applications can move forward in the evaluation process.

Disposition of Applications - The SCAQMD reserves the right to reject any or all applications. All responses become the property of the SCAQMD. One copy of each application not selected for funding shall be retained for one year. Additional copies and materials will be returned only if requested and at the applicant's expense.

SECTION IV - APPLICATION EVALUATION/CONTRACTOR SELECTION CRITERIA

SCAQMD staff will evaluate all qualified applications and make recommendations to the Governing Board for final selection of project(s) to be funded. Each project will be evaluated based on two primary criteria: (1) the cost effectiveness of NOx, PM10 and ROG reduced, and (2) the project's status with respect to the disadvantaged community and low-income criteria prescribed by CARB.

Note: Infrastructure projects are not subject to a cost-effectiveness limit but instead will be evaluated on a competitive basis using metrics that include, but are not limited to: fleet usage commitments, public access, project type (i.e., public, private, solar, wind, renewable), expected vehicle usage/throughput and cost share.



Be aware that there is a possibility that due to program priorities, cost effectiveness or funding category limitations (i.e., caps), project applicants may be offered only partial funding, and not all applications that meet the cost-effectiveness criteria may be funded.

At least 50 percent of SCAQMD's CMP funds are targeted for projects that meet the criteria of a disadvantaged or low-income community. The Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency (CalEPA) has developed the California Communities Environmental Health Screening Tool: CalEnviroScreen Version 3.0 (CalEnviroScreen 3.0). The CalEnviroScreen 3.0 tool will be used by SCAQMD to identify projects that qualify as a DAC, which is defined as scoring in the top 25th percentile, and will strive to maximize the benefits to these communities from this PA. All applications will be assessed with the CalEnviroScreen tool to identify and verify if the project will benefit a DAC. This tool is available at:

<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

SECTION V - PAYMENT TERMS

For all projects except shore power projects, full payment will be made upon installation and commencement of operation of the funded equipment. For shore power projects, a progress payment schedule may be established that allows payment upon completion of key milestones, as delineated in the contract.

SECTION VI: SCAQMD STAFF CONTACTS AND ADDITIONAL RESOURCES

The SCAQMD staff contacts are listed in Table 1 by project category. Copies of the Program Announcement, Application Forms and a sample SCAQMD CMP contract may be accessed at: www.aqmd.gov/moyer.

Table 1: CMP Staff Contacts

Project Category	Staff Contact	Phone Number	Email
On-Road Heavy-Duty Vehicles	Victor Juan Mei Wang	(909) 396-2374 (909) 396-3257	vjuan@aqmd.gov mwang@aqmd.gov
Off-Road Equipment	Walter Shen Ping Gui	(909) 396-2487 (909) 396-3187	wshen@aqmd.gov pgui@aqmd.gov
Cargo Handling Equipment Electrification	Greg Ushijima	(909) 396-3301	gushijima@aqmd.gov
Marine Vessels	Ping Gui	(909) 396-3187	pgui@aqmd.gov
Shore Power	Greg Ushijima	(909) 396-3301	gushijima@aqmd.gov
Locomotives	Greg Ushijima Walter Shen	(909) 396-3301 (909) 396-2487	gushijima@aqmd.gov wshen@aqmd.gov
Infrastructure	George Wu Mei Wang	(909) 396-2533 (909) 396-3257	gwu@aqmd.gov mwang@aqmd.gov



WEBSITE LINKS TO CARB RULES THAT AFFECT CMP ELIGIBILITY

On-Road Private (truck and bus) @ <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

Drayage Truck Regulatory @ <https://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm>

Public/Utility Fleets @ <http://www.arb.ca.gov/msprog/publicfleets/publicfleets.htm>

In-Use Off-Road @ <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>

Harbor Craft @ <http://www.arb.ca.gov/ports/marinevess/harborcraft.htm>

Cargo Handling Equipment @ <http://www.arb.ca.gov/ports/cargo/cargo.htm>

Shore Power @ <http://www.arb.ca.gov/ports/shorepower/shorepower.htm>



APPENDIX A

Table of Contents

SCAQMD encourages applicants to utilize the CMP Online Application Program to submit applications to the Year 21 CMP. The CMP Online Application Program is available at the SCAQMD CMP homepage at www.aqmd.gov/mover. If you choose to submit a paper application, please utilize the application forms and other documents identified below. Each document listed below is available on SCAQMD's CMP homepage for download.

1. Application Checklist – one per applicant.
2. Form A-1: General Application (includes Checklist and Application Statement). Provide a complete set of Form A-1 documents for each equipment category (i.e., locomotive, marine, off-road, etc.).
3. Category Application Form specific to your project category (one per unit, or use excel templates referenced in the form for multiple unit projects)
 - a) Form B-1: On-Road Heavy-Duty Vehicles, Replacement
 - b) Form B-2: On-Road Heavy-Duty Vehicles, Repower
 - c) Form B-3: Emergency Vehicles (Fire Apparatus)
 - d) Form C-1: Off-Road Equipment Replacement
 - e) Form C-2: Off-Road Equipment (Repower, Repower with Retrofit)
 - f) Form C-3: Off-Road Equipment Retrofit
 - g) Form C-4: Cargo Handling Equipment (CHE) Electrification
 - h) Form D-1: Marine Vessels, Repower
 - i) Form D-2: Marine Vessels, Shore Power
 - j) Form E-1 through E-3: Locomotives
 - Form E-1: Locomotive Replacement
 - Form E-2: US Engine Remanufacture Kit or Repower/Refurbishment
 - Form E-3: Head-end power (HEP) Unit
 - k) Form F-1: Infrastructure
4. Business Information Request Forms – complete, sign and submit all of these forms with your application.



APPLICATION CHECKLIST

Applicants are encouraged to submit their application using SCAQMD's online system. If you are applying in person, use this checklist to organize your paper copy application. Each of the following application sections is required to be submitted if you submit a paper application:

- ☐ A cover letter stating your funding request, how many pieces of equipment and/or engines included in the proposed project, and the funding amount being requested (per engine equipment/vehicle/vessel and for the total overall project). For applications covering more than one category, organize this information by project category (i.e., marine, locomotive, on-road, etc.)
- ☐ This Application Checklist (signed below).
- ☐ General Application Form A-1. Provide a separate Form A-1 for each category (i.e., marine, locomotive, etc.) for which funding is requested. Form A-1 also includes the Application Statement (signed and initialed, as applicable)
- ☐ Completed and **signed** Business Information Forms⁹
- ☐ Category Application Form specific to your project category (i.e., locomotive, off-road, marine, etc.), along with the following attachments/enclosures:
 - ☐ For multiple unit applications, applicants have the option to provide the information required by the applicable application form/category using an Excel spreadsheet.
 - ☐ Vendor quotes that have been obtained within 90 days prior to the application submittal date.
 - ☐ CARB Executive Orders for each engine. Download at (for the zero-emission vehicle or equipment, please provide a CARB's Approval Letter):
On-road: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>
Off-road: <http://www.arb.ca.gov/diesel/cv.htm>
 - ☐ Previous two years of historical records documenting equipment usage, retroactive to the date of application.

Once completed, submit the original plus three (3) complete signed copies of the application package (all forms and documents), as well as an electronic copy of the application and its supporting documents on a CD or flash drive, in accordance with the Application Submittal Instructions.

I understand that all documents, as listed above, are required in order to have a complete application package in order to be considered for funding under the Carl Moyer Program.

Signature

Date

⁹ These forms may be downloaded at: www.aqmd.gov/moyer.



Carl Moyer and SOON Application
Form A-1
General Application Form (page 1 of 3)

The SCAQMD is accepting applications for projects throughout its jurisdiction. All applications will be evaluated based on their cost-effectiveness and their disproportionate impact score as discussed in Section IV "Application Evaluation/ Contractor Selection Criteria" contained in Program Announcement. For additional information about SCAQMD's policies and application information, visit: www.aqmd.gov/moyer. In general, this program will follow CARB Carl Moyer Program guidelines, which are available at: <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

The submittal of an application does not guarantee approval for funding, but will be used to determine the potential emission reductions and eligible grant funding amount for the proposed project. Any equipment purchased prior to project approval by the SCAQMD Governing Board will not be eligible for funding. Applicant may, at their own risk, issue a purchase order for approved equipment prior to contract execution. Other than a purchase order, **no other work shall proceed** until a fully executed contract, i.e. signed by the applicant and SCAQMD Board Chairman and a pre-inspection, is completed.

Organization Information

Legal Name of Organization *

The legal organization name must be that of the legal equipment owner.

Organization Address

Mailing Address *

Street Address/P.O. Box

City *

State *

Zip *

County *

Primary Contact Name and Information

First Name

Last Name

Email Address
(A valid Email address is required. Eg. john@gmail.com)

Phone Number

Fax Number

Person Authorized to Sign Application and Execute Grant Agreement

First Name

Last Name

Email Address
(A valid Email address is required. Eg. john@gmail.com)

Phone Number

Fax Number

Third Party Information

Name of Person Who Completed the Application

What is Your Position?

How much are you being paid to complete this application for the owner or to assist in the proposed project?

What is the source of funds being used to pay you?

Signature of Third Party Person Who Completed the Application:

Date:



Carl Moyer and SOON Application Form A-1 General Application Form (page 2 of 3)

All information provided in this application will be used by SCAQMD staff to evaluate the eligibility of this application to receive program funds. SCAQMD staff reserves the right to request additional information and can deny the application if such requested information is not provided by the requested deadline. Incomplete or illegible applications will be returned to applicant or vendor, without evaluation. An incomplete application is an application that is missing information critical to the evaluation of the project.

Please read and check each item below to indicate understanding and agreement:

I understand that this application is for evaluation purposes only and does not guarantee project funding. Only a fully executed Grant Agreement between the equipment owner and the District constitutes an obligation to fund a project. ☐

I certify to the best of my knowledge and under penalty of perjury that the information contained in this application is true and accurate. ☐

I understand that all vehicles/equipment, both existing and new, must be made available within the SCAQMD boundaries for inspection, unless otherwise approved by SCAQMD's Project Officer. ☐

The vehicle/engine will be used within the SCAQMD boundaries (with the emission reduction system operating) for at least the projected usage shown in this application, and no less than 75 percent of the time. ☐

I understand that it is my responsibility to ensure that all technologies are either verified or certified by the California Air Resources Board (CARB) to reduce NOx and/or PM pollutants. CARB Verification Letters and/or Executive Orders are attached, as applicable. ☐

I understand that for repower projects, I am required to install the highest level available verified diesel emission control device (VDECS), and that the costs of this device and associated installation are a CMP eligible expense. These costs may be included in the project grant request up to the maximum cost-effectiveness limit. ☐

I understand that there may be conditions placed upon receiving a grant and agree to refund the grant (or pro-rated portion thereof) if it is found that at any time I do not meet those conditions and if directed by the SCAQMD in accordance with the contract agreement. ☐

I understand that, for this equipment, I am required to disclose if I have applied for or received incentive funding from another entity or program. Failure to do so will disqualify me from Carl Moyer Program Funding. ☐

In the event that the vehicle(s)/equipment do not complete the minimum term of any agreement eventually reached from this application, I agree to ensure the equivalent project emissions reductions, or to return grant funds to the SCAQMD as required by the contract. ☐

I understand that all on-road engines in my fleet that are eligible for a low-NOx software upgrade (reflash) must be reflashed within 60 days of receipt of contract execution. I may self-certify that the reflash has been performed by submitting a receipt of the completed reflash or a picture of the "Low NOx Reflash Label" from the reflashed engine to SCAQMD. ☐

I understand that third party contracts are not permitted. A third party may, however complete an application on an owner's behalf. Third parties are required to list how much compensation, if any, they are receiving to prepare the application(s), and to certify that no Carl Moyer Program funds are being used for this compensation. ☐

I understand that off-road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation (Off-Road Regulation) must submit information regarding fleet size and compliance status. This must include the Diesel Off-Road On-line Reporting System (DOORS) ID of the fleet and the DOORS Equipment Identification Number (EIN) of the funded equipment. ☐

I understand that additional project information may be requested during project review and must be submitted prior to final evaluation. ☐

I understand that all vehicles, engines or equipment funded by this program must be operational within eighteen (18) months of contract execution, or by the vehicle in service date as specified in the Statement of Work, whichever is earlier. ☐

All project applicants must submit documentation that supports the activity claimed in the application (i.e., fuel receipts, mileage logs and/or hour-meter readings covering the last two years). This documentation is attached. ☐

The grant contract language cannot be modified without the written consent of all parties. I have reviewed and accept the sample contract language. ☐

I understand that an IRS Form 1099 may be issued to me for incentive funds received under the Moyer Program. I understand that it is my ☐



Carl Moyer and SOON Application
Form A-1
General Application Form (page 3 of 3)

responsibility to determine the tax liability associated with participating in the Moyer Program.

I understand that an SCAQMD-funded Global Positioning System (GPS) unit will be installed on vehicles/equipment not operating within SCAQMD boundaries full time. I will submit data as requested and otherwise cooperate with all data reporting requirements. I also understand that the additional cost of the GPS unit will be added to the project cost when calculating cost-effectiveness, though the SCAQMD will pay for this system directly.

☐

I understand that the SCAQMD has the right to conduct unannounced inspections for the full project life to ensure the project equipment is fully operational at the activity level committed to by the contract.

☐

I understand that all emission reductions resulting from Carl Moyer funded projects will be retired and the Carl Moyer Program claims all emission reductions from its funded projects. I also understand that there is no double counting or splitting of emission reductions if I receive additional incentive funding.

☐

I understand that a tamper proof, non-resettable digital hour meter/odometer must be installed on all vehicles/equipment and that the digital hour meter/odometer will record the hours/miles accumulated within the SCAQMD boundaries. This cost is my responsibility.

☐

I understand that any tax credits claimed must be deducted from the CMP request.

☐

Please check one:

☐ I do not plan to claim a tax credit or deduction for costs funded by the CMP.

☐ I do plan to claim a tax credit or deduction for costs funded by the CMP.

If so please indicate amount here: \$

☐ I plan to claim a tax credit or deduction only for the portion of incremental costs not funded by the CMP.

If so please indicate amount here: \$

I have checked this box to indicate that there are no potential conflicts of interest with other clients affected by actions performed by the firm on behalf of SCAQMD. If I have not checked this box, I have attached a description to this application of the potential conflict of interest, which will be screened on a case-by-case basis by the SCAQMD District Counsel's Office.

☐

I understand and certify that I am currently in compliance with all federal, state and local air quality rules and regulations at the time of application submittal, and I am not aware of any outstanding or pending enforcement actions.



Please indicate the Total Funding Requested (for the entire project, including all equipment/vehicle replacements, repowers, etc.): \$

By signing below, I certify under penalty of perjury that the information provided in this application is accurate and true.

Please print the name of the signing authority (first and last name)

Signature of signing authority:

Please enter the application submission date:

APPLICATION CHECKLIST

Applicants are encouraged to submit their application using SCAQMD's online system. If you are applying in person, use this checklist to organize your paper copy application. Each of the following application sections is required to be submitted if you submit a paper application:

- ☐ A cover letter stating your grant request, how many pieces of equipment and/or engines included in the proposed project, and the funding amount being requested (per engine and for the total project). For applications covering more than one category, organize this information into project category (i.e., marine, locomotive, on-road, etc.)
- ☐ This Application Checklist (signed below).
- ☐ General Application Form A-1. Provide a separate Form A-1 for each category (i.e., marine, locomotive, etc.) for which grant funding is requested. Form A-1 also includes the following documents:
 - ☐ Application Statement (signed and initialed as applicable)
 - ☐ Completed and **signed** Business Information Forms¹
- ☐ Category Application Form specific to your project category (i.e., locomotive, off-road, marine, etc.), along with the following attachments/enclosures:
 - ☐ Optional Excel Worksheet associated with applicable application form/category (you may use this form for multiple unit projects, if desired)
 - ☐ Vendor quotes dated no earlier than 90 days prior to the date of application submittal
 - ☐ CARB Executive Orders for each engine. Download at:
 - On-road: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>
 - Off-road: <http://www.arb.ca.gov/diesel/cv.htm>
 - ☐ Previous two years of historical records documenting equipment usage, retroactive to the date of application.

Once completed, please submit one original plus three (3) complete signed copies of the application package (all forms and documents), as well as an electronic copy of the application and its supporting documents on a CD or flash drive.

I understand that all documents, as listed above, are required in order to have a complete application package in order to be considered for funding under the Carl Moyer Program.

Signature

Date

¹ These forms may be downloaded at: www.aqmd.gov/moyer



Carl Moyer Application Form B-1

On-Road Heavy-Duty Vehicle Replacement

If you have any questions regarding this program or the application process, please contact Victor Juan at (909) 396-2374, vjuan@aqmd.gov or Mei Wang at (909) 396-3257, mwang@aqmd.gov

Existing Vehicle Information

Registered Owner:

Does the vehicle have a clean title (no lienholder on the title)? ☒ Yes ☐ No

Is this a public vehicle? ☒ Yes ☐ No

Has this equipment received Carl Moyer Program funds in the past? ☒ Yes ☐ No

Is the vehicle location the same as the applicant address? ☒ Yes ☐ No

If not, provide vehicle domiciling address:

Provide the vocation of the vehicle:

Vehicle Identification Number
(VIN)

License Plate #

Vehicle Fleet/Unit Number (If
applicable)

Vehicle Model Year

Vehicle Make

Vehicle Gross Weight Rating
(GVWR)

Vehicle Model

Existing Engine Information

Engine Fuel Type

Engine Model

Engine Make

ARB Engine Family
Number

Engine Model Year

Engine Serial Number

Engine Executive Order
(EO) Number



Carl Moyer Application Form B-1 On-Road Heavy-Duty Vehicle Replacement

Project Information

ARB Fleet Regulation this vehicle is subject (Drayage, Truck and Bus Reg
Solid Waste Collection Vehicles, Public Fleet, Transit, etc.)

Provide TRUCRS ID Number or DTR number

Amount requested from SCAQMD for this vehicle (\$)

Total Vehicle/Project Cost (From Quote: must equal)

What is your current fleet size? (Should reflect all diesel fuel vehicles with
a GVWR greater than 14,000 lbs.)

If applicable did you register your fleet through ARB's TRUCRS Database by
January 31, 2019? A Compliance Certificate will be required if the fleet is
subject to Truck and Bus Reg.

☐ Yes ☐ No

Identify other funding sources to be used for this project

Applicant Co-Funding Amount

Operation Information

Percent operation in California (%)

Percent Operation in District (%)

SCAQMD District Boundaries

<http://www.aqmd.gov/home/about/jurisdiction>

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD
contract)

Maximum Project Life for On-Road Projects:

Replacements	7 years
Transit Bus Replacements	12 years
Repowers	7 Years
School Bus Replacements	10 Years
Electric Conversions	5 Years
Emergency Vehicles	14 Years
Other on-Road Projects	3 Years



Carl Moyer Application

Form B-1

On-Road Heavy-Duty Vehicle Replacement

Replacement Vehicle and Vendor Information

Replacement Vehicle Cost (including taxes)	Is this a public fleet vehicle? <input type="radio"/> Yes <input type="radio"/> No
Replacement Vehicle Make	Replacement Vehicle Model
Replacement Vehicle Model Year	Replacement Vehicle GVWR
Vendor	Vendor Contact Name
Vendor Address	Vendor Phone Number
Vendor City	Vendor State
Vendor Zip	

Replacement Engine Information

Engine Fuel Type	Engine Make
Engine Model	Engine Model Year
Engine Family Number	ARB Certification Executive Order (EO) Number (if zero-emission, attach ARB Approval Letter)

Download the EO at: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>

The proposed engine for the project must be consistent with the Intended Service Class per the EO (MHD Intended Service Class engines cannot be used for projects which have the HHD vehicle classifications). Applicant must ATTACH a copy of the referenced Executive Order with the application. Download the EO at: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>



Carl Moyer and SOON Application Form B-1

On-Road Heavy-Duty Vehicle Replacement Engine Activity Information

Please provide projected annual usage for the new equipment over the proposed life of the project. This projection should be based on actual usage data for the baseline, or existing, equipment. Applicants requesting evaluation based on fuel consumption MUST provide both mileage and fuel records from the past 24 months. Supporting documentation may be in the form of maintenance records, fuel receipts, logs, or other paperwork for each piece of baseline equipment covering at least the past 24 months. No such documentation is required for project evaluations based solely on mileage.

Activity Information

Existing Engine - Annual operation details for the past 24-months

March 2019 Mileage March 2018 Mileage March 2017 Mileage

Odometer Reading

Miles Travelled – List the cities/zip codes the vehicle typically travels:

--



Carl Moyer and SOON Application Form

B-1

On-Road Heavy-Duty Vehicle Replacement Attachments

The following attachments must be submitted for this proposal:

- Insurance Documentation (showing coverage from March 2017 through March 2019)
- Photo of the vehicle GVWR and VIN
- Photo of the engine model year, engine serial number and the engine family number
- Vehicle California DMV registration (showing continuous coverage from March 2017 through March 2019)
 - *For seasonal drivers: vehicle must have been registered in California for three to six continuous months per 12 month period for the previous 24 months.*
- Engine Executive Order(s) and Retrofit Device Executive Order(s) (For both the current and proposed new equipment)
- Quotes (must be within 90 days of application submittal and include applicable taxes and fees)
- Equipment Usage Documentation (for past 24 – months: must support the readings listed under activity Information)
- ARB Approval Letter (for Zero-Emission projects)
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form Direct
- Deposit Form
- Business Status Certification
- Certification of Debarment, Suspension and Other Responsibility Matters
- ARB's Compliance Certificate or Printout from Drayage Truck Registry with vehicle VIN listed
- Vehicle Title



Carl Moyer and SOON Application Form B-2 On-Road Heavy-Duty Equipment Repower Only : Vehicle Information

If you have any questions regarding this program or the application process, please contact Victor Juan at (909) 396-2374, vjuan@aqmd.gov or Mei Wang at (909) 396-3257, mwang@aqmd.gov

Existing Vehicle Information

Registered Owner

Has this equipment received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Is the vehicle location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address, please provide intersection) City

County State

Zip Vehicle Type

If other, please describe:

Vehicle Identification Number (VIN) Vehicle Make

Vehicle Model Vehicle Model Year

Gross Vehicle Weight Rating (GVWR) License Plate #

Unit Number



Carl Moyer and SOON Application Form B-2 On-Road Heavy-Duty Equipment Repower Only : Project Details

Name of California State Fleet Regulation this vehicle is subject to

Provide TRUCRS ID or DTR Number

Amount requested from SCAQMD for the project (includes all vehicles in proposal)

What is your current fleet size? (Should reflect all diesel fuel vehicles with a GVWR greater than 14,000 lbs.)

If applicable did you register your fleet through ARB's TRUCRS Database by January 31, 2019?

Yes

No

Total Funding Requested

Identify other funding sources to be used for this project:

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Percent operation in California (%)

Percent Operation in District (%)

SCAQMD District Boundaries <http://www.aqmd.gov/home/about/jurisdiction>

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)

Maximum Project Life for On-Road Projects

Replacements	7 years
Transit Bus Replacements	12 years
Repowers	7 Years
School Bus Replacements	10 years
Electric Conversions	5 years
Emergency Vehicles	14 years
Other On-Road Projects	3 years



Carl Moyer and SOON Application Form B-2 On-Road Heavy-Duty Equipment Repower Only : Engine Information

Baseline Engine Information

Engine Fuel Type	<input type="text"/>	Engine Model	<input type="text"/>
Engine Make	<input type="text"/>	Engine Serial Number	<input type="text"/>
Engine Model Year	<input type="text"/>	ARB Engine Family Number	<input type="text"/>

New Engine Information

New Engine Fuel Type	<input type="text"/>		
New Engine Make	<input type="text"/>	New Engine Model	<input type="text"/>
New Engine Model Year	<input type="text"/>		<input type="text"/>
New Engine ARB Engine Family Number	<input type="text"/>		

ARB Certification Executive Order (EO) Number
(If zero-emission, attach ARB Approval Letter)

Funding Information

New Engine Cost (Including Tax)	<input type="text"/>	New Engine Installation Cost	<input type="text"/>
Grant Request Amount for this Repower	<input type="text"/>		
Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Phone Number	<input type="text"/>	Vendor Address	<input type="text"/>
Vendor City	<input type="text"/>	Vendor State	<input type="text"/>
Vendor Zip	<input type="text"/>		

The proposed engine for the project must be consistent with the Intended Service Class per the EO (MHD Intended Service Class engines cannot be used for projects which have the HHD vehicle classifications). Applicant must ATTACH a copy of the referenced Executive Order with the application. Download the EO at: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>



Carl Moyer and SOON Application
Form B-2
On-Road Heavy-Duty Equipment
Repower Only : Engine Activity Information

Please provide projected annual usage for the new equipment over the proposed life of the project. This projection should be based on actual usage data for the baseline, or existing, equipment. Applicants requesting evaluation based on fuel consumption MUST provide both mileage and fuel records from the past 24 months. Supporting documentation may be in the form of maintenance records, fuel receipts, logs, or other paperwork for each piece of baseline equipment covering at least the past 24 months. No such documentation is required for project evaluations based solely on mileage.

Activity Information

Baseline Engine - Annual operation details for the past 24-months

	March 2019	March 2018	March 2017
Odometer Reading	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel Use (gallons/year)	<input type="text"/>	<input type="text"/>	<input type="text"/>

Mile Traveled - List the cities/ zip codes the vehicle typically travels:



Carl Moyer and SOON Application Form B-2

On-Road Heavy-Duty Equipment
Repower Only : Attachments

The following attachments must be submitted for this proposal:

- Insurance Documentation (showing coverage from March 2017 through March 2019)
- Photo of the vehicle GVWR and VIN
- Photo of the engine model year, engine serial number and the engine family number
- Vehicle California DMV registration (showing continuous coverage from March 2017 through March 2019)
 - *For seasonal drivers: vehicle must have been registered in California for three to six continuous months per 12 month period for the previous 24 months.*
- Engine Executive Order(s) and Retrofit Device Executive Order(s)(For both the current and proposed new equipment)
- Quotes (must be within 90 days of application submittal and include applicable taxes and fees)
- Equipment Usage Documentation (for past 24 – months: must support the readings listed under activity Information)
- ARB Approval Letter (for Zero-Emission projects)
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form Direct
- Deposit Form
- Business Status Certification Certification of Debarment, Suspension and
- Other Responsibility Matters
- ARB's Compliance Certificate or Printout from Drayage Truck Registry with vehicle VIN listed



Carl Moyer and SOON Application
Form B-3
On-Road Emergency Equipment (Fire Apparatus)
New Only : Equipment Information

If you have any questions regarding this program or the application process, please contact Victor Juan at (909) 396-2374, vjuan@aqmd.gov or Mei Wang at (909) 396-3257, mwang@aqmd.gov

Existing Vehicle Information

Registered Owner

Has this equipment received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Is the vehicle location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address, please provide intersection) City

County State

Zip Vehicle Type

If other, please describe:

Is the vehicle an Authorized Emergency Vehicle?
(Authorized emergency vehicles as described in the California Vehicle Code, sections 27156.2 and 1657 including, but not limited to pumpers, ladder trucks, and water tenders) ☐ Yes ☐ No

Proposed Project Life (in years)
This is the number of years that the equipment must operate as specified in your SCAQMD contract. (The maximum project life available for fire apparatus is 14 years and represents the average remaining useful life of the vehicle.)

Vehicle Identification Number (VIN) Vehicle Make

Vehicle Model Vehicle Model Year

Gross Vehicle Weight Rating (GVWR)

License Plate # Unit Number

I have attached proof of California registration for the past 24-months and a copy of the Title, proving ownership (without lien holder) for each project vehicle. ☐ Yes ☐ No

Is 2 to 1 Replacement Applied? ☐ Yes ☐ No

Replacement Vehicle and Vendor Information

New Vehicle Make New Vehicle Model

New Vehicle Model Year New Vehicle Cost

New Vehicle GVWR

Vendor Vendor Contact Name

Vendor Phone Number Vendor Address

Vendor City Vendor State



Carl Moyer and SOON Application

Form B-3

On-Road Emergency Equipment (Fire Apparatus)

New Only : Project Details

Describe type of apparatus:

Are the project vehicle(s) being submitted for funding under this category exempt from ARB Regulations?
Authorized emergency vehicle(s) are described under California Vehicle Code Sections 27156.2 and 165.

☐ Yes ☐ No

Is this a public fleet vehicle?

☐ Yes ☐ No

Grant Request Amount

Total Funding Requested

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Percent operation in California (%)

Percent Operation in District (%)



Carl Moyer and SOON Application
Form B-3
On-Road Emergency Equipment (Fire Apparatus)
New Only : Engine Information

Baseline Engine Information

Engine Fuel Type	<input type="text"/>	Engine Model	<input type="text"/>
Engine Make	<input type="text"/>	Engine Serial Number	<input type="text"/>
Engine Model Year	<input type="text"/>	ARB Engine Family Number	<input type="text"/>

ARB Certification Executive
Order (EO) Number
(if zero-emission, attach
ARB Approval Letter)

Download the EO at: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>

New Engine Information

Engine Fuel Type	<input type="text"/>	Engine Model	<input type="text"/>
Engine Make	<input type="text"/>		
Engine Model Year	<input type="text"/>		
ARB Engine Family Number	<input type="text"/>	ARB Certification Executive Order (EO) Number (if zero-emission, attach ARB Approval Letter)	<input type="text"/>

The proposed engine for the project must be consistent with the Intended Service Class per the EO (MHD Intended Service Class engines cannot be used for projects which have the HHD vehicle classifications). Applicant must ATTACH a copy of the referenced Executive Order with the application. Download the EO at: <http://www.arb.ca.gov/msprog/onroad/cert/cert.php>



Carl Moyer and SOON Application
Form B-3
On-Road Emergency Equipment (Fire Apparatus)
New Only : Engine Activity Information

Please provide projected annual usage for the new equipment over the proposed life of the project. This projection should be based on actual usage data for the baseline, or existing, equipment. Applicants requesting evaluation based on fuel consumption MUST provide both mileage and fuel records from the past 24 months. Supporting documentation may be in the form of maintenance records, fuel receipts, logs, or other paperwork for each piece of baseline equipment covering at least the past 24 months. No such documentation is required for project evaluations based solely on mileage.

Activity Information

Baseline Engine - Annual operation details for the past 24-months. If fuel based evaluation you must also provide mileage.

	March 2019	March 2018	March 2017	Estimated Annual Future Usage
Odometer Reading	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel Use (gallons/year)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application Form B-3

On-Road Emergency Equipment (Fire Apparatus)
New Only : Attachments

The following attachments may be submitted for this proposal:

- Vehicle Registration
- Vehicle Title
- Equipment Usage Documentation (for past 24 – months: must support the readings listed under activity Information)
- ARB Approval Letter (for Zero-Emission)
- Fuel/Mileage Logs
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 days of application submittal)
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Miscellaneous Documents
- Business Status Certification
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer and SOON Application Form C-1 Off-Road Equipment Replacement Equipment Information (page 1 of 2)

If you have any questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at wshen@aqmd.gov.

Large Off-Road Fleets have limited eligibility for Carl Moyer Program funding, but may apply for SOON Program funding using this application. For more information, please visit www.aqmd.gov/SOON.

Please complete ONE (1) Form for each piece of equipment.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past? ☐ Yes ☐ No

For Large Fleets Only - have you received Carl Moyer funding after January 1, 2017? ☐ Yes ☐ No

What is the primary function of this equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address, provide intersection) City

County State

Zip Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make Equipment Model

Equipment Model Year Equipment Serial Number or VIN

Unit Number or EIN# (for non-Ag Operations)

Is 2 to 1 Replacement Applied? ☐ Yes ☐ No

Number of Main Engines Number of Auxiliary Engines

Is this equipment used in Agricultural operations? ☐ Yes ☐ No

What percentage of equipment operations are in Agriculture?



Carl Moyer and SOON Application Form C-1

Off-Road Equipment Replacement Equipment Information (page 2 of 2)

New Equipment and Vendor Information

Unit Number	<input type="text"/>	Equipment Category	<input type="text"/>
Equipment Type	<input type="text"/>		
If other equipment type, please describe <input type="text"/>			
Equipment Make	<input type="text"/>	Equipment Model	<input type="text"/>
Equipment Model Year	<input type="text"/>		
Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Phone Number	<input type="text"/>	Vendor Address	<input type="text"/>
Vendor City	<input type="text"/>	State	<input type="text"/>
Vendor Zip	<input type="text"/>		

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Number of engines for this New Equipment Unit:

Main (Front) Engine(s)	<input type="text"/>	Auxiliary (Rear) Engine(s)	<input type="text"/>
New Replacement Unit Cost \$	<input type="text"/>	Tax \$	<input type="text"/>
Total Cost for this Replacement \$	<input type="text"/>	Applicant Co-Funding Amount (If Any) \$	<input type="text"/>
Applicant Grant Request (If Any) \$	<input type="text"/>		



Carl Moyer and SOON Application

Form C-1

Off-Road Equipment Replacement

Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested (for this Replacement ONLY)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

Note: See <http://www.aqmd.gov/home/about/jurisdiction> for a jurisdiction map.

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application
Form C-1
Off-Road Equipment Replacement
Engine Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type ☐ Main ☐ Auxiliary

Baseline Engine Fuel Type

Baseline Engine Make

Baseline Engine Model

Baseline Engine Model Year

Baseline Engine Serial Number

Baseline Engine Horsepower

Baseline Engine Family Number

Old Engine (Baseline) Emissions Tier

New Engine Information

New Engine Fuel Type

New Engine Make

New Engine Model

New Engine Model Year

New Engine Serial Number

New Engine Horsepower

New Engine Family Number

New Engine (Reduced) Emissions Tier



Carl Moyer and SOON Application
Form C-1
Off-Road Equipment Replacement
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for the past 24-months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application
Form C-1
Off-Road Equipment Replacement
Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24 – months including, but not limited to, maintenance records, hour meter readings)
- Photo showing the baseline engine (old) engine model year, engine serial #, HP, engine family # (if available)
- Equipment Ownership (Bill of Sale)
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>)
- only for applicants applying for SOON funding (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot including vehicle list
- Business Information Request Form
- Campaign Contribution Disclosure
- Business Status Cert
- W-9 Form
- Direct Deposit Form
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer and SOON Application

Form C-2

Off-Road Equipment Repower Equipment Information

If you have any questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at: wshen@aqmd.gov

Large Off-Road Fleets have limited eligibility for Carl Moyer Program funding, but may apply for SOON Program funding using this application. For more information, please visit www.aqmd.gov/SOON.

Please complete ONE (1) form for each piece of equipment.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past?

☐ Yes ☐ No

For Large Fleets Only - have you received Carl Moyer funding after January 1, 2017?

☐ Yes ☐ No

What is the primary
function of this
equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below.

☐ Yes ☐ No

Street Address (if no address,
provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make

Equipment Model

Equipment Model Year

Equipment Serial
Number or VIN

Unit Number or EIN# (for non-
Ag Operations)

Number of Main
Engines

Number of Auxiliary
Engines

Is this equipment
used in Agricultural operations?

☐ Yes ☐ No



Carl Moyer and SOON Application Form C-2 Off-Road Equipment Repower Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested (including Retrofit cost, if applicable)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE - incl. Retrofit if applicable)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application Form C-2 Off-Road Equipment Repower Engine Information (page 1 of 2)

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type ☐ Main ☐ Auxiliary

Baseline Engine Fuel Type

Baseline Engine Make

Baseline Engine Model

Baseline Engine Model Year

Baseline Engine Serial Number

Baseline Engine Horsepower

Baseline Engine Family Number

Old Engine (Baseline) Emissions Tier

Method proposed for rendering the baseline engine(s) inoperable

New Engine Information

New Engine Fuel Type

New Engine Make

New Engine Model

New Engine Model Year

New Engine Serial Number

New Engine Horsepower

New Engine Family Number

New Engine (Reduced) Emissions Tier

Is the New Engine a Family Emissions Limit (FEL) engine? ☐ Yes ☐ No

New Engine Cost Information

New Engine Unit Cost

Cost of Installation/Labor

Cost of New Engine Tax

Total Cost of Repower

Applicant Co-Funding Amount (if any)

Grant Request Amount for this Repower

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

New Engine Vendor Information

Vendor

Vendor Contact Name

Vendor Phone Number

Vendor Address

Vendor City

Vendor State

Vendor Zip



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Engine Information (page 2 of 2)

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Engine Retrofit Information

Will a retrofit device be added to this engine as part of this project?

☒ Yes ☐ No

Retrofit Device Make

Retrofit Device Model

% PM Reduction

% NOX Reduction

% ROG Reduction

Retrofit Device ARB Executive
Order Number

Project Life

Retrofit Cost Information

Retrofit Device System Cost

Retrofit Device Installation
Cost

Total Cost of Retrofit

Amount requested for this
retrofit \$



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for the past 24-months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application
Form C-2
Off-Road Equipment Repower
Attachment

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 day of application submittal)
- Equipment Usage Documentation (for past 24 – months including, but not limited to, maintenance records, hour meter readings)
- Photo showing the baseline (old) engine model year, engine serial #, horsepower, engine family # (if available)
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>)
- only for applicants applying for SOON funding (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot - including vehicle list
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Certification
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer and SOON Application Form C-3 Off-Road Equipment Retrofit Equipment Information

If you have questions regarding this program or the application process, please contact Walter Shen by phone at (909) 396-2487 or by email at: wshen@aqmd.gov.

Existing Equipment Information

Are you applying under Carl Moyer Program OR the Surplus Off-Road NOx Program?

Has this equipment received Carl Moyer Program funds in the past?

☐ Yes ☐ No

What is the primary
function of this
equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below.

☐ Yes ☐ No

Street Address (if no
address, provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make

Equipment Model

Equipment Model Year

Equipment Serial
Number or VIN

Unit Number

Number of Main
Engines

Number of Auxiliary
Engines

Is this equipment
used in Agricultural operations?

☐ Yes ☐ No



Carl Moyer and SOON Application Form C-3 Off-Road Equipment Retrofit Project Details

Is equipment currently subject to CARB's Off-Road Regulation?

☐ Yes ☐ No

What is the total horsepower of all vehicles in the fleet?

Enter DOORS Fleet Number

All Off-Road equipment applicants subject to CARB's In-Use Off-Road Diesel Vehicle Regulation must submit their DOORS fleet compliance snapshot and fleet vehicle list.

You may contact the DOORS hotline at (877) 593-6677 for assistance.

SOON applications must also submit the fleet average calculation. Please visit <https://arb.ca.gov/msprog/ordiesel/fac.htm> for more information.

Total Funding Requested

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment?

Does this vehicle have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Percent Operation in California

Percent Operation in District

See <http://www.aqmd.gov/home/about/jurisdiction> for a jurisdiction map.

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer and SOON Application
Form C-3
Off-Road Equipment Retrofit
Engine & Retrofit Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary		
Baseline Engine Fuel Type	<input type="text"/>		
Baseline Engine Make	<input type="text"/>	Baseline Engine Model	<input type="text"/>
Baseline Engine Model Year	<input type="text"/>	Baseline Engine Serial Number	<input type="text"/>
Baseline Engine Horsepower	<input type="text"/>	Baseline Engine Family Number	<input type="text"/>
Old Engine (Baseline) Emissions Tier	<input type="text"/>		

Engine Retrofit Information

Retrofit Device Make	<input type="text"/>	Retrofit Device Model	<input type="text"/>
Verification Level	<input type="text"/>	Project Life	<input type="text"/>
Verified % PM Reduction	<input type="text"/>	Verified % NOX Reduction	<input type="text"/>
Verified % ROG Reduction	<input type="text"/>	Retrofit Device ARB Executive Order Number	<input type="text"/>
Retrofit Device Serial Number	<input type="text"/>		

Retrofit Cost Information

Retrofit Device System Cost	<input type="text"/>	Retrofit Device Installation Cost	<input type="text"/>
Tax Amount for Retrofit	<input type="text"/>	Total Cost of Retrofit	<input type="text"/>
Maintenance Cost	<input type="text"/>	Amount requested for this retrofit	<input type="text"/>
Retrofit Dealer Vendor	<input type="text"/>		

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application. The data-logging cost of a retrofit project cannot be included in the eligible project cost.



Carl Moyer and SOON Application
Form C-3
Off-Road Equipment Retrofit
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for past 24 months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer and SOON Application Form C-3 Off-Road Equipment Retrofit Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24 – months)
- Other misc. attachments
- DOORS Vehicle List
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>) (only if applying under SOON Program)
- DOORS Fleet Compliance Snapshot
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Business Status Certification
- Direct Deposit Form
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer Program Application Form C-4 Off-Road Cargo Handling Equipment Electrification : Equipment Information

If you have any questions regarding this program or the application process, please contact Greg Ushijima by phone at (909) 396-3301 or by email at: gushijima@aqmd.gov.

Please complete ONE form for each piece of equipment.

Existing Equipment Information

Has this equipment received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Is equipment currently subject to CARB's Cargo Handling Equipment regulation?

Note: If you are unable to document that project equipment is not subject to the CARB regulation, then the project is ineligible. ☐ Yes ☐ No

What is the primary
function of
this equipment?

Is the vehicle location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address,
provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Project Type

Equipment Category

Equipment Type

If other equipment type, please describe

Equipment Make

Equipment Model

Equipment Model Year

Equipment Serial
Number or VIN

Unit Number



Carl Moyer and SOON Application Form C-4

Off-Road Cargo Handling Equipment Electrification : Project Details

Total Funding Requested

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Is existing equipment in operable condition?

☐ Yes ☐ No

How many years has the applicant owned the existing equipment (must be greater than 2 years)?

Does the existing equipment have a functioning, non-resettable hour meter?

☐ Yes ☐ No

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)

Please provide a full description of the proposed project. Include specifications for the equipment electrification and associated infrastructure. *SEE ATTACHMENTS*



Carl Moyer and SOON Application Form C-4

Off-Road Cargo Handling Equipment Electrification : Engine & Retrofit Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Baseline Engine Type	<input type="radio"/> Main	<input type="radio"/> Auxiliary	
Baseline Engine Fuel Type	<input type="text"/>		
Baseline Engine Make	<input type="text"/>	Baseline Engine Model	<input type="text"/>
Baseline Engine Model Year	<input type="text"/>	Baseline Engine Serial Number	<input type="text"/>
Baseline Engine Horsepower	<input type="text"/>	Baseline Engine Family Number	<input type="text"/>
Old Engine (Baseline) Emissions Tier	<input type="text"/>		

Please provide a full description of the proposed project. Include specifications for the equipment electrification and associated infrastructure. *SEE ATTACHMENTS*

Electrification Vendor /Contractor Information

Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Phone Number	<input type="text"/>	Vendor Address	<input type="text"/>
Vendor City	<input type="text"/>	Vendor State	<input type="text"/>
Vendor Zip	<input type="text"/>		

Retrofit Cost Information

Total Project Materials Cost	<input type="text"/>	Total Project Labor Cost	<input type="text"/>
Total Project Cost	<input type="text"/>		
Applicant Co-Funding Amount (If any)	<input type="text"/>	Grant Request Amount	<input type="text"/>

Funding/Cost Information for this Electrification Project - You MUST attach a written estimate from the equipment vendor/contractor documenting the cost of the device; this quote must be obtained within 90 days prior to the closing date of the Program Announcement. Quote must itemize material costs and labor costs separately and must provide explanatory details on each line item. *SEE ATTACHMENTS*



Carl Moyer and SOON Application Form C-4

Off-Road Cargo Handling Equipment Electrification : Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Baseline Engine - Annual operation details for the past 24 months

	Jan - Date of Application Submittal 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage*
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

*Please note: Estimated annual usage is only necessary if actual usage is not known. Approved projects will require the applicant to meet the estimated annual usage for the duration of the contract.



Carl Moyer and SOON Application Form C-4

Off-Road Cargo Handling Equipment Electrification :
Attachments

The following attachments must be submitted for this proposal:

- CARB's Cargo Handling Equipment Regulation
- DOORS Vehicle List
- SOON Fleet Average Calculation (please go to <https://arb.ca.gov/msprog/ordiesel/fac.htm>)
- Project Description
- Written Estimate for Project
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Certification
- Certification of Debarment, Suspension and Other Responsibility Matters
- Photo of Equipment, Equipment Tag, Current Hour Meter and Engine Tag



Carl Moyer Program Application

Form D-1

Marine Vessels

Repower : Equipment Information

If you have any questions regarding this program or the application process, please contact Ping Gui at (909) 396-3187 or pgui@aqmd.gov.

All Commercial Harbor Craft are currently subject to CARB's Commercial Harbor Craft regulation. Attach a copy of your most recent CARB Commercial Harbor Craft Initial Report, and all updates.

Existing Equipment Information

Has this equipment received Carl Moyer Program funds in the past?

☐ Yes ☐ No

Contract #	<input type="text"/>	Amount Received	<input type="text"/>
Vessel Name	<input type="text"/>	Port/Harbor	<input type="text"/>
Terminal	<input type="text"/>	Pier	<input type="text"/>

Physical Address of the Vessel (including City, State, Zip)

Vessel berth/slip number	<input type="text"/>	Primary Vessel Use	<input type="text"/>
--------------------------	----------------------	--------------------	----------------------

If other vessel type, please describe

Secondary Vessel Use	<input type="text"/>
----------------------	----------------------

If other secondary vessel type, please describe

Primary Vessel Hours per Year	<input type="text"/>	Secondary Vessel Hours per Year	<input type="text"/>
Vessel Make	<input type="text"/>	Vessel Model	<input type="text"/>
Vessel Model Year	<input type="text"/>		
Total number of main engines on the vessel	<input type="text"/>	Total number of aux engines on the vessel	<input type="text"/>

U.S. Coast Guard Documentation Number (IMO Lloyd's Number if oceangoing vessel, or CF# AND CA Department of Fish & Game license for fishing vessels manufactured out of the United States or less than five net tons displacement)

Does the project vessel utilize a wet exhaust system?

☐ Yes ☐ No



Carl Moyer Program Application

Form D-1

Marine Vessels

Repower : Project Details

Total Funding Requested (for Engine Repower(s) on This Marine Vessel)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Percent Operation in California

Percent Operation in District

Note: For SCAQMD Marine Jurisdiction Map, please see next page.

Purchasing new transmission (if applicable)

☐ Yes ☐ No

Justification For Purchasing
New Transmission

New Transmission Cost

Electronic Monitoring Unit: I understand that a new Electronic Monitoring Unit (EMU) will be installed as part of this Project. (This is a program requirement.)

☐ Yes ☐ No

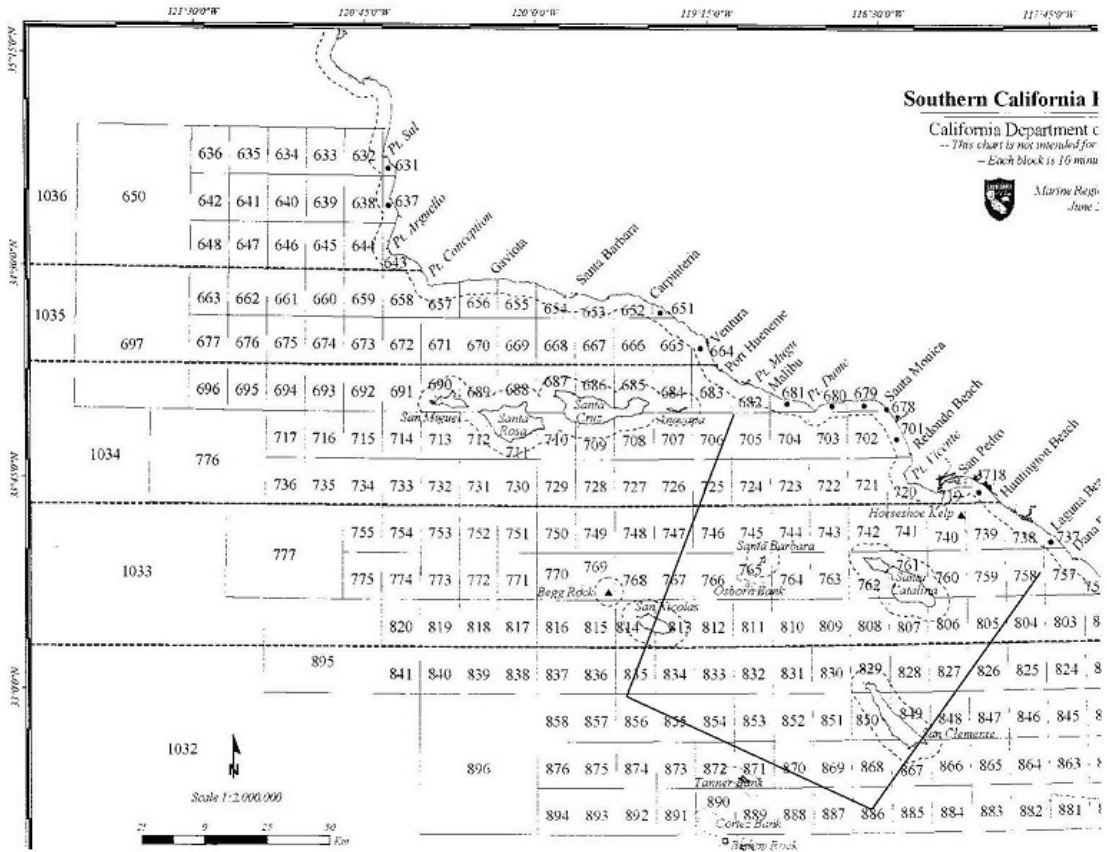
The vessel is required to have a functioning non-resettable hour meter for the full project life. Select YES to indicate understanding and compliance:

☐ Yes ☐ No

Proposed Project Life (this is the number of years that the vessel must operate as specified in your SCAQMD contract)



Carl Moyer Program Application
Form D-1
Marine Vessels
Reporer : SCAQMD Boundary Lines



Boundary points for the Box:

Southern Coastal Boundary - San Diego - Orange County Border
Northern Coastal Boundary - Ventura - Los Angeles County Border

Northern Tip: 33° N and 119° 30' W
Southern Tip: 32° 30' N and 118° 30' W

Distance between northern coastal point and northern tip: 80 miles approx.
Distance between southern coastal point and southern tip: 74 miles approx.



Carl Moyer Program Application
Form D-1
Marine Vessels
Repower : Engine Information

If you have more than one engine for your marine vessel, please make copies of this page and use one form for each engine.

Existing/Baseline Engine Information

Engine Fuel Type	<input type="text"/>	Old Engine (Baseline) Emissions Tier	<input type="text"/>
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>	Engine Horsepower	<input type="text"/>
Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary	Engine Serial Number	<input type="text"/>
EPA Engine Family Number	<input type="text"/>	Method proposed for rendering the replaced engine inoperable:	<input type="text"/>
Number of Cylinders	<input type="text"/>	Liters	<input type="text"/>
Does the existing engine have a functioning hour meter?		<input type="radio"/> Yes <input type="radio"/> No	

New Reduced-Emission Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>	Engine Horsepower	<input type="text"/>
Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary	Engine Serial Number	<input type="text"/>
EPA Engine Family Number	<input type="text"/>		
Emissions Tier Type	<input type="radio"/> Off Road <input type="radio"/> Marine		
New Engine (Reduced) Emissions Tier	<input type="text"/>		
Number of Cylinders	<input type="text"/>	Liters	<input type="text"/>
New Engine Cost (Including Tax)	<input type="text"/>	New Engine Installation/Labor Cost	<input type="text"/>

NOTE: You MUST attach a written estimate or quotation from the equipment vendor documenting the cost of the new equipment. This quote must be obtained within 90 days prior to the closing date of the Program Announcement. The quote must indicate the certification level of the new, replacement engine (i.e., Tier 3 or cleaner).

Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Address	<input type="text"/>	Vendor City	<input type="text"/>
Vendor Zip	<input type="text"/>	Vendor State	<input type="text"/>
Vendor Phone Number	<input type="text"/>		



Carl Moyer Program Application
Form D-1
Marine Vessels
Repower : Engine Activity Information

If you have more than one engine for your marine vessel, please make copies of this page and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Activity Information

Engine Specific Usage - Annual Operation Details for the Past 24-months

	Jan - Date of Application Submittal in 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Hours	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer Program Application Form D-1

Marine Vessels

Repower : Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Harbor Craft Regulation Initial Report
- Quotes (must be within 90 days of application submittal) Equipment Usage
- Documentation (for past 24 – months)
- Other Miscellaneous Attachments (optional and as required by the project officer)
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Cert
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer Program Application Form D-2 Marine Vessels Shore Power : Equipment Information

If you have any questions regarding this program or the application process, please contact Greg Ushijima by phone at (909) 396-3301 or by email at: gushijima@aqmd.gov. Please complete one form for each Shore Power project.

Type of Project

Please note that if you are applying for the Purchase of Transformer and Associated Infrastructure ("Shore Side"), please use the Infrastructure application.

Vessel Retrofit to
Accept Electrical
Power
("Ship-Side")

Type Of Applicant

Existing Equipment Information

Complete one equipment section for each vessel to be retrofitted. For transformer only projects please provide a detailed description of the vessels that typically use this terminal.

If your vessel type is a refrigerated cargo ship, container-ship or passenger ship, please attach your Vessel Plan as required by the ARB shore power regulation: <http://www.arb.ca.gov/ports/shorepower/shorepower.htm>

Vessel Name

Port/Harbor

Terminal

Pier

Vessel berth/slip
number

Primary Vessel
Function

If other vessel type, please describe

Vessel Make

Vessel Model

Vessel Model Year

Total number of
main engines on
the vessel

Total number of
aux engines on the
vessel

Lloyds Register or
IMO Ship ID

US Coast Guard
Documentation
Number

If you are leasing the terminal, what is the time left on the current lease?

Average berthing time (hours) of the vessel, per visit (include time needed to connect and disconnect the vessel to shore power)

Vessel power (kW) requirements while at berth Average Power Requirement

Vessel power (kW) requirements while at berth Maximum Power Requirement



Carl Moyer Program Application
Form D-2
Marine Vessels
Shore Power : Project Details

Total Funding Requested	<input type="text"/>
Total number of vessels in the fleet	<input type="text"/>
Identify other funding sources to be used for this project	<input type="text"/>
Total Project Cost (From Quote: MUST EQUAL QUOTE)	<input type="text"/>
Applicant Co-Funding Amount	<input type="text"/>
Identify other potential project partners (ex. Port)	<input type="text"/>
Power supplier (ex. PG&E)	<input type="text"/>
Where does the electrical power infrastructure begin, and end? *	<input type="text"/>

Operation Information

Total number of annual vessel visits expected to use shore power	<input type="text"/>
Total number of annual visits to the terminal	<input type="text"/>
Total number of annual hours of usage for vessels expecting to use shorepower	<input type="text"/>

Project Funding Information

You **MUST** attach a written estimate from the equipment vendor documenting the cost of the device; this quote must be obtained within 90 days prior to the closing date of the Program Announcement. **See Attachments Section.**

Transformer Project Cost	<input type="text"/>	Associated Infrastructure Cost	<input type="text"/>
Retrofit Equip. Cost (incl. tax)	<input type="text"/>	Retrofit Equip. Installation Cost	<input type="text"/>
Total Project Costs	<input type="text"/>		

You **MUST** attach a detailed written estimate/quote from the equipment vendor for the cost of the equipment and labor.

REQUEST: MAXIMUM ALLOWABLE

- ☐ Shore Power Vessel Retrofit ("ship-side"): 100% of retrofit cost & 50% of transformer cost.

REQUEST : OTHER

☐

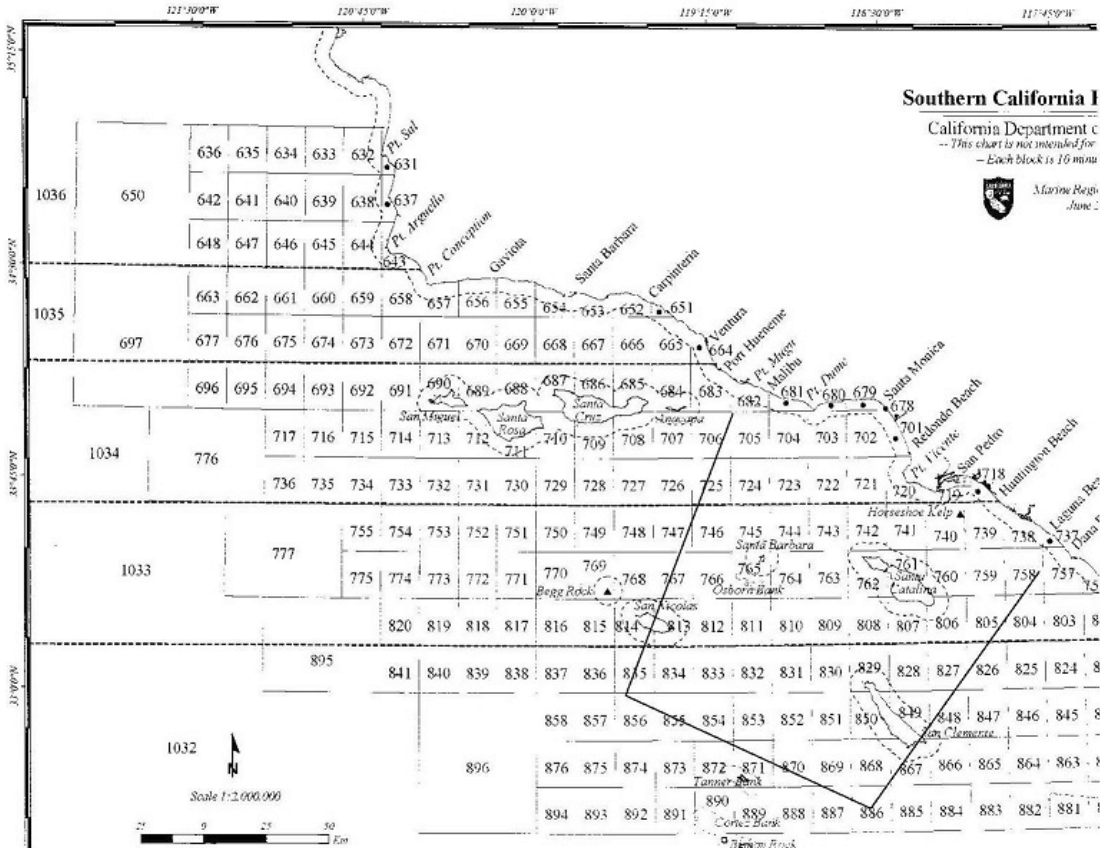
(You may request less than the maximum allowable funding amount to improve cost-effectiveness of your project.)

Anticipated Project Completion Date

Please attach a detailed project schedule. **SEE ATTACHMENTS PAGE**



Carl Moyer Program Application
Form D-2
Marine Vessels
Shore Power : SCAQMD Boundary Lines



Boundary points for the Box:

Southern Coastal Boundary - San Diego - Orange County Border
Northern Coastal Boundary - Ventura - Los Angeles County Border

Northern Tip: 33° N and 119° 30' W
Southern Tip: 32° 30' N and 118° 30' W

Distance between northern coastal point and northern tip: 80 miles approx.
Distance between southern coastal point and southern tip: 74 miles approx.



Carl Moyer Program Application
Form D-2
Marine Vessels
Shore Power : Engine Information

Existing/Baseline Engine Information

Please attach a detailed description of the vessels that will be using the shore power equipment. This description should include:

- Vessel type
- Ship size (in 20-foot equivalent units (TEU) capacity)
- Number and type of engines
- Power demand (total auxiliary power (kW) – not hotelling load)
- The number of auxiliary engines typically operating while at berth per vessel
- Number of annual visits
- Average berthing time (hours) of the vessel, per visit (include time needed to connect and disconnect the vessel to shore power). Be sure to consider the maximum time the auxiliary engines are in use.



Carl Moyer Program Application
Form D-2
Marine Vessels
Shore Power : Engine Activity Information

If you have more than one engine for your project, please make copies of this page and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Activity Information

Expected annual hours

Expected annual fuel use

"Current Berth Activity" Number of annual ship visits to the berth (attach the log of vessel visits for each of the specified years): For last 3 years

Last Year Vessel Visits

Prior Year Vessel Visits

2 Years Prior Year Vessel Visits

Predicted (Future) Berth Activity:

Estimated annual ship visits using shore power:

2019

2020 and beyond

Estimated monthly hours of operation:

2019

2020 and beyond

Estimated monthly megawatt (MW) usage:

2019

2020 and beyond



Carl Moyer Program Application
Form D-2
Marine Vessels
Shore Power : Attachments

The following attachments must be submitted for this application:

- Detailed Project Proposal
- Other Miscellaneous Attachments (optional and as required by the project officer)
- ARB Shore Power Vessel Plan
- Vessel Logs
- Vessel Activity Information
- Written Estimate Or Quote
- Proposed Project Schedule
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Certification Form
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer Program Application Form E-1 Locomotive Replacement Equipment Information

For project criteria please refer to the locomotive chapter in the Carl Moyer Program Guidelines. If you have any questions regarding this program or the application process, please contact Greg Ushijima by phone at (909) 396-3301 or by email at: gushijima@aqmd.gov.

If you have more than one equipment for your project, please make copies of this form and use one form for each equipment.

Existing Locomotive Information

Has this locomotive received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Equipment Location Address

Is the equipment location address the same as the applicant address? If not, please complete section below ☐ Yes ☐ No

Street Address

If no address, provide intersection

City

County

State

Zip

Vehicle Type

If other, please describe:

Locomotive type

Locomotive Make

Locomotive Model

Locomotive Model Year

Locomotive Serial Number

Unit number or other identifier

New Locomotive Information

Locomotive Make

Locomotive Model

Locomotive Model Year

Equipment Type

Locomotive Serial Number (If Available)

Will the locomotive have a functioning idle limit device (ILD) installed?

☐ Yes ☐ No

If other equipment type, please describe

of Main Engines

of Auxiliary Engines

New Locomotive Cost (\$)

Locomotive Vendor Name

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.



Carl Moyer Program Application Form E-1 Locomotive Replacement Project Details

Railroad Class

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Total Funding Requested (California G75E A 8)

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Future/Projected Locomotive Activity Annual Fuel Usage (gallons per year)

If fuel usage is not available, please provide the future/projected locomotive activity in Megawatt Hour (MWh) per year.

Percent Operation in California

Percent Operation in District

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer Program Application Form E-1 Locomotive Replacement Engine Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>	Engine Serial Number	<input type="text"/>
Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary	Engine Horsepower	<input type="text"/>
Existing Engine (Baseline) Emissions Tier	<input type="text"/>		
Baseline Engine Family	<input type="text"/>	US EPA Certificate of Conformity No	<input type="text"/>
CARB Executive Order No	<input type="text"/>		

US EPA Certificate of Conformity MUST BE ATTACHED – SEE ATTACHMENTS SECTION

CARB Executive Order MUST BE ATTACHED – SEE ATTACHMENTS SECTION

Reduced Emission Replacement Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>		
Engine Serial Number	<input type="text"/>	Engine Horsepower	<input type="text"/>
EPA Engine Family Name	<input type="text"/>	New Engine (Reduced) Emissions Tier	<input type="text"/>
Engine Cost	<input type="text"/>	Installation Cost	<input type="text"/>
Has this engine been certified by U.S. EPA?	<input type="radio"/> Yes <input type="radio"/> No	U.S. EPA certified locomotive NOx emission rate (g/bhp-hr)	<input type="text"/>
U.S. EPA certified locomotive HC emission rate (g/bhp-hr)	<input type="text"/>	U.S. EPA certified locomotive PM emission rate (g/bhp-hr)	<input type="text"/>



Carl Moyer Program Application
Form E-1
Locomotive Replacement
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Please attach documentation to support the reported usage per year.

Annual Fuel Usage - Annual Operation Details for the Past 24-months

	Jan - Date of Application Submittal in 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Fuel Use (gallons/year)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If fuel usage is not available, please attach documentation of the megawatt hours used during the previous 24 months.



**Carl Moyer Program Application
Form E-1**
Locomotive Replacement
Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Emissions certification documentation
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24-months)
- Other Miscellaneous Attachments (optional and as required by the project officer)
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Fuel Documentation
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Direct Deposit Form
- Business Status Cert
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer Program Application

Form E-2

Locomotive Engine Repower Equipment Information

For project criteria please refer to the locomotive chapter in the Carl Moyer Program Guidelines.

If you have any questions regarding this program or the application process, please contact Greg Ushijima by phone at (909) 396-3301 or by email at gushijima@aqmd.gov.

If you have more than one equipment for your project, please make copies of this form and use one form for each equipment.

Existing Locomotive Information

Has this locomotive received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Equipment Location Address

Is the equipment location address the same as the applicant address? If not, complete below: ☐ Yes ☐ No

Street Address (if no address,
provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Locomotive type

If other locomotive type, please describe

Locomotive Make

Locomotive Model

Locomotive Model Year

Locomotive Serial
Number

Unit number or
other identifier



Carl Moyer Program Application

Form E-2

Locomotive Engine Repower

Project Details

Railroad Class

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Total Funding Requested from SCAQMD

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Percent Operation in California

Percent Operation in District

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract):



Carl Moyer Program Application

Form E-2

Locomotive Engine Repower

Engine Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>	Engine Serial Number	<input type="text"/>
Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary	Engine Horsepower	<input type="text"/>
Existing Engine (Baseline) Emissions Tier	<input type="text"/>		
Baseline Engine Family	<input type="text"/>	US EPA Certificate of Conformity No	<input type="text"/>
CARB Executive Order No	<input type="text"/>		

US EPA Certificate of Conformity MUST BE ATTACHED – SEE ATTACHMENTS SECTION

CARB Executive Order MUST BE ATTACHED – SEE ATTACHMENTS SECTION

New Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>		
Engine Serial Number	<input type="text"/>	Engine Horsepower	<input type="text"/>
EPA Engine Family Name	<input type="text"/>	U.S. EPA Certified Locomotive Emission Level	<input type="text"/>
Engine Cost	<input type="text"/>	Installation Cost	<input type="text"/>

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Vendor Information

Vendor	<input type="text"/>	Vendor Contact Name	<input type="text"/>
Vendor Address	<input type="text"/>	Vendor City	<input type="text"/>
Vendor Zip	<input type="text"/>	Vendor State	<input type="text"/>
Vendor Phone Number	<input type="text"/>		



Carl Moyer Program Application
Form E-2
Locomotive Engine Repower
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date

Please attach documentation to support the reported gallons per year

Annual Fuel Usage - Annual Operational Details for the Past 24-months

	Jan - Date of Application Submittal in 2019	Jan - Dec 2018	Mar - Dec 2017	Estimated Annual Future Usage
Fuel Use (gallons/year)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Carl Moyer Program Application
Form E-2
Locomotive Engine Repower
Attachments

The following attachments must be submitted for this application:

- Insurance Documentation
- Emissions certification documentation
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24-months)
- Other Miscellaneous Attachments (optional and as required by project officer)
- Engine Executive Order(s) and Retrofit Device Executive Order(s)
- Fuel Documentation
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Business Status Cert
- Direct Deposit Form
- Certification of Debarment, Suspension and Other Responsibility Matters



Carl Moyer Program Application

Form E-3

Locomotive - Head End Power Unit

Equipment Information

For project criteria please refer to the locomotive chapter in the Carl Moyer Program Guidelines.

If you have any questions regarding this program or the application process, please contact Greg Ushijima by phone at (909) 396-3301 or by email at: gushijima@aqmd.gov.

If you have more than one equipment for your project, please make copies of this form and use one form for each equipment.

Existing Locomotive Information

Has this locomotive received Carl Moyer Program funds in the past? ☐ Yes ☐ No

Equipment Location Address

Is the equipment location address the same as the applicant address? If not, please complete below. ☐ Yes ☐ No

Street Address (if no address, provide intersection)

City

County

State

Zip

Vehicle Type

If other, please describe:

Locomotive Make

Locomotive Model

Locomotive Model Year

Locomotive Serial Number

Unit number or other identifier



Carl Moyer Program Application

Form E-3

Locomotive - Head End Power Unit

Project Details

Railroad Class

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.

Total Funding Requested from the SCAQMD

Identify other funding sources to be used for this project

Total Project Cost (From Quote: MUST EQUAL QUOTE)

Applicant Co-Funding Amount

Operation Information

Percent Operation in California

Percent Operation in District

Proposed Project Life (this is the number of years that the equipment must operate as specified in your SCAQMD contract)



Carl Moyer Program Application
Form E-3
Locomotive - Head End Power Unit
Engine Activity Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Project application must include documentation of existing equipment usage for the previous 24 months prior to the application date.

Please attach documentation to support the reported gallons per year.

Annual Fuel Usage

Contact the SCAQMD Staff Lead to discuss your project and appropriate assumptions for this projection:

	Jan - Date of Application Submittal in 2019	Jan - Dec 2018	Mar - Dec 2017	Annual Fuel Usage (gallons per year)
Fuel Use (gallons/year)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If fuel usage is not available, please attach documentation of the megawatt hours used during the previous 24 months.

ADDITIONAL PROJECT INFORMATION: Please provide a full description of the proposed project. Include an explanation of any project elements that are not adequately covered in the Application. SEE ATTACHMENTS PAGE.



Carl Moyer Program Application
Form E-3
Locomotive - Head End Power Unit
Engine Information

If you have more than one engine for your project, please make copies of this form and use one form for each engine.

Existing/Baseline Engine Information

Engine Fuel Type	<input type="text"/>		
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>	Engine Serial Number	<input type="text"/>
Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary	Engine Horsepower	<input type="text"/>
Existing Engine (Baseline) Emissions Tier	<input type="text"/>		
Baseline Engine Family	<input type="text"/>	US EPA Certificate of Conformity No	<input type="text"/>
CARB Executive Order No	<input type="text"/>		
Is the engine certified to off road or locomotive standards?		<input type="radio"/> Off Road <input type="radio"/> Locomotive	

CARB Executive Order MUST BE ATTACHED – SEE ATTACHMENTS SECTION

US EPA Certificate of Conformity MUST BE ATTACHED – SEE ATTACHMENTS SECTION

Reduced Emission Replacement Engine Information

Engine Fuel Type	<input type="text"/>	Engine Type	<input type="radio"/> Main <input type="radio"/> Auxiliary
Engine Make	<input type="text"/>	Engine Model	<input type="text"/>
Engine Model Year	<input type="text"/>		
Engine Serial Number	<input type="text"/>	Engine Horsepower	<input type="text"/>
EPA Engine Family Name	<input type="text"/>	New Engine (Reduced) Emissions Tier	<input type="text"/>
Engine Cost	<input type="text"/>		
Does this Engine Have a US EPA Certificate of Conformity (PLEASE ATTACH THE CERTIFICATE IN THE ATTACHMENTS SECTION)	<input type="radio"/> Yes <input type="radio"/> No	U.S. EPA certified locomotive NOx emission rate (g/bhp-hr)	<input type="text"/>
U.S. EPA certified locomotive HC emission rate (g/bhp-hr)	<input type="text"/>	U.S. EPA certified locomotive PM emission rate (g/bhp-hr)	<input type="text"/>
Does this engine have a CARB Executive Order?	<input type="radio"/> Yes <input type="radio"/> No	CARB Executive Order Number	<input type="text"/>

All cost estimates must be based on quotes that have been obtained within 90 days prior to the closing date of the Program Announcement. Attach all quotes to the application.



Carl Moyer Program Application Form E-3

Locomotive - Head End Power Unit
Attachments

The following attachments must be submitted for this application:

- Additional Project Information (optional and as required by the project officer)
- US EPA Certificate of Conformity
- Insurance Documentation
- Emissions certification documentation
- Quotes (must be within 90 days of application submittal)
- Equipment Usage Documentation (for past 24-months)
- Other Miscellaneous Attachments (optional and as required by the project officer)
- Business Information Request Form
- Campaign Contribution Disclosure
- W-9 Form
- Business Status Cert
- Direct Deposit Form
- Certification Regarding Debarment, Suspension, and other Responsibility Matters



Carl Moyer Program – Application for Infrastructure

If you have any questions regarding this program or the application process, please contact George Wu by phone at (909) 396-2533 or by email at: gwu@aqmd.gov. Information on the eligible projects and cost for the program can be obtained from Carl Moyer Program Guidelines, Volume 1 Chapter 10¹.

Part 1: Applicant Information

Applicant Name:	Business Name:
Phone Number:	Email:
Address:	
City:	Zip Code:
Is the project location the same as the applicant address? <input type="checkbox"/> Yes <input type="checkbox"/> No (If not, please provide project location address below): Street Address: _____ City: _____ Zip Code: _____	

Part 2: Infrastructure Project Information

Eligible infrastructure projects are those that provide fuel or power to Carl Moyer Program (CMP) eligible vehicles and equipment (i.e., no light-duty vehicle charging stations). Note that a vehicle or equipment application is not required in order to be considered for infrastructure funding. Eligible projects include, but are not limited to, battery charging stations, alternative fuel stations, stationary agricultural stations and shore-side shore power projects.

Eligible costs are limited to the purchase and installation of the equipment for power delivery or fueling directly related to the infrastructure project and must utilize commercially available technologies. Eligible project costs include:

- Cost of design and engineering (i.e., labor, site preparation, Americans with Disabilities Act accessibility, signage).
- Cost of equipment (e.g., charging/fueling units, parts for electrical upgrade, energy storage equipment, materials).
- Cost of insulation directly related to the construction of the station.
- Meter/data loggers.
- On-site power generation system that fuels or powers covered sources (i.e., solar and wind power generation equipment).

Table 1. Maximum Percentage of Eligible Cost for Moyer Program Infrastructure Projects

Maximum Percentage of Eligible Cost	Infrastructure Projects
50%	All Projects
60%	Publicly Accessible Projects
65%	Projects with Solar/Wind Power Systems ²
75%	Publicly Accessible Projects with Solar/Wind Power Systems ²
100%	Public School Buses- Battery Charging and Alternative Fueling



¹ https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_chapter_10.pdf

² At least 50 percent of the energy provided to covered sources by the project must be generated from solar or wind.

Project Type:

☐ Battery Charging Station (e.g. airport, distribution centers, warehouses, ports)

Number of charging units _____

☐ New Station

☐ Expansion of existing non-residential charging stations to add capacity ☐ Other

☐ Alternative Fuel Station

Number of dispensers _____ dual hose ☐ Yes ☐ No

☐ Hydrogen / ☐ Natural Gas / ☐ Renewable Natural Gas

☐ New Station

☐ Expansion of existing fueling stations

☐ Other

☐ Stationary Agricultural Pump (Pump Electrification)

☐ Shore Power (Shore-Side Electrification)

Shore-side electrification for projects not subject to CARB's Shore Power Regulation. Only a port authority, terminal operator, or marine vessel owner may apply.

☐ Infrastructure for Transport Refrigeration Unit

Number of plugs _____

☐ Truck Stop Electrification

Please select the following if applicable:

Publicly Accessible Project ☐ Yes ☐ No

Solar/Wind Power System ☐ Yes ☐ No

☐ Public School Buses -Battery Charger or Alternative Fuel



Project Description

Please fully describe your project below including, but not limited to:

- A. Annual usage projection such as expected usage- in kWhr per month, standard cubic feet natural gas per month, kg Hydrogen per month.*
- B. Technical specification, including a complete listing of all infrastructure equipment, hardware, and components, including (as applicable) component manufacturer and model number if known. In addition, the specification must provide minimum fuel storage capacities, compression and dispenser ratings, as well as number, make, and model of dispensers, hoses and card readers, etc. if known.*
- C. Chargers must be certified by a nationally recognized testing laboratory (i.e., Underwriter's Laboratories, Intertek) and provide design specifications including voltage, amperage, wattage, efficiency, compressor size, number of dispensers,, number of fuel nozzles or charge connections, dispensing rate, storage capacity, etc. D. An estimate of the annual connections to the chargers and average connection time.*
- E. For stations expanding to accommodate new load, provide information on the base load and justify the need for and amount of the new load that is needed to accommodate the growth in vehicles or equipment using the infrastructure.*
- F. Fleet commitment information, including number of vehicles/equipment planning to fuel or power at the new infrastructure, including the engine model year and certification level of each vehicle.*
- G. A site plan depicting the infrastructure location, including at a minimum the adjacent streets, entrance and exit locations, locations of dispenser islands or chargers, canopies, fuel storage tanks, compressors, walls and/or spill containment areas as appropriate.*
- H. A description of other project elements, including site amenities such as private access/public access islands, card reader payment options, overhead canopies, signage, traffic circulation plan, landscaping, fencing, security lighting, etc.*

Project Description (Attach extra pages as necessary):



Part 4: Project Cost and Funding Request

All cost estimates must be based on quotes/bids. A minimum of two quotes/bids from licensed installers for the project is required. In addition, the applicant should summarize their solicitation and selection process (i.e., how will the winning bidder be selected by the applicant) in an attachment.

Attach all quotes/bids to the application. Provide the name of the vendor for the costs listed below.

Design and Engineering Cost \$_____ Vendor _____

Total Equipment Cost \$_____ Vendor _____

Installation Cost \$_____ Vendor _____

Other Cost \$_____ Vendor _____

For other costs, please describe and provide the cost for each item:

Total Cost \$_____ (From Quote: MUST EQUAL QUOTE)

Applicant Grant Request (total grant funds requested for the project): \$_____

Proposed Project Life: _____

This is the number of years that the equipment must operate as specified in your SCAQMD contract (must be at least 3 years and no longer than 15 years, subject to CMP Guidelines).

Part 5: Disclosure of Amounts of Other Funding

Applicant must disclose all sources of funding (private, local, other State, Federal funding sources, etc.) for the project at the time of application.

Name of Funding Entity:	Program Description:	Funding Amount:	Status (<i>Planned, Application Submitted or Application Granted</i>):
<i>(Example: EPA)</i>	<i>(DERA)</i>	<i>(\$25,000)</i>	<i>(Application Submitted)</i>

Supporting documentation:

Please identify and label all attached documents on the top of the page.

- Quotes/bids (At least two quotes/bids from licensed installers)
- Local Permits Obtained for the Project (if not yet obtained, please submit a plan)
- Land Ownership/Lease agreement (applicants must document that they either own the land on which the project will be located, or control it through a long-term lease for the duration of the project life)
- Documentation that sufficient power or fuel is being provided to the site (e.g. application, payment to the local utility company for power installation, or contract)
- Project Timeline/Schedule/Plan



- If public access, provide aerial map (i.e. Satellite view from an internet based map or city/county map)
- For Shorepower projects, provide the “Initial Terminal Plan”



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Business Information Request

Dear SCAQMD Contractor/Supplier:

South Coast Air Quality Management District (SCAQMD) is committed to ensuring that our contractor/supplier records are current and accurate. If your firm is selected for award of a purchase order or contract, it is imperative that the information requested herein be supplied in a timely manner to facilitate payment of invoices. In order to process your payments, we need the enclosed information regarding your account. **Please review and complete the information identified on the following pages, remember to sign all documents for our files, and return them as soon as possible to the address below:**

**Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178**

If you do not return this information, we will not be able to establish you as a vendor. This will delay any payments and would still necessitate your submittal of the enclosed information to our Accounting department before payment could be initiated. Completion of this document and enclosed forms would ensure that your payments are processed timely and accurately.

If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain
Deputy Executive Officer
Finance

DH:tm

Enclosures: Business Information Request
Disadvantaged Business Certification
W-9
Form 590 Withholding Exemption Certificate
Federal Contract Debarment Certification
Campaign Contributions Disclosure
Direct Deposit Authorization



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> Other _____

REMITTING ADDRESS INFORMATION

Address			
City/Town			
State/Province		Zip	
Phone	() - Ext	Fax	() -
Contact		Title	
E-mail Address			
Payment Name if Different			

All invoices must reference the corresponding Purchase Order Number(s)/Contract Number(s) if applicable and mailed to:

**Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178**

BUSINESS STATUS CERTIFICATIONS

Federal guidance for utilization of disadvantaged business enterprises allows a vendor to be deemed a small business enterprise (SBE), minority business enterprise (MBE) or women business enterprise (WBE) if it meets the criteria below.

- is certified by the Small Business Administration or
- is certified by a state or federal agency or
- is an independent MBE(s) or WBE(s) business concern which is at least 51 percent owned and controlled by minority group member(s) who are citizens of the United States.

Statements of certification:

As a prime contractor to SCAQMD, (name of business) will engage in good faith efforts to achieve the fair share in accordance with 40 CFR Section 33.301, and will follow the six affirmative steps listed below **for contracts or purchase orders funded in whole or in part by federal grants and contracts.**

1. Place qualified SBEs, MBEs, and WBEs on solicitation lists.
2. Assure that SBEs, MBEs, and WBEs are solicited whenever possible.
3. When economically feasible, divide total requirements into small tasks or quantities to permit greater participation by SBEs, MBEs, and WBEs.
4. Establish delivery schedules, if possible, to encourage participation by SBEs, MBEs, and WBEs.
5. Use services of Small Business Administration, Minority Business Development Agency of the Department of Commerce, and/or any agency authorized as a clearinghouse for SBEs, MBEs, and WBEs.
6. If subcontracts are to be let, take the above affirmative steps.

Self-Certification Verification: Also for use in awarding additional points, as applicable, in accordance with SCAQMD Procurement Policy and Procedure:

Check all that apply:

- | | |
|---|--|
| <input type="checkbox"/> Small Business Enterprise/Small Business Joint Venture | <input type="checkbox"/> Women-owned Business Enterprise |
| <input type="checkbox"/> Local business | <input type="checkbox"/> Disabled Veteran-owned Business Enterprise/DVBE Joint Venture |
| <input type="checkbox"/> Minority-owned Business Enterprise | <input type="checkbox"/> Most Favored Customer Pricing Certification |

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____

State of California Public Works Contractor Registration No. _____ MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.

I, the undersigned, hereby declare that to the best of my knowledge the above information is accurate. Upon penalty of perjury, I certify information submitted is factual.

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

Disabled Veteran-Owned Business Enterprise means a business that meets all of the following criteria:

- is a sole proprietorship or partnership of which is at least 51 percent owned by one or more disabled veterans, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
- the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- is a sole proprietorship, corporation, partnership, or joint venture with its primary headquarters office located in the United States and which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

Joint Venture means that one party to the joint venture is a DVBE and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that DVBE will receive at least 51 percent of the project dollars.

Local Business means a business that meets all of the following criteria:

- has an ongoing business within the boundary of SCAQMD at the time of bid application.
- performs 90 percent of the work within SCAQMD's jurisdiction.

Minority-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more minority persons or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minority persons.
- is a business whose management and daily business operations are controlled or owned by one or more minority person.
- is a business which is a sole proprietorship, corporation, partnership, joint venture, an association, or a cooperative with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

"Minority" person means a Black American, Hispanic American, Native American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian American (including a person whose origins are from India, Pakistan, or Bangladesh), Asian-Pacific American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, or Taiwan).

Small Business Enterprise means a business that meets the following criteria:

- a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
 - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or**
 - A manufacturer with 100 or fewer employees.
- b. Manufacturer means a business that is both of the following:
 - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
 - 2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

Small Business Joint Venture means that one party to the joint venture is a Small Business and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that the Small Business will receive at least 51 percent of the project dollars.

Women-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more women or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women.
- is a business whose management and daily business operations are controlled or owned by one or more women.
- is a business which is a sole proprietorship, corporation, partnership, or a joint venture, with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

Most Favored Customer as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.



CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b).

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than \$250 while their contract or permit is pending before SCAQMD; and further prohibits a campaign contribution from being made for three (3) months following the date of the final decision by the Governing Board or the MSRC on a donor's contract or permit. Gov't Code §84308(d). For purposes of reaching the \$250 limit, the campaign contributions of the bidder or contractor plus contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

In addition, SCAQMD Board Members or members/alternates of the MSRC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than \$250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC. Gov't Code §84308(c).

The list of current SCAQMD Governing Board Members can be found at SCAQMD website (www.aqmd.gov). The list of current MSRC members/alternates can be found at the MSRC website (<http://www.cleantransportationfunding.org>).

SECTION I.

Contractor (Legal Name): _____

DBA, Name _____, County Filed in _____

Corporation, ID No. _____

LLC/LLP, ID No. _____

List any parent, subsidiaries, or otherwise affiliated business entities of Contractor:
(See definition below).

SECTION II.

Has Contractor and/or any parent, subsidiary, or affiliated company, or agent thereof, made a campaign contribution(s) totaling \$250 or more in the aggregate to a current member of the South Coast Air Quality Management Governing Board or member/alternate of the MSRC in the 12 months preceding the date of execution of this disclosure?

☐ Yes ☐ No **If YES, complete Section II below and then sign and date the form.
If NO, sign and date below. Include this form with your submittal.**

Campaign Contributions Disclosure, continued:

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

_____	_____	_____
Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

DEFINITIONS

Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)

- (1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.
- (2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:
 - (A) One business entity has a controlling ownership interest in the other business entity.
 - (B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:
 - (i) The same person or substantially the same person owns and manages the two entities;
 - (ii) There are common or commingled funds or assets;
 - (iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
 - (iv) There is otherwise a regular and close working relationship between the entities; or
 - (C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

☐ I am unable to certify to the above statements. My explanation is attached.

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
	6 City, state, and ZIP code	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number											
				-				-			
or											
Employer identification number											
				-							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

2018 Withholding Exemption Certificate**590**

The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.

Withholding Agent Information

Name _____

Payee Information

Name _____

☐ SSN or ITIN ☐ FEIN ☐ CA Corp no. ☐ CA SOS file no.

Address (apt./sta., room, PO box, or PMB no.) _____

City (if you have a foreign address, see instructions.) _____

State _____

ZIP code _____

Exemption Reason**Check only one box.**

By checking the appropriate box below, the payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

☐ **Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Corporations:**

The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Partnerships or Limited Liability Companies (LLCs):**

The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

☐ **Tax-Exempt Entities:**

The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

☐ **Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**

The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

☐ **California Trusts:**

At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.

☐ **Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.

☐ **Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.To learn about your privacy rights, how we may use your information, and the consequences for not providing the requested information, go to ftb.ca.gov/forms and search for 1131. To request this notice by mail, call 800.852.5711.

Under penalties of perjury, I declare that I have examined the information on this form, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. I further declare under penalties of perjury that if the facts upon which this form are based change, I will promptly notify the withholding agent.

Type or print payee's name and title _____ Telephone (____) _____

Payee's signature ► _____ Date _____

2017 Instructions for Form 590

Withholding Exemption Certificate

References in these instructions are to the California Revenue and Taxation Code (R&TC).

General Information

Registered Domestic Partners (RDP) – For purposes of California income tax, references to a spouse, husband, or wife also refer to a Registered Domestic Partner (RDP) unless otherwise specified. For more information on RDPs, get FTB Pub. 737, Tax Information for Registered Domestic Partners.

A Purpose

Use Form 590, Withholding Exemption Certificate, to certify an exemption from nonresident withholding.

Form 590 does not apply to payments of backup withholding. For more information, go to ftb.ca.gov and search for **backup withholding**.

Form 590 does not apply to payments for wages to employees. Wage withholding is administered by the California Employment Development Department (EDD). For more information, go to edd.ca.gov or call 888.745.3886.

Do not use Form 590 to certify an exemption from withholding if you are a **Seller of California real estate**. Sellers of California real estate use Form 593-C, Real Estate Withholding Certificate, to claim an exemption from the real estate withholding requirement.

The following are excluded from withholding and completing this form:

- The United States and any of its agencies or instrumentalities.
- A state, a possession of the United States, the District of Columbia, or any of its political subdivisions or instrumentalities.
- A foreign government or any of its political subdivisions, agencies, or instrumentalities.

B Income Subject to Withholding

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California.

Withholding is required on the following, but is not limited to:

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.
- Payments to nonresidents for royalties from activities sourced to California.

- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

However, withholding is optional if the total payments of California source income are \$1,500 or less during the calendar year.

For more information on withholding get FTB Pub. 1017, Resident and Nonresident Withholding Guidelines. To get a withholding publication, see Additional Information.

C Who Certifies this Form

Form 590 is certified by the payee. California residents or entities exempt from the withholding requirement should complete Form 590 and submit it to the withholding agent before payment is made. The withholding agent is then relieved of the withholding requirements if the agent relies in good faith on a completed and signed Form 590 unless notified by the Franchise Tax Board (FTB) that the form should not be relied upon.

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN). The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies, and provide it upon request to the FTB.

If an entertainer (or the entertainer's business entity) is paid for a performance, the entertainer's information must be provided. **Do not** submit the entertainer's agent or promoter information.

The grantor of a grantor trust shall be treated as the payee for withholding purposes. Therefore, if the payee is a grantor trust and one or more of the grantors is a nonresident, withholding is required. If all of the grantors on the trust are residents, no withholding is required. Resident grantors can check the box on Form 590 labeled "Individuals — Certification of Residency."

D Definitions

For California nonwage withholding purposes, **nonresident** includes all of the following:

- Individuals who are not residents of California.
- Corporations not qualified through the California Secretary of State (CA SOS) to do business in California or having no permanent place of business in California.
- Partnerships or limited liability companies (LLCs) with no permanent place of business in California.
- Any trust without a resident grantor, beneficiary, or trustee, or estates where the decedent was not a California resident.

Foreign refers to non-U.S.

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information, get FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:

A corporation has a permanent place of business in California if it is organized and existing under the laws of California or it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. If a military servicemember and nonmilitary spouse have the same state of domicile, the MSRRA provides:

- A spouse shall not be deemed to have lost a residence or domicile in any state solely by reason of being absent to be with the servicemember serving in compliance with military orders.
- A spouse shall not be deemed to have acquired a residence or domicile in any other state solely by reason of being there to be with the servicemember serving in compliance with military orders.

Domicile is defined as the one place:

- Where you maintain a true, fixed, and permanent home.
- To which you intend to return whenever you are absent.

A military servicemember's nonmilitary spouse is considered a nonresident for tax purposes if the servicemember and spouse have the same domicile outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders.

California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRRA.

Income of a military servicemember's nonmilitary spouse for services performed in California is not California source income subject to state tax if the spouse is in California to be with the servicemember serving in compliance with military orders, and the servicemember and spouse have the same domicile in a state other than California.

For additional information or assistance in determining whether the applicant meets the MSRRRA requirements, get FTB Pub. 1032.

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

Enter the payee's information, including the TIN and check the appropriate TIN box.

You must provide a valid TIN as requested on this form. The following are acceptable TINs: social security number (SSN); individual taxpayer identification number (ITIN); federal employer identification number (FEIN); California corporation number (CA Corp no.); or CA SOS file number.

Private Mail Box (PMB) – Include the PMB in the address field. Write "PMB" first, then the box number. Example: 111 Main Street PMB 123.

Foreign Address – Follow the country's practice for entering the city, county, province, state, country, and postal code, as applicable, in the appropriate boxes. **Do not** abbreviate the country name.

Exemption Reason – Check the box that reflects the reason why the payee is exempt from the California income tax withholding requirement.

Withholding Agent Instructions

Do not send this form to the FTB. The withholding agent retains this form for a minimum of five years or until the payee's status changes, and must provide this form to the FTB upon request.

The payee must notify the withholding agent if any of the following situations occur:

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.

- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, and Form 592-V, Payment Voucher for Resident and Nonresident Withholding.

Additional Information

Website: For more information go to ftb.ca.gov and search for **nonwage**.

MyFTB offers secure online tax account information and services. For more information and to register, go to ftb.ca.gov and search for **myftb**.

Telephone: 888.792.4900 or 916.845.4900, Withholding Services and Compliance phone service

Fax: 916.845.9512

Mail: WITHHOLDING SERVICES AND COMPLIANCE MS F182
FRANCHISE TAX BOARD
PO BOX 942867
SACRAMENTO CA 94267-0651

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the TTY/TDD numbers, see the information below.

Internet and Telephone Assistance

Website: ftb.ca.gov

Telephone: 800.852.5711 from within the United States
916.845.6500 from outside the United States

TTY/TDD: 800.822.6268 for persons with hearing or speech impairments

Asistencia Por Internet y Teléfono

Sitio web: ftb.ca.gov

Teléfono: 800.852.5711 dentro de los Estados Unidos
916.845.6500 fuera de los Estados Unidos

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o de habla



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- | | |
|--|--|
| <input type="checkbox"/> Individual (Employee, Governing Board Member) | <input type="checkbox"/> New Request |
| <input type="checkbox"/> Vendor/Contractor | <input type="checkbox"/> Cancel Direct Deposit |
| <input type="checkbox"/> Changed Information | |

STEP 2: Payee Information

Last Name		First Name		Middle Initial	Title
Vendor/Contractor Business Name (if applicable)					
Address				Apartment or P.O. Box Number	
City		State	Zip	Country	
Taxpayer ID Number		Telephone Number		Email Address	

Authorization

- I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by SCAQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to SCAQMD for distribution. This will delay my payment.
- This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
- I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

STEP 3:

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

To be Completed by your Bank

Staple Voided Check Here	Name of Bank/Institution		
	Account Holder Name(s)		
	<input type="checkbox"/> Saving <input type="checkbox"/> Checking	Account Number	Routing Number
	Bank Representative Printed Name	Bank Representative Signature	Date
	ACCOUNT HOLDER SIGNATURE:		Date

For SCAQMD Use Only

Input By _____

Date _____

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 5

PROPOSAL: Approve SCAQMD Annual Investment Policy and Delegation of Authority to Appointed Treasurer to Invest SCAQMD Funds

SYNOPSIS: State law requires a local government entity annually to provide a statement of investment policy for consideration at a public meeting and to renew its delegation of authority to its treasurer to invest or to reinvest funds of the local agency. This action is to approve the Annual Investment Policy and the Resolution to renew delegation of authority to the Los Angeles County Treasurer to invest and reinvest SCAQMD funds.

COMMITTEE: Investment Oversight, February 15, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve the attached Annual Investment Policy, and
2. Adopt the attached Resolution to renew delegation of authority to the Los Angeles County Treasurer to invest and reinvest SCAQMD funds.

Wayne Nastri
Executive Officer

SJ:tm

Background

The California Government Code requires that a statement of investment policy be transmitted annually to the Oversight Committee and legislative body of a local agency for consideration at a public meeting. In addition, state law (Government Code Section 53607) requires that a local agency's legislative body annually renew its delegation of authority to its Treasurer to invest or to reinvest funds of the local agency.

Board action on April 12, 1996 approved a recommendation to minimize SCAQMD investments in the Los Angeles County Pooled Surplus Investment Portfolio (PSIP), by directing staff to work with the Los Angeles County Treasurer (SCAQMD's Treasurer) to make specific investments on behalf of SCAQMD. This change required the development of an annual statement of investment policy specific for SCAQMD.

SCAQMD's investment consultant, working with staff and the Los Angeles County Treasurer's office, developed the attached statement of investment policy. This policy, which is reviewed annually for possible changes, sets forth the investment guidelines for SCAQMD with the objective of ensuring that funds are prudently invested to preserve principal and provide necessary liquidity while earning a market average rate of return.

Proposal

The Investment Policy was substantially revised in 2013, including updating credit requirements, revising maturity limits, and clarifying diversification guidelines. Minor updates have been made since that time to ensure compliance with changes to the California Government Code. There are two revisions being recommended for the Investment Policy, which include: 1) a minor change to Negotiable Certificates of Investment under Permitted Investment—change the negotiable CDs rating category to “A-1/A” or its equivalent, or higher, by at least one NRSRO; and 2) a change to the language in Mortgage Securities or Asset-backed Securities to read, “All asset-backed securities must be rated in a rating category of “AA” or its equivalent or better rating and the issuer’s corporate debt rating must be in a rating category of “A” or its equivalent or better by a Nationally Recognized Statistical Rating Organization (NRSRO).”

The County of Los Angeles has provided excellent treasury management services to the SCAQMD since inception of the District. These services include providing banking services, processing electronic payments to SCAQMD, and the investment of the SCAQMD's cash balances. Staff is recommending that the SCAQMD continue with the services provided by the Los Angeles County Treasurer.

Resource Impacts

Costs associated with SCAQMD treasury management operations are included in the FY 2018-19 Budget and will be included in the FY 2019-20 Budget.

Attachments

1. SCAQMD Annual Investment Policy
2. Resolution - Delegation of Authority to Appoint L.A. County Treasurer

South Coast Air Quality Management District Annual

Investment Policy

I. PURPOSE

This Annual Investment Policy (the “Policy”) sets forth the investment guidelines for all general, special revenue, trust, agency and enterprise funds of the South Coast Air Quality Management District (SCAQMD). The objective of this Policy is to ensure all of SCAQMD’s funds are prudently invested to preserve principal and provide necessary liquidity, while earning a market average rate of return.

SCAQMD funds deposited with the Los Angeles County Treasurer may only be invested in the Los Angeles County Pooled Surplus Investment Portfolio or in Special Purpose Investments as authorized by this Policy. The SCAQMD Annual Investment Policy conforms to the California Government Code (the Code) as well as customary standards of prudent investment management. Irrespective of these Policy provisions, should the provisions of the Code be or become more restrictive than those contained herein, such provisions will be considered immediately incorporated in this Policy and adhered to.

II. SCOPE

It is intended that this Policy cover all funds (except those funds invested in the two retirement systems covering SCAQMD employees and 457 deferred compensation plan funds) and investment activities under the direction of the SCAQMD and deposited with the Los Angeles County Treasurer.

The investment of bond proceeds will be governed by state law and the permitted investment provisions of relevant bond documents.

III. OBJECTIVES

The objectives of this Annual Investment Policy, in priority order, are SAFETY OF PRINCIPAL, LIQUIDITY, AND MARKET RATE OF RETURN.

1. Safety of Principal. The primary objective of SCAQMD is to reduce credit risk and interest rate risk to a level that is consistent with safe and prudent investment management. Credit risk is the risk of default or the inability of a debt issuer to make interest or principal payments when due. Credit risk is minimized by investing in only permitted investments and diversifying the portfolio according to this Annual Investment Policy so that no one type of issuer or issue will have a disproportionate impact on the portfolio. Interest rate risk is associated with price volatility introduced by extending the maturity of instruments purchased. Interest rate risk is controlled by limiting the maturity exposure to acceptable levels.

2. Liquidity. SCAQMD funds will be invested to ensure that normal cash needs and scheduled extraordinary cash needs can be met. Cash flow forecasting will be used to determine the current and projected future needs of SCAQMD and the ability of SCAQMD to make Special Purpose Investments. SCAQMD shall invest funds in instruments for which there is a secondary market and which offer the flexibility to be easily sold at any time with minimal risk of loss of either the principal or interest based upon then prevailing interest rates.
3. Market Rate of Return. SCAQMD's funds shall be invested to attain a market average rate of return through economic cycles consistent with maintaining risk at a prudent level.

These objectives are to be achieved in part through the diversification of SCAQMD investments among the Los Angeles County Pooled Surplus Investment Portfolio and Special Purpose Investments. The combination of the Pooled Surplus Investment Portfolio and the Special Purpose Investment of SCAQMD funds in the State of California Local Agency Investment Fund will provide significant diversification, safety of principal and liquidity for the programs of the SCAQMD. Other Special Purpose Investments in an SCAQMD separate account will experience market price changes due to interest rate risk consistent with longer maturity investments that are permitted by this policy.

IV. RESPONSIBILITIES

The Governing Board. The SCAQMD Governing Board is responsible for establishing the Annual Investment Policy and ensuring investments are made in compliance with this Policy. This Policy shall be reviewed annually by the Governing Board at a public meeting pursuant to Section 53646(g) of the California Government Code. The Los Angeles County Treasurer has been appointed Treasurer of SCAQMD. The Treasurer shall be appointed at least annually by the SCAQMD Governing Board.

The Treasurer. The Treasurer is responsible for making investments and for compliance with this Policy pursuant to the delegation of authority to invest funds or to sell or exchange securities made in accordance with Code Section 53607. The Treasurer shall submit a monthly report of investment transactions to the SCAQMD Governing Board. If the SCAQMD Governing Board appoints as Treasurer someone other than the Los Angeles County Treasurer, the new Treasurer shall be responsible for making investments and for compliance with this Policy or such other Policy which may be adopted by the Governing Board at that time.

The Assistant Deputy Executive Officer of Finance. The Assistant Deputy Executive Officer of Finance, based on information provided by the Treasurer, shall submit a quarterly report to the Governing Board pursuant to Code Section 53646(g). The Assistant Deputy Executive Officer of Finance is responsible for preparation of cash flow forecasts for SCAQMD funds as described below. The Assistant Deputy Executive Officer of Finance will recommend specific individual investments for the Special Purpose Investments to be made by the Treasurer.

The Investment Oversight Committee. The SCAQMD Governing Board shall appoint an Investment Oversight Committee. The duties and responsibilities of the Investment Oversight Committee shall consist of the following:

1. Annual review of SCAQMD's Investment Policy before it is considered by the Governing Board, and recommend revisions, as necessary, to the Assistant Deputy Executive Officer of Finance.
2. Quarterly review of SCAQMD's investment portfolio for conformance with SCAQMD's Annual Investment Policy diversification and maturity guidelines, and make recommendations to the Assistant Deputy Executive Officer of Finance as appropriate.
3. Provide comments to the SCAQMD Assistant Deputy Executive Officer of Finance regarding potential investments and potential investment strategies.
4. Perform such additional duties and responsibilities as may be required from time to time by specific action and direction of the Governing Board.

It shall not be the purpose of the Investment Oversight Committee to advise on particular investment decisions of SCAQMD.

V. IMPLEMENTATION

This Policy establishes and defines investable funds, authorized instruments, credit quality requirements, maximum maturities and concentrations, collateral requirements, and qualifications of brokers, dealers, and financial institutions doing business with or on behalf of the SCAQMD.

A. Standard of Care.

SCAQMD's Governing Board or persons authorized to make investment decisions on behalf of SCAQMD are trustees and fiduciaries subject to the prudent investor standard, as required by Code Section 53600.3, and shall be applied in the context of managing an overall portfolio. SCAQMD's investment professionals acting in accordance with written procedures and the Annual Investment Policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control developments.

The Prudent Investor Standard: When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including but not

limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency.

B. Investable Funds.

Investable Funds for purposes of this Policy are the SCAQMD general, special revenue, trust, agency and enterprise funds that are available for investment at any one time including any estimated bank account float. Investable Funds are idle or surplus funds of the SCAQMD including all segregated funds. All bond proceeds are excluded from Investable Funds. The Cash Flow Horizon is the time period in which the SCAQMD cash flow can be reasonably forecast. This Policy establishes the Cash Flow Horizon for SCAQMD idle or surplus funds to be three (3) years. The SCAQMD cash flow forecast must be updated at least every six months.

When the SCAQMD Assistant Deputy Executive Officer of Finance determines that the cash flow forecast can be met, the Treasurer, at the request of the Assistant Deputy Executive Officer of Finance, may invest a maximum of up to 75% of the minimum amount of funds available for investment during the Cash Flow Horizon in Special Purpose Investments (“SPI”), exclusive of investments in the State of California Local Agency Investment Fund (“LAIF”), in a separate account outside of the Pooled Surplus Investment (“PSI”) Portfolio, in accordance with this Policy.

C. Authorized Investments.

Authorized investments shall match the general categories established by the California Government Code Sections 53601 et seq. and 53635 et seq.

Authorization for specific instruments within these general categories as well as portfolio concentration and maturity limits are established below as part of this Policy. No investments shall be authorized that have the possibility of returning a zero or negative yield when held to maturity; for example: inverse floaters, range notes or interest only STRIPS. As the California Government Code is amended, this Policy shall likewise become amended.

SCAQMD investments or deposits in the County of Los Angeles PSI Portfolio are governed by the County of Los Angeles Treasurer’s Investment Policy for Pooled Surplus Funds. SCAQMD investments or deposits in the LAIF are governed by the investment policy and guidelines for LAIF as established by the Office of the Treasurer for the State of California. Investments in LAIF are an SPI investment and are limited in amount to the investment limits established for LAIF by the California State Treasurer.

SCAQMD funds and segregated funds that are invested by the Treasurer in an SPI separate account outside of the County of Los Angeles PSI Portfolio or LAIF are subject to this Policy. SCAQMD funds invested in an SPI separate account will be governed by various approved lists that may be established and maintained by the Los Angeles County Treasurer or the SCAQMD's Investment Advisor.

D. Maximum Maturities.

The maximum maturity of any SPI investment shall be five (5) years. The weighted average maturity of the SPI separate account portfolio may not exceed three (3) years. Maturity shall mean the nominal maturity of the security, or the unconditional put option date, if the security contains such provision. Term or tenure shall mean the remaining time to maturity when purchased.

E. Permitted Investments.

1. U.S. Treasuries.

Direct obligations of the United States of America and securities which are fully and unconditionally guaranteed as to the timely payment of principal and interest by the full faith and credit of the United States of America.

U.S. Treasury coupon and principal STRIPS are not considered to be derivatives for the purpose of this Annual Investment Policy and are, therefore, permitted investments pursuant to the Annual Investment Policy.

2. Federal Agencies and U.S. Government Sponsored Enterprises.

Obligations, participations, or other instruments of, or issued by, a federal agency or a United States government sponsored enterprise.

3. Los Angeles County Pooled Surplus Investment Portfolio.

The County of Los Angeles Pooled Surplus Investment Portfolio is a pooled fund managed by the County Treasurer whose permitted investments are authorized in the Code and are governed by the Treasurer's Investment Policy with credit requirements and maturity limits established by the County Treasurer and adopted by the County Board of Supervisors.

4. State of California Local Agency Investment Fund.

LAIF is a pooled fund managed by the Office of the State Treasurer whose permitted investments are identified in the Code and whose credit requirements and maturity limits are established by the State Treasurer.

5. Shares of Money Market Mutual Funds.

Credit requirements for approved money market funds shall be limited to ratings of AAA by at least two nationally recognized statistical rating organizations (NRSRO) or managed by an investment advisor registered with the Securities and Exchange Commission with not less than five years' experience and with assets under management in excess of five hundred million dollars (\$500,000,000), and such investment may not represent more than ten percent (10%) of the total assets in the money market fund.

6. Bankers' Acceptances.

Bankers' acceptances must be issued by national or state-chartered banks or a state-licensed branch of a foreign bank. Eligible bankers' acceptances shall have the highest ranking or the highest letter and number rating as provided for by a NRSRO.

Maximum maturities for bankers' acceptances are 180 days.

7. Negotiable Certificates of Deposit.

Negotiable certificates of deposit must be issued by national or state-chartered banks, a federally- or state-licensed branch of a foreign bank, savings associations and state or federal credit unions. Negotiable CDs must be rated in a rating category of "A" "A-1/A" or its equivalent, or higher, by at least one NRSRO.

The SCAQMD will not purchase negotiable certificates of deposit of a savings association or credit union as Special Purpose Investments if an SCAQMD Board member or a member of management staff, with investment authority, also serves on the Board of Directors or a committee of that savings association or credit union.

Maximum maturities for all negotiable certificates of deposit are five (5) years.

8. Commercial Paper.

Commercial paper of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a NRSRO. The entity that issues the commercial paper shall meet all of the following conditions in either paragraph a. or paragraph b.:

- a. The entity meets the following criteria:
 - i. Is organized and operating in the United States as a general corporation.
 - ii. Has total assets in excess of one billion dollars (\$1,000,000,000).

- iii. Has debt other than commercial paper, if any, that is rated in a rating category of “A”, or the equivalent, or higher, by a NRSRO.
- b. The entity meets the following criteria:
 - i. Is organized within the United States as a special purpose corporation, trust, or limited liability company.
 - ii. Has program wide credit enhancements including, but not limited to, over collateralization, letters of credit, or surety bond.
 - iii. Has commercial paper that is rated in a rating category of “A-1”, or the equivalent, or higher, by at least two NRSROs.

Investments may not represent more than ten percent (10%) of the outstanding paper of the issuing corporation.

Maximum maturities for commercial paper are 270 days.

9. Medium Term Maturity Corporate Securities.

Medium-term corporate notes shall be rated in a rating category “A” or its equivalent or higher by a NRSRO.

Floating rate medium term notes may be used if interest resets at least quarterly.

Maximum maturities for medium term maturity corporate securities are five years.

10. Mortgage Securities or Asset-backed Securities.

~~Credit requirements for any mortgage pass through security, collateralized mortgage obligations, mortgage backed or other pay through bond, equipment lease backed certificate, consumer receivable pass through certificate, or consumer receivable backed bond shall be rated “AAA” or its equivalent or better by a nationally recognized rating service, and issued by an issuer having a rating in the category of “AA”, or its equivalent, or higher by a NRSRO for its long term debt. All asset-backed securities must be rated in a rating category of “AA” or its equivalent or better rating and the issuer’s corporate debt rating must be in a rating category of “A” or its equivalent or better by a Nationally Recognized Statistical Rating Organization (NRSRO).~~

The maximum maturity for Mortgage or Asset-backed Securities shall be five years.

11. Repurchase Agreements.

All repurchase transactions must be collateralized by U.S. Treasuries or Agencies with a market value of 102% for collateral marked to market daily,

entered into with a broker-dealer which is a recognized primary dealer and evidenced by a broker-dealer master purchase agreement signed by the County Treasurer and approved by SCAQMD.

The maximum maturity of a repurchase agreement shall be 30 days.

12. Reverse Repurchase Agreements.

Reverse repurchase agreements are not allowed except as part of investments in the County of Los Angeles Pooled Surplus Investment Portfolio and the State of California Local Agency Investment Fund.

13. Variable and Floating Rate Securities.

Variable and floating rate securities are instruments that have a coupon or interest rate that is adjusted periodically due to changes in a base or benchmark rate. Investments in floating rate securities must utilize commercially available U.S. denominated indices such as U. S. Treasury bills or Federal Funds. Investments in floating rate securities whose reset is calculated using more than one of the above indices are not permitted, i.e. dual index notes.

Variable and Floating Rate Securities that are priced based on a single common index are not considered derivative securities.

The maximum maturity is five years.

14. Obligations of the State of California or any local agency within the state.

Permitted obligations will include bonds payable solely out of revenues from a revenue producing property owned, controlled or operated by the state or any local agency, or by a department, board, agency or authority of the state or any local agency.

Obligations of the State of California or other local agencies within the state must be rated in a rating category of “A”, or its equivalent, or higher, by a NRSRO.

15. Obligations of Supranational Institutions

Permitted obligations will include U.S. dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by any of the supranational institutions identified in California Government Code Section 53601(q), which are eligible for purchase and sale within the U.S.

Obligations of supranational institutions must be rated in a rating category of “AA”, or its equivalent, or higher, by a NRSRO.

F. Diversification Guidelines.

Diversification limits ensure that at the time of investment the SCAQMD’s portfolio is not unduly concentrated in the securities of one type, industry, or issuer, thereby assuring adequate portfolio liquidity should one sector or issuer experience difficulties. The diversification limits outlined below for an individual investment instrument and issuer/counterparty are expressed as the maximum percentage of the total SCAQMD’s portfolio invested by the Los Angeles County Treasurer. Maximum percentage limits shall apply at the time of purchase and allocations in excess of maximum percentages due to fluctuations in portfolio size will not be considered out of compliance with this Policy.

<u>Instrument</u>	<u>Maximum % of Portfolio</u>
1. U.S. Treasuries	100%
2. Federal Agencies & U.S. Government Sponsored Enterprises	100%
3. Los Angeles County Pooled Surplus Investment Portfolio	100%
4. State of California Local Agency Investment Fund	100%
5. Shares of Money Market Mutual Funds	15%
6. Bankers Acceptances	40%
7. Negotiable Certificates of Deposit	30%
8. Commercial Paper	25%
9. Medium Term Maturity Corporate Securities	30%
10. Mortgage Securities or Asset-backed Securities	20%
11. Repurchase Agreements	50%
12. Reverse Repurchase Agreements*	Not Allowed
13. Variable and Floating Rate Securities	30%
14. Obligations of the State of California or any California local agency	30%
15. Obligations of Supranational Institutions	10%

* See Section V(E)(12).

<u>Issuer/Counterparty</u>	<u>Maximum % of Portfolio</u>
Any one Federal Agency or U.S. Government Sponsored Enterprise	50%
Securities of any single non-government issuer or its related entities, regardless of security type	5%
Securities of any State of California or California local agency	5%
Any one Repurchase Agreement or other collateralized counterparty name	50%

G. Investment Agreements (For Bond Funds Only).

Investment Agreements or Fully Flexible Repurchase Agreements shall provide a fixed spread to an index or a fixed rate of return with liquidity, usually one-to-seven day's withdrawal notice with no penalties, to meet cash flow needs of the SCAQMD. Investment Agreements may be with any bank, insurance company or broker/dealer, or any corporation whose principal business is to enter into such agreements, if:

1. At the time of such investment:
 - a. Such bank has an unsecured, uninsured and unguaranteed obligation rated in a rating category of "AA", or its equivalent, or higher, by at least two NRSROs, or
 - b. such insurance company or corporation has an unsecured, uninsured and unguaranteed claims paying ability rated "AAA" or its equivalent by at least two NRSROs, or
 - c. such bank or broker/dealer has an unsecured, uninsured and unguaranteed obligation rated in a rating category of "A", or its equivalent, or higher by at least two NRSROs (and with respect to such broker/dealer shall be rated of the highest short-term ratings by at least two NRSROs); provided, that such broker/dealer or "A" rated bank also collateralize the obligation under the investment agreement with U.S. Treasuries or Agencies.
2. The agreement shall include a provision to the effect that if any rating of any such bank, insurance company, broker/dealer or corporation is downgraded below the rating existing at the time such agreement was entered into, the SCAQMD shall have the right to terminate such agreement.
3. Collateralization shall be at a minimum of 102%, marked to market, at a minimum, weekly.

The maximum term for an Investment Agreement for bond proceeds will be governed by the permitted investment language of the bond indenture.

H. Rating Downgrades.

Securities that are currently under "Credit Watch-Negative" for downgrade below the minimum credit criteria of this Policy by any NRSROs are not permitted for purchase for the SPI investments under this Policy.

The SCAQMD SPI separate account may from time to time be invested in a security whose rating is downgraded below the quality criteria permitted by the Annual

Investment Policy. Any security held as an investment whose rating falls below the investment guidelines or whose rating is put on notice for possible downgrade shall be immediately reviewed for action by the Assistant Deputy Executive Officer of Finance. The decision to retain the security until maturity, sell (or put) the security, or other action shall be approved by the Treasurer. Minimum credit criteria shall apply at the time of purchase.

I. Securities Safekeeping.

Securities shall be deposited for safekeeping with a third party custodian in compliance with Code Section 53608.

J. Review and Monitoring of Investments.

The Assistant Deputy Executive Officer of Finance will submit to the Governing Board the quarterly reports on investments prepared by the Treasurer for the Pooled Surplus Investment Portfolio and SCAQMD funds invested in the State Local Agency Investment Fund and Special Purpose Investments. The Assistant Deputy Executive Officer of Finance will review at least monthly the transactions and positions of SCAQMD funds invested in Special Purpose Investments outside of the Local Agency Investment Fund or the Pooled Surplus Investment Portfolio.

Approved ~~March 2, 2018~~ March 1, 2019

RESOLUTION NO. 19-_____

A Resolution of the South Coast Air Quality Management District Board delegating authority to the Treasurer of the County of the Los Angeles to invest and reinvest funds of the South Coast Air Quality Management District.

WHEREAS, the Governing Board of the South Coast Air Quality Management District desires to reaffirm the appointment of the Treasurer of the County of Los Angeles as Treasurer of the South Coast Air Quality Management District; and

WHEREAS, the Governing Board of the South Coast Air Quality Management District pursuant to Section 40527 of the Health and Safety Code Section has authority to appoint a Treasurer; and

WHEREAS, the Governing Board of the South Coast Air Quality Management District pursuant to Section 53607 of the Government Code is required to annually renew the delegation of authority to its Treasurer to invest or to reinvest funds, or sell or exchange securities of the District.

THEREFORE, BE IT RESOLVED that the Governing Board of the South Coast Air Quality Management District hereby delegates to the Treasurer of the County of Los Angeles the authority to invest or reinvest funds of the South Coast Air Quality Management District.

AYES:

NOES:

ABSENT:

DATE: _____

Clerk of the Boards

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 6

PROPOSAL: Transfer and Appropriate Funds and Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services

SYNOPSIS: SCAQMD currently has contracts with several companies for short- and long-term systems development, maintenance and support services. These contracts are periodically amended as additional needs are defined. This action is to transfer and appropriate funds totaling \$559,955 and amend three contracts previously approved by the Board to add funding for needed development and maintenance work.

COMMITTEE: Administrative, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

RECOMMENDED ACTIONS:

1. Transfer and appropriate \$304,695 from the Designation for Permit Streamlining (Assigned Fund Balance) to Information Management's FY 2018-19 Budget, Capital Outlays Major Object, Capital Outlays Account, for continuation of permitting systems automation projects listed in the Attachment.
2. Transfer and appropriate \$100,000 from the Designation for Permit Streamlining (Assigned Fund Balance) to Information Management's FY 2018-19 Budget, Services and Supplies Major Object, Professional and Special Services Account, for permitting systems automation maintenance.
3. Transfer and appropriate \$133,010 from the Undesignated (Unassigned) Fund Balance to Information Management's FY 2018-19 Budget, Capital Outlays Major Object, Capital Outlays Account, for the Mobile Application.
4. Transfer \$22,250 from Information Management's FY 2018-19 Budget, Services and Supplies Major Object, Professional and Specialized Services Account to Information Management's FY 2018-19 Capital Outlays Major Object, Capital Outlays Account for enhancements to the e-MoVERS web application.

5. Authorize the Executive Officer to execute amendments to the contracts for systems development services in the amount of \$72,250 to Prelude Systems, \$133,010 to AgreeYa Solutions, and \$354,695 to Varsun eTechnologies from the FY 2018-19 Budget for the specific task orders listed in the Attachment.

Wayne Nastri
Executive Officer

RMM:XC:jga

Background

At the March 2, 2018 meeting, the Board authorized staff to initiate level-of-effort contracts with several vendors for systems development, maintenance and support services. At the time these contracts were executed, it was expected that they would be modified in the future to add funding from approved budgets as system development requirements were identified and sufficiently defined so that task orders could be prepared. The contracts are for one year with the option to renew for two one-year periods.

System development and maintenance efforts are currently needed (see Attachment) to enhance system functionality and to provide staff with additional automation for improving productivity. The estimated cost to complete the work on these additional tasks exceeds the amount of funding in the existing contracts.

System development and maintenance efforts are currently needed to replace the SCAQMD Mobile Application on the Android mobile operating system environment. In November 2018, a completely redesigned SCAQMD Mobile Application was launched on the iOS mobile operating system environment to great success. The new application offered an intuitive user interface that delivered up-to-date and meaningful air quality information along with integrated weather information for multiple cities. It also included interactive air quality and alternative fuel maps using Esri's ArcGIS Mobile mapping platform. Since launching on Apple's app store, the SCAQMD Mobile Application has been installed on over 2,800 devices and received a 4.8-star rating. With the successful launch of the iOS version of the SCAQMD Mobile Application, there has been high demand to bring the Android version of the SCAQMD Mobile Application into parity.

This item is listed on the "Status Report on Major Ongoing and Upcoming Projects for Information Management."

Proposal

Staff proposes to amend three existing contracts to add \$72,250 to Prelude Systems, \$133,010 to AgreeYa Solutions and \$354,695 to Varsun eTechnologies for the specific task orders listed in the Attachment.

Staff also proposes a transfer of \$304,695 from the Designation for Permit Streamlining (Assigned Fund Balance) into Information Management's FY 2018-19 Budget to the Capital Outlays Major Object, Capital Outlays Account, to continue funding the second phase of the Permitting Systems Automation project.

In addition, staff proposes a transfer of \$100,000 from the Designation for Permit Streamlining (Assigned Fund Balance) into Information Management's FY 2018-19 Budget to the Services and Supplies Major Object, Professional and Special Services Account, for the Online Filing, Registration, Form Filing, Mapping, and Workflow Automation systems.

A transfer of \$133,010 is also proposed from the Undesignated (Unassigned) Fund Balance to Information Management's FY 2018-19 Budget, Capital Outlays Major Object, Capital Outlays Account, for Mobile Application development.

In addition, staff also proposes a transfer of \$22,250 from Information Management's FY 2018-19 Budget, Services and Supplies Major Object, Professional and Specialized Services Account, to Information Management's FY 2018-19 Capital Outlays Major Object, Capital Outlays Account, to fund enhancements to the e-MoVERS web application.

Resource Impacts

Upon Board approval, sufficient funding will be available in the FY 2018-19 Budget.

Attachment

Task Order Summary

Attachment

Task Order Summary

Section A – Funding Totals for all Systems Development Contracts

CONTRACTOR	PREVIOUS FUNDING	PROPOSED ADDITION	TOTAL FUNDING
AgreeYa Solutions	\$195,000	\$133,010	\$328,010
Prelude Systems	\$295,825	\$72,250	\$368,075
Sierra Cybernetics	\$544,891	\$0	\$544,891
Varsun eTechnologies	\$1,078,790	\$354,695	\$1,432,885
TOTAL	\$2,114,506	\$559,955	\$2,673,861

Section B – Task Orders Scheduled for Award

TASK	DESCRIPTION	AMOUNT	AWARD TO
Permitting Automation Phase 3: 400-E-XX Form Filing and Workflow Automation	Continue On-Line Application Filing (OLAF) system automation work. Phase 3 development, modifications, and enhancements.	\$304,695	Varsun
Form Filing, Mapping, and Workflow Automation Maintenance	Maintenance of Phases 1 and 2 of the On Line Application Filing (OLAF) web application (which is currently in production), including mapping and receptor distances upgrades and Workflow Automation.	\$50,000	Prelude
On Line Filing and Registration Maintenance	Maintenance for the On Line Filing and Registration (Rule 222) web application.	\$50,000	Varsun
Mobile Application development for Android operating system	Development of SCAQMD Mobile Application on Android Mobile operating system.	\$133,010	AgreeYa
Electronic Mobile Vehicle Emission Reduction System Enhancements	Enhance the e-MoVERS web application to allow authorized users to re-open program registrations for single and multi-site facilities.	\$22,250	Prelude
TOTAL		\$559,955	

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 7

PROPOSAL: Authorize Purchase of Maintenance and Support Services for Servers and Storage Devices

SYNOPSIS: The servers and storage devices are used by enterprise-level software applications that currently support the Clean Air Support System for all SCAQMD core activities. Maintenance support for these systems will expire on April 30, 2019. This action is to obtain approval for the sole source purchase of hardware and software maintenance and support services for servers and storage devices from Hewlett Packard Enterprise Company for one year, in an amount not to exceed \$120,000.

COMMITTEE: Administrative, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

RECOMMENDED ACTIONS:

Authorize the Procurement Manager to purchase one year of maintenance and support services for SCAQMD servers and storage devices from Hewlett Packard Enterprise Company at a cost not to exceed \$120,000.

Wayne Natri
Executive Officer

RMM:MH:JP:cj

Background

SCAQMD uses HewlettPackard Enterprise Company (HP) servers and storage devices running Windows Server and Linux operating systems. The HP servers support several production applications such as the Clean Air Support System (CLASS), Permit Processing, Finance, Compliance, NSR, Emission Fee Billing, Notice of Violations, Facility Permits, ERS Interim Reports, Subscription Services, Central Stations, PeopleSoft Financial and HCM database, OnBase document management system, JWorks Legal system, AQMP Modeling and Telemetry system. Hardware and software maintenance and support services are required to ensure the continued operation of these programs with minimum interruption. Maintenance and support services for these servers expire on April 30, 2019.

In 2006, the Board approved release of an RFQ to select a vendor capable of providing the most cost-effective hardware and software maintenance and support services for servers. Only one vendor, (HP), the company that is currently supporting SCAQMD's servers, submitted a bid. HP is the sole manufacturer and provider of the hardware and software, and the only source for maintenance support licensing agreements. HP also provides the SCAQMD with substantial discounts through the WSCA (Western States Contracting Alliance) cooperative agreements.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies circumstances under which a sole source purchase award may be justified. This request for a sole source award is made under provision VIII.B.2.c(2) and (3). The project involves the use of proprietary technology, and the contractor has ownership of key assets required for project performance. HP is the sole provider of this hardware and software and therefore, the only source for its maintenance and support licensing agreements.

Proposal

Staff recommends the purchase of one year of maintenance and support services for server hardware and software from HP at a cost not to exceed \$120,000.

Resource Impacts

Sufficient funds are included in the FY 2018-19 Budget.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 8

PROPOSAL: Execute Contract for Consultant Services for SCAQMD
Environmental Justice Outreach and Initiatives

SYNOPSIS: At the December 7, 2018, meeting, the Board approved the release of an RFP to solicit proposals from individuals and organizations to provide assistance with community and stakeholder outreach efforts related to SCAQMD's Environmental Justice Program, including but not limited to, the Environmental Justice Community Partnership Initiative meetings and conference. After the Committee interviewed representatives from the Lee Andrews Group, Inc., the Committee Members present (less than a quorum) concurred that this item be forwarded to the full Board. This action is to execute a contract with Lee Andrews Group, Inc. for \$160,000 for a one-year contract with an option for up to two one-year term renewals, upon satisfactory performance, at the Board's discretion. Funding for year one services is contained in the Legislative, Public Affairs & Media FY 2018-19 budget. Future funding for FYs 2019-20 and 2020-21 will be subject to Board approval.

COMMITTEE: Administrative, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with Lee Andrews Group, Inc. for consultant services for SCAQMD's Environmental Justice Program for \$160,000 for a one-year contract with an option for up to two one-year contract renewals, contingent on satisfactory performance, approval of subsequent budgets, and Board approval. Funding for year one services is contained in the Legislative, Public Affairs & Media FY 2018-19 Budget. Future funding for FYs 2019-20 and 2020-21 will be subject to Board approval.

Wayne Nastri
Executive Officer

Background

The Environmental Community Justice Community Partnership (ECJP) was initiated in February 2015, as a Chairman's initiative. The objective of EJCP is to both strengthen and build SCAQMD's relationships with stakeholders in environmental justice communities to improve air quality and public health. EJCP will host a series of events and workshops throughout the year to facilitate open dialogue and information sharing on air quality issues with community members, elected officials, government entities, businesses, environmental and health organizations and all levels of academic institutions. The outreach efforts will include forums, training opportunities, and special presentations to educate and to receive feedback from participants on air quality, SCAQMD rules and programs, and other related topics.

Staff periodically releases Requests for Proposals (RFPs) for consultants to augment in-house expertise and assist staff with external advisory groups, and the development, planning, and implementation of specifically targeted workshops, events, and conferences. The consultant will assist with the following, but not limited to:

- 1) Coordination and regular interaction with EJCP;
- 2) Execution of a Bus Tour on Environmental Justice;
- 3) Planning and production of a series of four (4) Environmental Justice Community Partnership workshops, or events, each to be held in a different community identified throughout the South Coast Air Basin; and the fifth annual Environmental Justice for All Conference in 2019; and,
- 4) Production of an Inter-Agency Task Force and Community Summit.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFP and inviting bids was published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers.

Additionally, potential bidders were notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP was also emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov>).

Bid Evaluation

Only one proposal was received in response to RFP #2019-09. Lee Andrews Group Inc., the current contractor, submitted the proposal. The contractor was deemed qualified to be forwarded to SCAQMD's Administrative Committee for consideration.

Proposal

Less than a quorum of the Committee was present at the February 8, 2019 Administrative Committee meeting. After interviewing the Lee Andrews Group, Inc., and reviewing written materials submitted as part of the proposal, the Committee Members that were present concurred that this item be forwarded to the Board.

Resource Impacts

Funding for year one services is contained in the Legislative, Public Affairs & Media FY 2018-19 Budget. Future funding for FYs 2019-20 and 2020-21 will be subject to Board approval.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 9

PROPOSAL: Approve Contract Awards as Approved by MSRC

SYNOPSIS: The MSRC approved two replacement contracts as part of their FYs 2012-14 Work Program. At this time the MSRC seeks Board approval of the contract awards as part of the FYs 2012-14 Work Program.

COMMITTEE: Mobile Source Air Pollution Reduction Review, February 21, 2019, Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve a replacement contract with the County of Los Angeles, in an amount not to exceed \$104,400, to install publicly accessible electric vehicle charging stations under the Local Government Match Program, as part of approval of the FYs 2012-14 Work Program, as described in this letter;
2. Approve a replacement contract with the County of Los Angeles, in an amount not to exceed \$150,000, to complete improvements to the San Gabriel River Bike Trail under the Local Government Match Program, as part of approval of the FYs 2012-14 Work Program, as described in this letter;
3. Authorize MSRC the authority to adjust contract awards up to five percent, as necessary and previously granted in prior work programs; and
4. Authorize the Chairman of the Board to execute the new contracts under the FYs 2012-14 Work Program, as described above and in this letter.

Larry McCallon
Chair, MSRC

MMM:NB:CR

Background

In September 1990, Assembly Bill 2766 was signed into law (Health & Safety Code Sections 44220-44247) authorizing the imposition of an annual \$4 motor vehicle registration fee to fund the implementation of programs exclusively to reduce air pollution from motor vehicles. AB 2766 provides that 30 percent of the annual \$4 vehicle registration fee subvented to the SCAQMD be placed into an account to be allocated pursuant to a work program developed and adopted by the MSRC and approved by the Board.

Proposals

At its February 21, 2019 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

As part of its FYs 2012-14 Local Government Match Program, the MSRC awarded the County of Los Angeles \$104,400 to install publicly accessible charging stations. The County's agreement for operation of charging stations was expiring and needed to be re-bid, delaying progress on the project. The County requested an extension, but was not able to return the modification documents in time and the contract to effectuate the project lapsed on January 5, 2019. Shortly thereafter, the County submitted a request to complete the project. The MSRC considered and approved a twelve-month replacement contract in the amount of \$104,400 as part of the FYs 2012-14 Work Program.

Also as part of its FYs 2012-14 Local Government Match Program, the MSRC awarded the County of Los Angeles \$150,000 to complete improvements to the San Gabriel River Bike Trail where it passes under the Interstate 10 freeway. Subsequently the County indicated that delays associated with obtaining local agency encroachment permits, and associated agency-requested design revisions, had delayed the project. The County requested an extension, but was not able to return the modification documents in time and the contract to effectuate the project lapsed on January 13, 2019. The MSRC considered and approved a seven-month replacement contract in the amount of \$150,000 as part of the FYs 2012-14 Work Program.

At this time, the MSRC requests the SCAQMD Board to approve the contract awards as part of approval of the FYs 2012-14 AB 2766 Discretionary Fund Work Program as outlined above. The MSRC also requests the Board to authorize the SCAQMD Chairman of the Board the authority to execute all agreements described in this letter. The MSRC further requests authority to adjust the funds allocated to each project specified in this Board letter by up to five percent of the project's recommended funding. The Board has granted this authority to the MSRC for all past Work Programs.

Resource Impacts

The SCAQMD acts as fiscal administrator for the AB 2766 Discretionary Fund Program (Health & Safety Code Section 44243). Money received for this program is recorded in a special revenue fund (Fund 23) and the contracts specified herein will be drawn from this fund.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 10

PROPOSAL: Annual Meeting of the Health Effects of Air Pollution Foundation

SYNOPSIS: This item is to conduct the annual meeting of the Health Effects of Air Pollution Foundation. The Foundation staff will present an annual report detailing the research supported by the Foundation over the past year, the Foundation's plans for the future, and a financial report.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:

Receive and file the annual report and ratify the Foundation's disbursements described in the annual report.

Wayne Nastri
Executive Officer

BTG:ML

2018 Annual Report

1. Background

In February 2003, the SCAQMD Board directed staff to establish the Brain Tumor and Air Pollution Foundation to implement an initiative by the Board Chairman to fund research into the potential connections between air pollution and brain cancer. After years of supporting research related to the impacts of air pollution on brain tumors, in March 2017 the Board changed the Foundation's name to the Health Effects of Air Pollution Foundation and expanded the Foundation's mission to support research on the incidence, detection, and causes and cures of various health conditions that may be caused or aggravated by air pollution. To date, the Foundation has received contributions of almost \$9 million and has funded studies with leading medical and public health researchers in Southern California.

2. Directors and Officers

The Directors of the Foundation are: Ben Benoit, Chairman
Dr. William A. Burke, Vice Chairman
Dr. Clark E. Parker, Sr.
Judith Mitchell

The Foundation's staff is: Wayne Nastri, Chief Executive Officer
Denise Whitcher, Secretary
Sujata Jain, Treasurer
Susanna Leung, Assistant Treasurer

3. Report on the Foundation's Activities

Current Research Projects

The following are four research projects in progress that are currently being funded by the Foundation:

“A Cohort Study of Air Pollution, Malignant and Benign Brain Tumors in Los Angeles County” (BTAP010)

Principal Investigator: Dr. Anna Wu (University of Southern California)

Approved Funding: \$758,978

Summary: The proposed study will leverage the Multiethnic Cohort (MEC) study to examine whether air pollution is associated with primary malignant and benign brain tumors. The investigators leverage previous air pollution exposure work and propose adding new components (e.g. ultra-fine particle exposure, air toxics) to comprehensively assess air pollution exposures in the MEC cohort. The study proposes to examine associations between traffic air pollution and malignant primary brain cancer and meningiomas (non-cancerous brain tumors). Key milestones that have been accomplished so far include obtaining administrative approvals to conduct the research, calculating estimates of participants' exposures to criteria pollutants and ultrafine particles, conducting data management activities, and completing data linkages to cancer registries and Medicare and hospital discharge administrative files to identify brain tumor cases. As of January 2019, the project is still in progress, and the contract term has been extended to January 2020.

“Role of Particle-Induced Inflammation in Progression of Brain Tumors” (BTAP011)

Principal Investigator: Dr. Keith Black (Cedars-Sinai Medical Center)

Approved Funding: \$733,461

Summary: The investigators propose to study whether exposure to ambient air pollution-derived particulate matter (PM) alters the progression of brain tumors in

mice. The mice proposed to be used in the experiments have brain tumors initiated from human glioblastoma cell lines. The PM will be concentrated for experimental use from Irvine, California ambient air. As part of this study, changes in tumor progression and inflammatory markers (measured by changes in gene expression) and stem cell activation will also be evaluated. Key milestones that have been accomplished so far include the completion of the first experimental stages on tumor-bearing and non-tumor bearing mice. The mice were separated into four groups, which were exposed to filtered air, coarse PM, fine PM, and ultrafine PM for one month. The exposure period was originally planned to be 2 months, but had to be reduced to one month due to the tumor-bearing animals showing signs of distress and malaise. Molecular analyses (RNAseq and proteomics) were performed on the brain tissues of the non-tumor bearing mice, and preliminary findings show indications of changes in gene expression in certain pathways that play a fundamental role in cancer development, neurological disorders, inflammation and immune response, metabolic disorders, cardiovascular system function and disease, and other functions and diseases. In December 2018, the contract term was extended to June 2019.

“Do Changes in Amount and Composition of Ambient PM Influence Induction or Exacerbation of Brain and Lung Tumors?” (HEAPF012)

Principal Investigator: Dr. Arthur Cho (University of California, Los Angeles)

Approved Funding: \$979,182

Summary: This study proposes to use cellular and mouse models to investigate whether exposure to air pollution (PM and vapor phase) increases the expression of biological markers that are associated with the development or progression of lung or brain cancers. The investigators propose to collect ambient air samples at several locations and in different seasons in the Los Angeles Air Basin. The samples will be characterized for their potential biological actions, and then used in studying the potential effects in human lung cancer cells and brain cancer cells. Biological markers relevant to cancer development or progression (oxidative stress, inflammation, tumor cell growth stimulators, and invasive behavior of cells) will be evaluated in these experiments. The air samples will also be used in an exposure study of mice induced with brain cancer cells, to monitor and quantify tumor growth. Additionally, the study will separate the PM from the air samples into “fractions” with different chemical properties, and these PM fractions will be tested for toxicity using human lung and brain cancer cells, the same biological markers for inflammation and tumor cell growth. Key milestones that have been accomplished so far include collection of samples from all five collection sites, and hiring key staff to conduct the study components. The study experienced an administrative delay due to a requirement to inspect and approve the facility where the research will be conducted. The final preliminary cell effects study has been

completed, and was used as a reference sample to normalize differences in protein expression. This project is scheduled to complete in December 2019.

“Role of Particle-Induced Inflammation on Progression of Neurodegenerative Brain Disease” (HEAPF013)

Principal Investigator: Drs. Keith Black and Julia Ljubimova (Cedars-Sinai Medical Center)

Approved Funding: \$750,000

Summary: This study proposes to study whether exposure to ambient air pollution-derived particulate matter (PM) alters the progression of neurodegenerative disorders in mice. The mice proposed to be used in the experiments include ones that are genetically modified so that they will develop Alzheimer’s disease, as well as control wild-type mice. The mice were separated into four groups, which were exposed to filtered air, coarse PM, fine PM, and ultrafine PM for three months or six months. The PM will be concentrated for experimental use from Irvine, California ambient air. As part of this study, changes in disease progression and biomarkers of Alzheimer’s disease will also be evaluated. Key milestones that have been accomplished so far include the initiation of the three and six month PM exposure periods in three cohorts of mice, updates to the experimental timeline and quantifiable hypotheses based on the pathology of the mice used in the experiments, completion of three and six month exposures of filtered air in healthy control mice, and completion of PM experiments in healthy control mice using RNAseq and proteomic analysis, which resulted in the identification of key biomarkers that link PM exposures to Alzheimer’s disease. The researchers have also completed data quality assurance, data analysis, and biostatistical analysis activities. In December 2018, the contract term was extended to June 2019.

4. Financial Report

The Foundation’s fiscal year ended June 30, 2018. Financial statements were prepared by staff and audited by BCA Watson Rice, LLP (Auditor). Total expenses for the fiscal year were \$1,037,788 and included grants (\$1,036,480), audit fees (\$1,203) and other fees/taxes (\$105). The Auditor issued an unmodified opinion, indicating that the financial statements were presented fairly, in all material respects, and in accordance with generally accepted accounting principles.

As of December 31, 2018, the Foundation had a cash balance of \$1,909,628. Following is an accounting of the Foundation’s operations since its inception (7/23/03):

Revenue from Operations	
Contributions	\$8,972,568
Interest Income	43,801
<i>Total Revenue from Operations</i>	\$9,016,369
Operating Expenses	
Grants	
-Cedars-Sinai	\$6,068,110
-UCLA	316,030
-USC	703,402
Corporation Filing Costs	1,714
Bank charges	598
Professional fees-audit	16,887
<i>Total Operating Expenses</i>	\$7,106,741
Cash Balance	\$1,909,628

5. Plans for the Upcoming Year

The Foundation will continue monitoring the progress of the existing research projects and will provide an update to the Board when the projects have final results to report. During the February 2019 meeting, the Foundation Board members discussed reaching out to the existing researchers to conduct additional research stemming from the currently funded projects, as well as interest in funding new research to address community concerns about childhood asthma.

6. Resource Impacts

None.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 11

PROPOSAL: Amend Charter for Environmental Justice Community Partnership Advisory Council and Young Leaders Advisory Council

SYNOPSIS: The Environmental Justice Community Partnership Advisory Council and the Young Leaders Advisory Council meet four times a year, and staff is requesting a change to the respective charters to reflect that missing two consecutive meetings without notifying the SCAQMD is cause for the member's removal from the Advisory Council.

COMMITTEE: Administrative, February 8, 2019; Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

RECOMMENDED ACTION:

Approve the Amended Charters for the SCAQMD Environmental Justice Community Partnership Advisory Council and the Young Leaders Advisory Council.

Wayne Nastri
Executive Officer

DA:FW:jf

Background

The 2015 Environmental Justice Conference highlighted the need for ongoing dialogue and the establishment of an external Advisory Council. In 2016, the Environmental Justice Community Partnership Advisory Council (EJCP) was formed. EJCP provides SCAQMD with valuable feedback on how to best promote a two-way flow of communication with stakeholders.

In 2017, the Young Leaders Advisory Council (YLAC) was formed to identify the air quality issues and concerns of young adults (aged 18-30) in the region. The mission of YLAC is for SCAQMD to educate and engage young adults regarding the region's clean air issues and at the same time to garner from them greater insight into their generation's concerns, values and priorities about air quality from their peers and others.

Proposal

These two Advisory Councils meet four times a year (once every quarter). As attendance is critical to meet the needs of the SCAQMD and the public in getting input from these Advisory Councils, staff is recommending that the charters for EJCP and YLAC be amended to add an attendance policy that if a member misses two consecutive meetings without prior notice to SCAQMD they will be removed from the Advisory Council. Other minor edits are also being proposed.

Resource Impacts

None

Attachments

- A. SCAQMD Environmental Justice Community Partnership Advisory Council Charter
- B. SCAQMD Young Leaders Advisory Council Charter

ATTACHMENT A



South Coast Air Quality Management District Environmental Justice Community Partnership Advisory Council Charter

March 2019~~January 2016~~

Synopsis of History

The Environmental Justice Community Partnership (~~EJCP~~~~the Partnership~~) was launched during the 2015 Environmental Justice Conference as an agency initiative to strengthen and build upon SCAQMD's relationships and alliances with community stakeholders and organizations, to work towards achieving clean air and healthy sustainable communities for everyone. The Conference highlighted the need for ongoing dialogue and the establishment of an external advisory council to ensure that the ~~Partnership~~~~EJCP~~ initiative continually represents the diverse communities and air quality concerns identified throughout the South Coast Air Basin. Consequently, in 2016 the ~~Environmental Justice Community Partnership~~~~EJCP~~ Advisory Council (~~Advisory Council~~) was formed.

Advisory Council Mission

The mission of the Advisory Council is to provide input to ensure that the ~~Partnership~~~~EJCP~~ programs are relevant and address the air quality concerns of diverse communities throughout SCAQMD's jurisdiction.

Goals

1. Support SCAQMD's ~~EJCP~~ ~~Environmental Justice Community Partnership~~ efforts;
2. Advise SCAQMD so ~~the Partnership~~~~EJCP~~, where appropriate, can address environmental justice issues affecting the South Coast Air Basin; and

3. Help strengthen and build upon SCAQMD's relationships and alliances with community stakeholders.

Objectives

The Advisory Council shall achieve its goals by meeting four times per year (once each quarter), to:

1. Provide community updates regarding the ~~Partnership's~~ EJCP's activities as they pertain to local environmental justice issues;
2. Discuss the ~~Partnership's~~ EJCP's current environmental justice efforts;
3. Assist with the creation and implementation of the ~~Partnership's~~ EJCP's air quality related events and workshops that best address the needs of environmental justice communities in Los Angeles, Orange, Riverside, and San Bernardino Counties;
4. Promote a two-way flow of communication between SCAQMD and community stakeholders; and
5. Identify next steps and action items, and set the agenda for upcoming meetings.

Membership Qualifications and Composition

The Advisory Council shall reflect the ethnic and geographic diversity of the South Coast Air Basin. Members shall represent a variety of backgrounds and expertise, including, but not limited to, representatives of environmental justice, community, business and health organizations.

The Advisory Council will consist of no more than 16 members, with at least two members from each county within SCAQMD's jurisdiction: Los Angeles, Orange, Riverside, and San Bernardino Counties. The potential members, who represent some of the most highly impacted communities within SCAQMD's jurisdiction, will be recommended to and appointed by the Chairman of the SCAQMD Board, and will serve a one-year term with the possibility of being reappointed for extended one-year terms. Members of the Advisory Council will be removed after two consecutive meetings have been missed without prior notice to SCAQMD.

Operational Guidelines

Agendas for the meetings will be prepared and distributed to members according to legal (Brown Act) requirements. Members may submit questions, comments, and guest speaker recommendations to SCAQMD staff, to be considered for upcoming meetings. Meetings may be held at SCAQMD, off site, or via teleconference or

conference call. A quorum shall consist of a majority of the total number of individuals serving on the panel.

Reporting

The Governing Board's Administrative Committee shall be the Advisory Council's Board's liaison. The Advisory Council shall provide the Administrative Committee and Governing Board with an annual written report outlining its goals and accomplishments, and proposing its agenda for the coming year.

Compensation

The standing members of this Advisory Council shall be eligible for per diem of \$100 per meeting and reimbursement of mileage and parking expenses, in accordance with District policy, associated with attendance at meetings of this Advisory Council.

Brown Act

All meetings will be subject to the Brown Act, and will adhere to SCAQMD's public meeting and notification protocols.

ATTACHMENT B



South Coast Air Quality Management District Young Leaders Advisory Council (YLAC)

Charter

March 2019

Synopsis of History

The South Coast Air Quality Management District (SCAQMD) established the Young Leaders Advisory Council (YLAC) in 2017, to identify the air quality issues and concerns of young adults (aged 18-30) in the region. This would be the first advisory group that seeks to engage this generation specifically, and to benefit from their passion, commitment, and urgency to help improve our air.

Advisory Council Mission

The mission of the Young Leaders Advisory Council is for SCAQMD to educate and engage young adults regarding the region's clean air issues and at the same time to garner from them greater insight into their generation's concerns, values and priorities about air quality to their peers and others.

Goals

1. Establish a geographically and ethnically diverse advisory council that will provide guidance to SCAQMD on addressing air quality issues in the South Coast Air Basin that are of particular concern to young adults (ages 18-30);
2. Help strengthen and build upon SCAQMD's relationships and alliances with young adults by supporting SCAQMD's outreach efforts;
3. Ensure that SCAQMD makes meaningful and continuous progress towards cleaning the air through its decisions and activities;
4. Maximize the opportunity for young adults to learn more about SCAQMD, air quality and clean technology issues.

Objectives

The Young Leaders Advisory Council shall achieve its goals by meeting quarterly to:

1. Obtain information from participating parties regarding their efforts to help clean the air;
2. Report on their communities' concerns regarding air pollution;

3. Share information about ways to engage young adults on air quality, environmental sustainability, and clean technology issues;
4. Promote communication among related agencies, YLAC Members, and community stakeholders;
5. Assist with the creation and implementation of air quality related events and workshops that best address the needs of people aged 30 and under;
6. Empower young leaders with more information and knowledge about air quality, air quality management, SCAQMD, and the intersection of air pollution, clean technology and other environmental laws and issues; and
7. Identify next steps and action items.

Membership Qualifications and Composition

The Young Leaders Advisory Council shall reflect the ethnic and geographic diversity of the South Coast Air Basin. Members shall represent a variety of backgrounds and expertise, including, but not limited to, representatives of environmental justice groups, community organizations, schools and universities, businesses, and health organizations.

YLAC will consist of no more than 20 members, with at least two members from each county within the SCAQMD jurisdictional boundaries in Los Angeles, Orange, Riverside, and San Bernardino counties. Appointments will be made by the Governing Board Chairman with consideration for Board Member input, and following review by the Administrative Committee. The same process, as above, applies for reappointments to fill any vacancy or for removal of a member. The potential members, who represent some of the most highly impacted communities within SCAQMD's jurisdiction, will serve a one-year term with the possibility of being reappointed for extended one-year terms.

Members of the Advisory Council will be removed after two consecutive meetings have been missed without prior notice to SCAQMD.

Operational Guidelines

Agendas for the meetings will be prepared and distributed to members pursuant to any SCAQMD and state requirements and any relevant law. Members may submit questions, comments, and guest speaker recommendations to SCAQMD staff, to be considered for upcoming meetings. Meetings may be held at SCAQMD, off site, or via teleconference or conference call. A quorum shall consist of a majority of the total number of individuals serving on the panel.

Reporting

The Governing Board's Administrative Committee shall be the Young Leaders Advisory Council's Board's liaison. The Advisory Council shall provide the Administrative Committee and Governing Board with an annual written report addressing the YLAC's goals and objectives as stated above, describing the council's accomplishments, and proposing its agenda for the coming year.

Compensation

The standing members of this Advisory Council shall be eligible for per diem of \$100 per meeting and reimbursement of actual and necessary mileage and parking expenses for attending meetings of the YLAC.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 12

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the January 2019 outreach activities of the Legislative, Public Affairs and Media Office, which includes Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Business Assistance, Media Relations, and Outreach to Community Groups and Federal, State, and Local Governments.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

DJA:LTO:KH:DM

BACKGROUND

This report summarizes the activities of the Legislative, Public Affairs and Media Office for January 2019. The report includes: Major Events; Community Events/Public Meetings; Environmental Justice Update; Speakers Bureau/Visitor Services; Communications Center; Public Information Center; Business Assistance; Media Relations; and Outreach to Community Groups and Governments.

MAJOR EVENTS (HOSTED AND SPONSORED)

Each year SCAQMD staff engage in holding and sponsoring a number of major events throughout the SCAQMD's four county area to promote, educate and provide important information to the public regarding reducing air pollution, protecting public health, and improving air quality and the economy.

January 19

SCAQMD hosted its 5th Annual Building Upon a Dream: a Martin Luther King, Jr. Day of Service Forum, at the California African American Museum in Los Angeles. Over 350 were in attendance. The forum memorialized Dr. Martin Luther King, Jr.'s fight for all, and demonstrated how his dream can be materialized through the efforts of SCAQMD and its environmental justice partners to clean the air.

COMMUNITY EVENTS/PUBLIC MEETINGS

Each year SCAQMD staff engage with thousands of residents, providing valuable information about the agency, incentive programs and ways individuals can help reduce air pollution through events and meetings sponsored solely by SCAQMD or in partnership with others. Attendees typically receive the following information:

- Tips on reducing their exposure to smog and its health effects;
- Clean air technologies and their deployment;
- Invitations or notices of conferences, seminars, workshops and other public events;
- SCAQMD incentive programs;
- Ways to participate in SCAQMD's rules and policy development; and
- Assistance in resolving air pollution-related problems.

SCAQMD staff attended and/or provided information and updates at the following events:

January 15

Staff participated in the Rialto Unified School District Science, Technology, Engineering and Math (STEM) event attended by teachers, STEM curriculum development staff and interested stakeholders. Information was provided on air quality issues and SCAQMD programs, including AQ-SPEC. The event participants were interested in community monitoring as a STEM learning opportunity for students. Staff also brought a Mirai Hydrogen Fuel Cell vehicle for display.

January 24

Staff participated in the grand opening event for a new fast charger in the City of Santa Clarita. The charging station was funded partially by MSRC and SCAQMD. Staff provided information to attendees on air quality, clean cars and SCAQMD incentive funds for residential charging equipment.

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which staff participated throughout the month of January 2019. These events involve communities affected disproportionately from adverse air quality impacts.

January 10

Staff held the second Wilmington/Carson/West Long Beach, AB 617 Community Steering Committee meeting in Carson. The Committee members discussed community air quality concerns and provided input on boundaries, which will help guide technical analysis and prioritization of air quality concerns. Staff also presented on community air monitoring technologies.

January 11

Staff organized an Environmental Justice Community Partnership (EJCP), “Lunch and Learn Workshop on How Electric Vehicles Can Help Clean Our Air and Improve Public Health” in partnership with Assembly Member Sabrina Cervantes at the Renck Community Center in Riverside. The workshop was attended by approximately 85 people, including elected officials, small business owners, community based organizations, and community members. Staff presented information on air pollution, electric vehicles, and incentive programs.

January 17

Staff held the second San Bernardino/Muscoy, AB 617 Community Steering Committee meeting in Muscoy, which was co-hosted with Miguel Rivera, a member of the community. The Committee discussed community air quality concerns and provided input on boundaries, which would help guide technical analysis and prioritization of air quality concerns. Staff also presented information on community air monitoring technologies.

January 22

Staff participated in the 5th Annual Environmental Justice and Enforcement Symposium at the California Endowment in Los Angeles. The symposium was attended by college students, environmental health professionals, academia, local community organizations, and government employees from agencies such as Cal/EPA, CARB, and the City of Los Angeles.

January 23

Staff participated in the Coachella Valley Environmental Justice Task Force meeting which was attended by representatives from local elected official’s offices, regional and local agencies and community organizations. CARB staff presented information on the AB 617 Community Air Protection program. SCAQMD staff provided an update on current programs for residents and businesses.

January 24

Staff participated at the Joint Environmental Justice & Public Health Working Group meeting at SCAG. SCAG staff was seeking input on the 2020 SoCal Connect Public Health Report and reviewed proposed Environmental Justice analysis integration.

Staff held the second Boyle Heights/East Los Angeles/West Commerce, AB 617 Community Steering Community meeting in East Los Angeles, which was co-hosted with Anna Araujo from East L.A. Rising. The Committee discussed community air quality concerns and provided input on boundaries, which will help guide technical analysis and prioritization of air quality concerns. Staff also presented information on community air monitoring technologies.

January 30

Staff participated in CARB's Community Air Grant "kick-off" meeting with grant recipient Legacy LA. The purpose of the meeting was to review grant goals and tasks. Legacy LA will be partnering with Community Conservation Solutions to build a natural park at the Ramona Garden Housing Development adjacent to the I-10 freeway corridor. The natural park will reduce air and noise pollution, recycle storm water, build resilience to climate change and provide a green space for families and children to gather.

SPEAKERS BUREAU/VISITOR SERVICES

SCAQMD regularly receives requests for staff to speak on air quality-related issues from a wide variety of organizations, such as trade associations, chambers of commerce, community-based groups, schools, hospitals and health-based organizations. SCAQMD also hosts visitors from around the world who meet with staff on a wide range of air quality issues.

January 17

Staff presented information on SCAQMD Rule 1403 - Asbestos Emissions from Demolition/Renovation Activities, to over 500 property managers at the Orange County Regional Chapter of Community Association in Irvine.

January 22-23

Twelve members of the Nanjing China Delegation, including transportation, waterway, marine, port, and shipping staff, visited SCAQMD for two days in January. The visit included an overview on: SCAQMD, air quality regulatory authority, enforcement standards, rulemaking, mobile source measures, emission reductions, and clean air transportation vehicles. The visit also included a tour of the SCAQMD laboratory, and a visit to the SCAQMD air monitoring station in Rubidoux.

January 23

Staff presented information on SCAQMD, air quality, clean air technologies, and opportunities to improve the air and the environment, to over 200 students and their families at the Honey Hollow Elementary School, Science Night Event in Moreno Valley.

January 24

Staff presented information on SCAQMD, air quality, clean fuel vehicles and the health impact of air pollution to 40 members at the Glendora Rotary Club meeting.

Staff presented information on SCAQMD, compliance, enforcement, and rules and regulations for air quality. Staff also presented future plans for regulatory changes to 40 industrial representatives, consultants, and science members at the Industrial Environmental Coalition of Orange County's (IECOC), 2019 Annual Regulatory Update Meeting in Costa Mesa.

January 25

Fifteen students from Whitter College's Environmental Justice Study visited SCAQMD, and staff presented information on SCAQMD, and its Environmental Justice Program and activities. The visit also included a tour of the SCAQMD laboratory, and SCAQMD alternative clean fuel vehicles and alternative fuel stations.

COMMUNICATION CENTER STATISTICS

The Communication Center handles calls on SCAQMD's main line, the 1-800-CUT-SMOG® line, the Spanish line, and after-hours calls to each of those lines. Total calls received in the month of January were:

Calls to SCAQMD's Main Line and 1-800-CUT-SMOG® Line	3,872
Calls to SCAQMD's Spanish-language Line	<u>27</u>
Total Calls	3,899

PUBLIC INFORMATION CENTER STATISTICS

The Public Information Center (PIC) handles phone calls and walk-in requests for general information. Information for the month of January is summarized below:

Calls Received by PIC Staff	181
<u>Calls to Automated System</u>	<u>12</u>
Total Calls	193
Visitor Transactions	300
Email Advisories Sent emails	15,761

BUSINESS ASSISTANCE

SCAQMD notifies local businesses of proposed regulations so they can participate in the agency's rule development process. SCAQMD also works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provides personalized assistance to small businesses both over the telephone and via on-site consultation, as summarized below:

- Provided permit application assistance to 193 companies
- Processed 63 Air Quality Permit Checklists
- Conducted 1 free on-site consultation

Types of businesses assisted

Auto Body Shops	Dry Cleaners	Furniture Refinishing Facilities
Plating Facilities	Gas Stations	Manufacturing Facilities
Auto Repair Centers	Restaurants	Printing Facilities
Engineering, Construction, & Architecture Firms		

MEDIA RELATIONS

The Media Office handles all SCAQMD outreach and communications with television, radio, newspapers and all other publications and media operations.

Total Media Inquiries: 66

No-Burn Alerts: 5

Press Releases/Air Quality Advisories Issued: 3

Major Media Topics for January

(All inquiries closed unless noted as pending)

- USS Iowa – Random Lengths requested further information on a 2014 Stipulated Order for Abatement regarding a diesel generator on the USS Iowa berthed in San Pedro. Pending.
- Torrance Refinery – The Daily Breeze inquired whether TRC had exceeded its SO_x flaring target for 2018. Staff provided information and the agency's responses to flaring at the Torrance Refinery.
- Modified Hydrofluoric (MHF) Acid – The L.A. Times sought information about the Board's possible actions regarding the risks of MHF and the number of leaks that have occurred at the Valero and Torrance refineries. The Long Beach Post sought information regarding Rule 1410 working group meetings and how the rule is developed.
- KORE Infrastructure project, Rialto – KCBS requested an update on the status of the KORE project in Rialto. The reporter also requested clarification of records of payments from SCAQMD to KORE.
- No-burn alert – Spectrum News 1, KNX 1070, KPCC/NPR, KCRW and other local news stations requested interviews regarding the weather conditions that necessitate

a no-burn alert. Staff also conducted a live radio interview with KPCC/NPR regarding the Check Before You Burn program and No-Burn days.

- Incentive Funding – As a result of the January 4 press release, the L.A. Business Journal inquired about private companies in L.A. County included in the \$47M incentive funding. L.A. Times requested updated numbers on the progress toward the projected \$14 billion needed for attainment under the 2016 AQMP/Financial Incentives Funding Plan.
- U.S. EPA Shutdown/Furlough – E&E News inquired about the effects the federal government shutdown is having on state and local agencies, specifically in regard to the absence of U.S. EPA representation in conference calls.
- Coastal Odors – Long Beach Post inquired about complaints and SCAQMD's response to natural gas-type odors in downtown Long Beach.
- Fenceline Monitoring – IWP News inquired as to whether there had been a recent deadline for comments on fenceline monitoring proposals, as well as whether fenceline monitoring was a part of AB 617.
- Mobile Source Emissions – San Diego Union-Tribune inquired about SCAQMD's proposed indirect source regulations, and spoke with staff for an overview of the topic.
- SCAQMD Compliance Trends – The L.A. Times had follow-up questions about information that staff previously provided.
- Sherwin Williams lawsuit – SCNG requested information regarding a lawsuit filed by SCAQMD against Sherwin Williams, regarding violations of SCAQMD VOCs regulations. Staff provided a copy of the lawsuit.
- RECLAIM – Argus Media requested to speak with staff regarding the sunset of the RECLAIM program, including a timeline. Additionally, the reporter requested clarification of related rules which might be adopted by SCAQMD this year in conjunction with the sunset of the program. Staff provided information in response to the request.
- West Long Beach – Staff was interviewed by the Long Beach Post regarding SCAQMD's AB 617 activities in west Long Beach.
- Sunshine Canyon NOVs – Provided information from SCAQMD website to Santa Clarita Signal on NOVs and complaints related to Sunshine Canyon Landfill.

News Releases

- SCAQMD Awards More Than \$47 Million in Incentive Funds to Implement and Demonstrate Cleaner Technologies and Fuels to Reduce Air Pollution - January 4, 2019.
- Building Upon the Dream - A Martin Luther King, Jr. Day of Service Forum - January 19, 2019
- SCAQMD Provides Incentives to Buy Zero-Emission Commercial Electric - January 31, 2019

Media Campaigns

Google Awards Campaign 2019

- The Google AdWords campaign received 22,763 clicks, 15.89 million impressions, and 5.49 million views during January.

Check Before You Burn 2018/19

- 13 total No-Burn Days called to date in current season
- 5000 door hangars delivered in San Pedro and Redlands.

OUTREACH TO COMMUNITY GROUPS AND FEDERAL, STATE, AND LOCAL GOVERNMENTS

Field visits and/or communications were conducted with elected officials or staff from the following cities:

Alhambra	Fullerton	Perris
Aliso Viejo	Huntington Beach	Rancho Palos Verdes
Anaheim	Laguna Niguel	Rancho Cucamonga
Brea	Lake Forest	Rosemead
Buena Park	Los Angeles	San Bernardino
Claremont	Los Alamitos	San Gabriel
Cypress	Lomita	San Juan Capistrano
Dana Point	Mission Viejo	Torrance
Duarte	Orange	Tustin

Visits and/or communications were conducted with elected officials and/or staff from the following state and federal offices:

- | | |
|--|-------------------------------------|
| • U.S. Senator Dianne Feinstein | • Senator Anthony Portantino |
| • U.S. Senator Kamala Harris | • Assembly Member Autumn Burke |
| • U.S. Representative Nanette Barragán | • Assembly Member Sabrina Cervantes |
| • U.S. Representative Lou Correa | • Assembly Member Chris Holden |
| • U.S. Representative Ted Lieu | • Assembly Member Eduardo Garcia |
| • Senator Steven Bradford | • Assembly Member Al Muratsuchi |
| • Senator Richard Roth | • Assembly Member James Ramos |
| • Senator Alan Robbins | |

Staff represented SCAQMD and/or provided updates or a presentation to the following governmental agencies and business organizations:

Association of California Cities, Orange County
Cabazon Band of Mission Indians
California Air Resources Board
Coachella Valley Housing Coalition
Colton Public Utilities Department
Eastern Municipal Water District, Perris
Orange County Business Council
Orange County Council of Governments
Orange County Sanitation District
Orange County Transportation Authority
Riverside Transit Agency
San Bernardino Area Chamber of Commerce
San Bernardino County Transportation Authority
San Gabriel Valley Council of Governments
Santa Ana Chamber of Commerce
South Bay Association of Chambers of Commerce
South Bay Cities Council of Governments
South Orange County Economic Coalition
South Pasadena Chamber of Commerce
TSF Auto Body and Auto Repair Shop, San Bernardino
US Green Building Council, Los Angeles Chapter
Valley Industry & Commerce Association (VICA), San Fernando Valley
Western Riverside Council of Governments

Staff represented SCAQMD and/or provided updates or a presentation to the following community and educational groups and organizations:

California African American Museum, Los Angeles
Coachella Valley Environmental Justice Task Force
Rialto Unified School District High
Science, Technology, Engineering, and Mathematics (STEM) Organization

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BOARD MEETING DATE: March 1, 2019

AGENDA NO. 13

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of January 1 through January 31, 2019.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Julie Prussack
Chairman of Hearing Board

DG

Two summaries are attached: **January 2019 Hearing Board Cases and Rules From Which Variances and Orders for Abatement Were Requested in 2019**. An Index of District Rules is also attached.

The total number of appeals filed during the period January 1 to January 31, 2019 is 1.

Report of January 2019 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition/Hearing	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. Chevron Products Company Case No. 831-389 (N. Sanchez)	203(b) 2004(f)(1) 3002(c)(1)	Petitioner sought relief to repair ammonia CEMS that malfunctioned.	Not Opposed/Granted	Ex Parte EV granted commencing 1/29/19 and continuing until 1/31/19 or until the NHT1 NH3 CEMS is repaired and returned to service, whichever comes first.	None.
2. SCAQMD vs. Torrance Refining Company Case No. 6060-5 (K. Manwaring)	N/A	Status Report on upgrades to power supply system to reduce outages and resulting flaring.	Stipulated/Issued	Mod. O/A issued commencing 1/30/19 and continuing through 1/30/20. The Hearing Board shall retain jurisdiction over this matter until 1/30/20.	N/A

Acronyms

AOC: Alternative Operating Conditions
 CEMS: Continuous Emissions Monitoring System
 CO: Carbon Monoxide
 ERC: Emissions Reduction Credits
 EV: Emergency Variance
 N/A: Not Applicable
 NH3: Ammonia
 NHT1: Neptha Hydrotreater No. 1
 NOx: Oxides of Nitrogen
 O/A: Order for Abatement
 RV: Regular Variance
 SCR: Selective Catalytic Reduction
 SOx: Oxides of Sulfur
 SV: Short Variance
 TBD: To be determined

Rules from which Variances and Orders for Abatement were Requested in 2019														
	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
# of HB Actions Involving Rules														
203(b)		1												1
2004(f)(1)		1												1
3002(c)(1)		1												1

**DISTRICT RULES AND REGULATIONS INDEX
FOR 2019 HEARING BOARD CASES AS OF JANUARY 31, 2019**

REGULATION II – PERMITS

Rule 203 Permit to Operate

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004 Requirements

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements

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BOARD MEETING DATE: March 1, 2019

AGENDA NO. 14

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from January 1, 2019 through January 31, 2019, and legal actions filed by the General Counsel's Office from January 1 through January 31, 2019. An Index of District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, February 15, 2019, Reviewed

RECOMMENDED ACTION:
Receive and file this report.

Bayron T. Gilchrist
General Counsel

BTG:ew

There are no Civil Filings for January 2019

Attachments

January 2019 Penalty Report

Index of District Rules and Regulations

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office**

January 2019 Settlement Penalty Report

<u>Total Penalties</u>		
Civil Settlements:		\$178,826.95
Settlements including SEP		\$5,000.00
MSPAP Settlements:		\$25,545.00
Total Cash Settlements:		\$204,821.95
Total SEP Value:		\$5,000.00
Fiscal Year through 1 / 2019 Cash Total:		\$4,956,551.95
Fiscal Year through 1 / 2019 SEP Value Only Total:		\$265,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
84052	AGGREKO INC	203	1/11/2019	SMP	P62759 P62760	\$7,500.00
118389	ARCO AM/PM, NYGREN/CARR PROPERTIES, INC	203 461 H&S 41960.2	1/2/2019	NAS	P67222	\$3,000.00
113706	ARCO AM/PM, TIME OUT, LLC	461 H&S 41960.2	1/9/2019	NAS	P66373	\$3,000.00
1073	BORAL ROOFING LLC	2004 2012	1/24/2019	ML	P57877	\$500.00
62649	CALIFORNIA PORTLAND CEMENT CO.	403	1/24/2019	NSF	P67105 P67107 P67110	\$8,500.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
176136	COSTA MESA COLLISION AND AUTO PAINTING <i>Suspended Penalty of \$750.00--the Facility shall remain in full compliance until January 18, 2021.</i>	203(a)	1/22/2019	BST	P63612	\$1,500.00
7411	DAVIS WIRE CORP	2004 2012	1/24/2019	ML	P59282 P63721 P64417	\$10,500.00
125579	DIRECTV	2004 2012	1/24/2019	ML	P57876	\$3,000.00
158700	GAMA CONTRACTING SVCS INC	221 1403	1/11/2019	NAS	P65907	\$10,176.95
142090	GATEGOURMET	2202	1/23/2019	SH	P64802	\$1,500.00
132299	JACCK OIL INC.	461	1/9/2019	NAS	P66374	\$3,000.00
175638	KB ENVIRONMENTAL, INC.	1403	1/8/2019	BST	P64854	\$900.00
550	LA CO., INTERNAL SERVICE DEPT	2012 2012 Appen A	1/24/2019	ML	P57891 P60273 P66202	\$2,000.00
115314	LONG BEACH GENERATION LLC	2004 2012 Appen A	1/24/2019	ML	P57095	\$750.00
8073	METROPOLITAN STEVEDORE COMPANY	203(b) 1155	1/24/2019	ML	P65101	\$2,500.00
51232	NEILL AIRCRAFT CO	203	1/24/2019	ML	P64211	\$20,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
117882	NELSON NAMEPLATE COMPANY	3002 3003	1/22/2019	NAS	P61725 P62496	\$5,000.00
72937	P. KAY METAL , INC.	203 221 1147 1420.2	1/24/2019	TRB	P64530 P64531	\$10,000.00
800168	PASADENA CITY, DWP	2012 2012 Appen A	1/11/2019	SH	P64412	\$2,000.00
4242	SAN DIEGO GAS & ELECTRIC	203(b) 2004(f)(1) 3002(c)(1)	1/24/2019	ML	P57094	\$1,000.00
117807	SERFAS SERVICE STN/ARCO #81851	461 H&S 41960.2	1/9/2019	NAS	P67678	\$3,000.00
133820	SHERATON TOWNHOUSE, L.P.	203 1146.2	1/11/2019	DH	P66804	\$25,000.00
176122	TECHNISOIL GLOBAL, INC	314	1/25/2019	BST	P67004	\$500.00
11119	THE GAS CO./ SEMPRA ENERGY	2004	1/24/2019	NSF	P67361	\$4,000.00
185848	VAN OWEN HOLDINGS LLC _ ROBERT ASSIL	1403	1/16/2019	SMP	P61121	\$50,000.00
Total Civil Settlements: \$178,826.95						

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Supplemental Environmental Project (SEP) Settlement:						
52753	OC WASTE & RECYCLING, PRIMA DESHECHA	402	1/31/2019	NAS	P63076	\$5,000.00
	<i>SEP to be completed by 12/31/19 or the Facility will pay the SEP value of \$5,000</i>	H&S 41700				

Total Settlements including SEP: \$5,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP Settlements						
179771	"A" CLEANERS	1421	1/17/2019	GC	P63865	\$350.00
154763	21ST CENTURY GROUP,INC. DBA EUCLID CHEVR	461	1/17/2019	GC	P63225	\$550.00
182903	7-ELEVEN INC #37981	461	1/17/2019	TF	P66357	\$1,200.00
155848	ARCO #06085 - CALIFORNIA FUEL DISPENSING	461	1/31/2019	GC	P68102	\$450.00
		H&S 41960.2				
174636	ARCO #42010, TREASURE FRANCHISE COMPANY,	461	1/17/2019	GC	P64979	\$400.00
163098	BEVERLY 76	461	1/17/2019	GC	P65261	\$720.00
184112	F ROBERTS, INC.	1403	1/31/2019	GC	P64526	\$1,700.00
157786	GAMMO CORPORATION	461	1/31/2019	GC	P65744	\$720.00
155593	HENKELS & MCCOY, INC.	13 CCR 2460	1/17/2019	GC	P66751	\$2,080.00
184841	KB HOMES INLAND EMPIRE/BELLANZA	403	1/17/2019	GC	P64758	\$3,400.00
186810	LENDERS CONSTRUCTION INC	1403	1/31/2019	TF	P66702	\$2,400.00
127674	MEESE, INC.	1147	1/31/2019	TF	P65169	\$1,600.00
181257	MONTEBELLO CONTAINER COMPANY, LLC	1146	1/17/2019	TF	P65171	\$1,600.00
135002	MONTY CLEANERS, DAVID HYO HYUN	1421	1/31/2019	TF	P67551	\$50.00
180105	MY GOODS MARKET #5706	461	1/17/2019	TF	P68154	\$1,500.00
119710	NOR-CAL BEVERAGE COMPANY, INC.	1146	1/17/2019	TF	P65165	\$1,600.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
168542	OAKRIDGE LANDSCAPE INC.	13 CCR 2460	1/17/2019	TF	P67655	\$800.00
112314	PRESSURE GROUT COMPANY	203(a) 13 CCR 2453 17 CCR 93116.3	1/31/2019	TF	P66755	\$2,200.00
187163	ROCKRIDGE RESOURCES INC	461	1/17/2019	TF	P63228	\$400.00
187163	ROCKRIDGE RESOURCES INC	203(a)	1/17/2019	TF	P63229	\$500.00
165523	VORSTEINER, INC.	109 201 203(a)	1/31/2019	TF	P63876	\$1,125.00
175221	WASSER FILTRATION INC., DBA PACIFIC PRES	203	1/31/2019	TF	P65770	\$200.00

Total MSPAP Settlements: \$25,545.00

DISTRICT'S RULES AND REGULATIONS INDEX FOR JANUARY 2019 PENALTY REPORT

REGULATION I - GENERAL PROVISIONS

Rule 109 Recordkeeping for Volatile Organic Compound Emissions

REGULATION II - PERMITS

Rule 201 Permit to Construct

Rule 203 Permit to Operate

Rule 221 Plans

REGULATION III - FEES

Rule 314 Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

Rule 402 Nuisance

Rule 403 Fugitive Dust - Pertains to solid particulate matter emitted from man-made activities

Rule 461 Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers,
Steam Generators, and Process Heaters

Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers

Rule 1147 NOx Reductions from Miscellaneous Sources

Rule 1155 Particulate Matter Control Devices

REGULATION XIV - TOXICS

Rule 1403 Asbestos Emissions from Demolition/Renovation Activities

Rule 1415 Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems

Rule 1420.2 Emission Standards for Lead from Metal Melting Facilities

Rule 1421 Control of Perchloroethylene Emissions from Dry Cleaning Operations

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004 RECLAIM Program Requirements
Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions
Rule 2012
Appendix A Protocol for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions

REGULATION XXII ON-ROAD MOTOR VEHICLE MITIGATION

Rule 2202 On-Road Motor Vehicle Mitigation Options

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements for Title V Permits
Rule 3003 Applications

CALIFORNIA HEALTH AND SAFETY CODE

41700 Violation of General Limitations
41960.2 Gasoline Vapor Recovery

CALIFORNIA CODE OF REGULATIONS

13 CCR 2453 Portable Equipment Application Process
13 CCR 2460 Portable Equipment Testing Requirements
17 CCR 93116.3 Air Resources Board - Portable Engine Air Toxics Control Measures (PE ATCM)

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BOARD MEETING DATE: March 1, 2019

AGENDA NO. 15

REPORT: Lead Agency Projects and Environmental Documents Received By SCAQMD

SYNOPSIS: This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between January 1, 2019 and January 31, 2019, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, February 15, 2019, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:DG:LS:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period January 1, 2019 through January 31 2019 is included in Attachment A. A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B. A total of 73 CEQA documents were received during this reporting period and 35 comment letters were sent. Notable projects to highlight in this report include the Adoption of Regulations to Implement SB 1383 - Short Lived Climate Pollutants Organic (SLCP) Waste Methane Emission Reduction Requirements in the State of California and the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernadine, and Ventura.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. As required by the Environmental Justice

Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify, for each project, the dates of the public comment period and the public hearing date, if applicable. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period January 1, 2019 through January 31, 2019, the SCAQMD received 73 CEQA documents. Of the total of 94 documents* listed in Attachments A and B:

- 35 comment letters were sent;
- 29 documents were reviewed, but no comments were made;
- 20 documents are currently under review;
- 0 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 10 documents were screened without additional review.

* These statistics are from January 1, 2019 to January 31, 2019 and may not include the most recent “Comment Status” updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD’s CEQA webpage at the following internet address:

<http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>.

SCAQMD Lead Agency Projects (Attachment C) – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a “project” as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for three active projects during January.

Attachments

A. Incoming CEQA Documents Log

B. Ongoing Active Projects for Which SCAQMD Has or Will Conduct a CEQA Review

C. Active SCAQMD Lead Agency Projects

ATTACHMENT A*
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

<u>SCAQMD LOG-IN NUMBER</u>	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Warehouse & Distribution Centers	The proposed project consists of construction of a 545,735-square-foot warehouse on 26.05 acres. The project is located on the southwest corner of Arrow Highway and Vincent Avenue.	Mitigated Negative Declaration	City of Irwindale	SCAQMD staff commented on 1/22/2019
LAC190104-01 5175 Vincent Avenue Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190104-01.pdf Comment Period: 12/20/2018 - 1/22/2019 Public Hearing: 1/30/2019			
Warehouse & Distribution Centers	The proposed project consists of demolition of 11,225 square feet of existing buildings and construction of a 140,000-square-foot self-storage facility on 1.61 acres. The project is located on the southwest corner of Woodley Avenue and Hart Street in the community of Van Nuys - North Sherman Oaks.	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
LAC190124-01 ENV-2018-4247: North Woodley Ave	 Comment Period: 1/24/2019 - 2/13/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of 230,292 square feet of warehouses on 14.89 acres. The project is located on the northeast corner of Decker Road and Old Oleander Avenue in the community of Mead Valley.	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 1/15/2019
RVC190111-01 Plot Plan No. 180033	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-01.pdf Comment Period: 12/7/2018 - 1/18/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of a 373,368-square-foot warehouse on 18.37 acres. The project is located on the northeast corner of Perry Street and Harvill Avenue in the community of Mead Valley.	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 1/15/2019
RVC190111-02 Plot Plan No. 180034	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-02.pdf Comment Period: 12/26/2018 - 1/18/2019 Public Hearing: N/A			

**Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.*

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

<u>SCAQMD LOG-IN NUMBER</u>	<u>PROJECT DESCRIPTION</u>	<u>TYPE OF DOC.</u>	<u>LEAD AGENCY</u>	<u>COMMENT STATUS</u>
PROJECT TITLE				
<i>Warehouse & Distribution Centers</i> RVC190115-01 General Plan Amendment GPA 18-2501, Zone Change 18-3501, and Design Review 18-7001	The proposed project consists of construction of a 146,890-square-foot warehouse on 19.69 acres. The project is located on the southwest corner of 8th Street and Lincoln Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190115-01.pdf Comment Period: 1/11/2019 - 1/31/2019 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Banning	SCAQMD staff commented on 1/24/2019
<i>Warehouse & Distribution Centers</i> RVC190122-02 Pars Global Self Storage Project	The proposed project consists of construction of a 115,000-square-foot self-storage facility on 3.3 acres. The project is located on the northeast corner of Jackson Avenue and Nutmeg Street. Comment Period: 1/17/2019 - 2/16/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Murrieta	Document reviewed - No comments sent
<i>Warehouse & Distribution Centers</i> RVC190124-02 General Plan Amendment GPA 18-2501, Zone Change 18-3501, and Design Review 18-7001	The proposed project consists of construction of a 146,890-square-foot warehouse on 19.69 acres. The project is located on the southwest corner of 8th Street and Lincoln Street. Reference RVC190115-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Banning	Document reviewed - No comments sent
<i>Warehouse & Distribution Centers</i> RVC190125-01 Conditional Use Permit No. 2019-013	The proposed project consists of construction of a 21,052-square-foot warehouse on 4.26 acres. The project is located at 33325 Bailey Park Boulevard on the southwest corner of Scott Road and Bailey Park Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-01.pdf Comment Period: 1/16/2019 - 2/11/2019 Public Hearing: N/A	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019

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<i>Warehouse & Distribution Centers</i> SBC190117-01 Alder - Baseline Road Project	The proposed project consists of construction of a 255,173-square-foot warehouse on 11.63 acres. The project is located on the northwest corner of Alder Avenue and Base Line Road. Reference SBC181221-06 Comment Period: N/A Public Hearing: 1/30/2019	Response to Comments	City of Rialto	Document reviewed - No comments sent
<i>Warehouse & Distribution Centers</i> SBC190124-04 Alder II Warehouse	The proposed project consists of construction of a 78,680-square-foot warehouse on 4.10 acres. The project is located on the northwest corner of Base Line Road and Alder Avenue. Reference SBC181221-08 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Rialto	Document reviewed - No comments sent
<i>Industrial and Commercial</i> LAC190109-01 El Monte Green Group, LLC and Green Mountain Alliance, LLC	The proposed project consists of demolition of 6,500 square feet of existing structures and remodeling of 132,908 square feet of existing commercial buildings on 4.9 acres. The project is located on the southwest corner of Baldwin Avenue and Gidley Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190109-01.pdf Comment Period: 1/8/2019 - 1/28/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of El Monte	SCAQMD staff commented on 1/15/2019
<i>Industrial and Commercial</i> LAC190110-07 French Market Project	The proposed project consists of construction of an 83,455-square-foot building for commercial, office, and retail uses with subterranean parking on 0.9 acres. The project is located on the northwest corner of Hayden Drive and Santa Monica Boulevard. Comment Period: 9/20/2018 - 11/5/2018 Public Hearing: 10/22/2018	Draft Environmental Impact Report	City of West Hollywood	Document reviewed - No comments sent

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PROJECT TITLE				
Industrial and Commercial RVC190108-01 Duke Realty - Conditional Use Permit #18-05300	The proposed project consists of construction of a parking lot with 200 tractor trailer stalls on 7.26 acres. The project is located near the southwest corner of West Perry Street and North Perris Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-01.pdf Comment Period: 12/28/2018 - 1/11/2019 Public Hearing: N/A	Site Plan	City of Perris	SCAQMD staff commented on 1/10/2019
Industrial and Commercial RVC190108-06 Duke Realty - Conditional Use Permit #18-00011	The proposed project consists of construction of a 144,000-square-foot industrial building on 7.26 acres. The project is located near the southwest corner of West Perry Street and North Perris Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-06.pdf Comment Period: 12/28/2018 - 1/11/2019 Public Hearing: N/A	Site Plan	City of Perris	SCAQMD staff commented on 1/10/2019
Industrial and Commercial RVC190122-01 Red Moon Recreational Vehicle (RV) Park	The proposed project consists of construction of a recreational vehicle parking lot with 469 pads and a 1,400-square-foot recreational building on 78.3 acres. The project is located on the southeast corner of Dillon Road and Silver Oak Lane. Comment Period: 1/15/2019 - 2/4/2019 Public Hearing: 3/6/2019	Mitigated Negative Declaration	City of Coachella	Document reviewed - No comments sent
Waste and Water-related LAC190102-05 Class 2 Permit Modification for U.S. Ecology Vernon	The proposed project consists of approval of Class 2 permit to add hazardous waste codes to existing permit to consolidate aerosol cans for transfer. The project is located at 5375 South Boyle Avenue on the northwest corner of East 54th Street and South Boyle Avenue in the City of Vernon. Comment Period: N/A Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent

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<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> LAC190115-07 Summer Flow Augmentation of Malibu Creek Project	The proposed project consists of modifications to existing water reclamation facility with installation of ammonia removal facilities and 1,270 feet of 8-inch pipeline. The project is located at 731 Malibu Canyon Road on the southwest corner of Malibu Canyon Road and Piuma Road. Comment Period: 1/14/2019 - 2/12/2019 Public Hearing: N/A	Mitigated Negative Declaration	Las Virgenes - Triunfo Joint Powers Authority	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190122-04 AAD Distribution and Dry Cleaning Services, Inc.	The proposed project consists of development of supplemental remedial actions to clean up residual perchloroethylene in the soils through installation of a vapor barrier, a passive soil vapor venting system, and a land use covenant agreement with a monitoring program. The project is located at 2306 East 38th Street on the southwest corner of East 38th Street and South Santa Fe Avenue in the City of Vernon. Comment Period: 1/21/2019 - 2/18/2019 Public Hearing: N/A	Draft Remedial Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190124-03 Culver Boulevard Realignment and Stormwater Treatment Project	The proposed project consists of roadway improvements to a 0.45-mile segment of Culver Boulevard and construction of a subsurface stormwater treatment capture facility on 1.6 acres. The project is located along Culver Boulevard between Sepulveda Boulevard and Elenda Street. Reference LAC181218-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Culver City	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190125-03 East West Valley Interceptor Sewer Project	The proposed project consists of construction of 15,785 linear feet of pipeline ranging in diameter from 24 to 48 inches. The project is located along Victoria Boulevard between Vineland Avenue and Haskell Avenue in the communities of North Hollywood - Valley Village and Van Nuys - North Sherman Oaks. Comment Period: 1/25/2019 - 2/25/2019 Public Hearing: N/A	Notice of Preparation	City of Los Angeles	Under review, may submit written comments

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Waste and Water-related ORC190125-04 Construction and Management of an Artificial Reef in the Pacific Ocean near San Clemente, California: Wheeler North Reef Expansion Project	The proposed project consists of deposition of 175,000 tons of quarried rock to expand existing 175-acre Wheeler North Reef to create 210 acres of additional kelp reef. The project is located on submerged lands offshore of the City of San Clemente. Reference ORC181204-07, ORC140403-10, ORC130328-01, and ORC100330-05 Comment Period: N/A Public Hearing: 2/4/2019	Final Subsequent Environmental Impact Report	California State Land Commission	Document reviewed - No comments sent
Waste and Water-related RVC190111-07 Murrieta Road Booster Pump Station Replacement Project	The proposed project consists of demolition of existing booster pump station (BPS) and construction of new BPS with one of two options. Option one includes construction of new BPS at a new location that is 3,000 feet north of the existing site. Option two includes construction of new BPS at the same location. The project will also include construction of a 1,000-square-foot BPS building and pipeline with pumping capacity of 11,400 gallons per minute. The project is located along Murrieta Road between Case Road and Ethanac Road. Comment Period: 12/27/2018 - 2/7/2019 Public Hearing: 2/20/2019	Notice of Intent to Adopt a Mitigated Negative Declaration	Eastern Municipal Water District	Document reviewed - No comments sent
Waste and Water-related RVC190122-12 Lake Perris Seepage Recovery Project	The proposed project consists of installation of six water recovery wells and one 24-inch pipeline that would connect to the Colorado River Aqueduct. The project is located on the northeastcorner of Bradley Road and East Rider Street in the City of Perris. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190122-12.pdf Comment Period: 1/14/2019 - 2/13/2019 Public Hearing: 1/29/2019	Notice of Preparation	Department of Water Resources	SCAQMD staff commented on 2/12/2019
Waste and Water-related SBC190102-04 Layne Christensen Redlands Project	The proposed project consists of development of remedial actions to remove and clean up contaminated soil with dieldrin. The project is located at 1675 West Park Avenue in the City of Redlands. Comment Period: 12/26/2018 - 1/24/2019 Public Hearing: N/A	Draft Removal Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related SBC190122-03 Wineville Basin Routine Maintenance Project	The proposed project consists of performance of annual routine maintenance activities, inspections, and vector and vegetation control on 50 acres. The project is located on the northwest corner of Wineville Avenue and Francis Street in the City of Ontario. Comment Period: 1/15/2019 - 2/15/2019 Public Hearing: N/A	Mitigated Negative Declaration	County of San Bernardino	Document reviewed - No comments sent
Transportation LAC190102-03 Ramona Boulevard/Valley Boulevard Intersection Improvement Project	The proposed project consists of construction of street medians and roadway improvements to Ramona Boulevard. The project is located at the intersection of Valley Boulevard and Valley Mall. Comment Period: 12/27/2018 - 1/28/2019 Public Hearing: 2/5/2019	Notice of Intent to Adopt a Mitigated Negative Declaration	City of El Monte	Document reviewed - No comments sent
Transportation ORC190102-12 State Route 91 Improvement Project between State Route 57 and State Route 55	The proposed project consists of construction of one 12-foot general purpose lane on State Route (SR) 91 and one 10-foot outside shoulder between SR-57 and SR-55. The project will also include restoration of auxiliary lanes and widening of SR-91 over the Santa Ana River. The project is located on SR-91 from Post Mile (PM) 4.8 to PM R10.4, SR-57 from PM 15.6 to PM 16.4, and SR-55 from PM 17.5 to PM R17.9 in the cities of Anaheim, Fullerton, Orange, and Placentia in Orange County. Comment Period: 11/20/2018 - 12/21/2018 Public Hearing: N/A	Notice of Intent to Adopt a Negative Declaration (Received after closing period)	California Department of Transportation	Document reviewed - No comments sent
Transportation RVC190118-04 Interstate 15 Corridor Project	The proposed project consists of construction of tolled express lanes on a 14.7-mile segment of Interstate 15 from 0.3 miles south of Cantu-Galleano Ranch Road (Post Mile 49.8) to 1.2 miles north of Duncan Canyon Road (Post Mile 12.2). The project traverses through the cities of Eastvale, Jurupa Valley, and Fontana in the counties of Riverside and San Bernardino. Reference RVC180220-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	California Department of Transportation	Document reviewed - No comments sent

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PROJECT TITLE				
<i>Institutional (schools, government, etc.)</i> RVC190102-07 North District Development Plan	The proposed project consists of construction of student housing facilities with a total of 6,000 beds on 55 acres. The project is located at 900 University Avenue near the southwest corner of Aberdeen Drive and North Campus Drive in the City of Riverside. Reference RVC180621-05 Comment Period: 12/19/2018 - 2/1/2019 Public Hearing: 1/22/2019	Notice of Availability of a Draft Environmental Impact Report	Regents of the University of California	Document reviewed - No comments sent
<i>Institutional (schools, government, etc.)</i> RVC190102-10 Longfellow Elementary School Expansion Project	The proposed project consists of demolition of two residential units, one inn, and 12 portable classrooms. The project will also include construction of three buildings with 12 classrooms and modernization of six buildings. The project is located at 3610 Eucalyptus Avenue on the southwest corner of 6th Street and Franklin Avenue in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190102-10.pdf Comment Period: 12/21/2018 - 1/21/2019 Public Hearing: 1/14/2019	Notice of Preparation	Riverside Unified School District	SCAQMD staff commented on 1/15/2019
<i>Institutional (schools, government, etc.)</i> RVC190118-03 Polytechnic High School Project	The proposed project consists of construction of two sports fields with 200 seats on 11.19 acres. The project is located on the northwest corner of Gloucester Way and Chatham Drive in the City of Riverside. Comment Period: 1/22/2019 - 2/22/2019 Public Hearing: 1/30/2019	Notice of Preparation	Riverside Unified School District	Under review, may submit written comments
<i>Institutional (schools, government, etc.)</i> SBC190115-02 Church of the Woods Project	The proposed project consists of construction of a 68,401-square-foot church, a 1,500-square-foot maintenance building, a 7,838-square-foot water retention basin, and a 54,000-square-foot sports field on 27.12 acres. The project will also include 13.5 acres of open space. The project is located on the northwest corner of State Route 18 and Daley Canyon Road in the community of Rimforest. Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A	Notice of Availability of a Draft Revised Environmental Impact Report	County of San Bernardino	Under review, may submit written comments

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<i>Institutional (schools, government, etc.)</i> SBC190118-01 Family Resources Center and District Police Headquarters Project	The proposed project consists of demolition of existing church and motel, and construction of a 19,020-square-foot family resource center and a 15,772-square-foot police headquarters on 4.33 acres. The project is located at 777 North F Street, and 736 and 746 North E Street on the northeast corner of West 7th Street and North F Street. Reference SBC180821-03 Comment Period: 1/17/2019 - 3/4/2019 Public Hearing: N/A	Draft Environmental Impact Report	San Bernardino City Unified School District	Under review, may submit written comments
<i>Medical Facility</i> LAC190102-08 West Los Angeles Medical Center Campus Master Plan	The proposed project consists of redevelopment and consolidation of 95 buildings totaling 2.82 million square feet on 388 acres. The northern portion of the project is located on the northeast corner of San Vicente Boulevard and Wilshire Boulevard. The southern portion of the project is located near the southwest corner of Interstate 405 and Wilshire Boulevard in the City of Los Angeles. Comment Period: 12/13/2018 - 1/29/2019 Public Hearing: N/A	Draft Program Environmental Impact Statement	United States Department of Veterans Affairs	Document reviewed - No comments sent
<i>Retail</i> LAC190111-03 Venice Place Project	The proposed project consists of demolition of 5,253 square feet of existing buildings and construction of 63,891 square feet of retail, office, and commercial uses on 1.1 acres. The project is located on the northeast corner of Abbot Kinney Boulevard and Broadway Street in the community of Venice. Reference LAC170113-03 Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
<i>Retail</i> RVC190108-15 Tower Market Rancho Mirage	The proposed project consists of construction of a gasoline service station with 12 pumps and a 5,300-square-foot convenience store on 3.25 acres. The project is located on the northeast corner of Monterey Avenue and Frank Sinatra Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-05.pdf Comment Period: 1/4/2019 - 2/4/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Rancho Mirage	SCAQMD staff commented on 1/24/2019

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PROJECT TITLE				
Retail	The proposed project consists of construction of a hotel with 108 rooms, 140 residential units, and retail uses totaling 601,816 square feet on three acres. The project is located on the southeast corner of Dune Palms Road and State Route 111. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-06.pdf Comment Period: 1/2/2019 - 1/22/2019 Public Hearing: 1/22/2019	Mitigated Negative Declaration	City of La Quinta	SCAQMD staff commented on 1/18/2019
RVC190111-06				
Highway 111 and Dune Palms Road Specific Plan Amendment				
Retail	The proposed project consists of construction of a mixed-use development with 482 residential units, a gasoline service station with 12 pumps, 49,500 square feet of retail uses, and two hotels with 229 rooms on 35.4 acres. The project is located on the northeast corner of State Route 60 and North Orange Street. Comment Period: 1/15/2019 - 3/1/2019 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Riverside	Under review, may submit written comments
RVC190115-03				
The Exchange				
General Land Use (residential, etc.)	The proposed project consists of construction of a 81,772-square-foot building with 119 residential units on 0.61 acres. The project is located on the northwest corner of Santa Monica Boulevard and Beloit Avenue in the community of West Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190102-02.pdf Comment Period: 12/27/2018 - 1/28/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/16/2019
LAC190102-02				
ENV-2018-3039: 11261 West Santa Monica Boulevard				
General Land Use (residential, etc.)	The proposed project consists of construction of a 345,700-square-foot building with 120 hotel rooms, 100 residential units, 165,000 square feet of commercial uses, and 42,000 square feet of cultural uses on 1.2 acres. The project is located on the northeast corner of Ocean Avenue and Santa Monica Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190102-06.pdf Comment Period: 12/28/2018 - 1/30/2019 Public Hearing: 1/10/2019	Notice of Preparation	City of Santa Monica	SCAQMD staff commented on 1/24/2019
LAC190102-06				
Ocean Avenue Project				

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<i>General Land Use (residential, etc.)</i> LAC190102-14 Santa Monica - Barrington Mixed-Use Project	The proposed project consists of construction of a 316,520-square-foot building with 180 residential units and subterranean parking. The project is located at 11650 West Santa Monica Boulevard on the southwest corner of Santa Monica Boulevard and Barry Avenue in the community of West Los Angeles. Reference LAC160607-02, LAC160517-01, and LAC160510-04	Notice of Availability of a Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 12/27/2018 - 2/10/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i> LAC190102-15 West Village at Calabasas Project	The proposed project consists of construction of 15 buildings with 180 residential units and a 5,867-square-foot retail center. The project will also include 66.1 acres of open space on 77.22 acres. The project is located at 4790 Las Virgenes Road on the southeast corner of Agoura Road and Las Virgenes Road. Reference LAC170901-13	Draft Environmental Impact Report	City of Calabasas	Document reviewed - No comments sent
	Comment Period: 12/21/2018 - 2/19/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i> LAC190104-02 ENV-2018-4709: 10247 North Variel Avenue	The proposed project consists of demolition of a single-family dwelling unit and construction of 32 residential units on 0.52 acres. The project is located on the southwest corner of Variel Avenue and Devonshire Street in the community of Chatsworth - Porter Ranch.	Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 1/3/2019 - 1/23/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i> LAC190104-04 ENV-2013-3747-EIR: Landmark Apartments Project	The proposed project consists of demolition of a 42,900-square-foot building and construction of a 34-story residential building with 376 units on 2.8 acres. The project is located at 11750-11770 Wilshire Boulevard on the northwest corner of South Barrington Avenue and Wilshire Boulevard in the community of Brentwood. Reference LAC181004-04, LAC170711-10, LAC160901-01, LAC160429-03, and LAC140307-04	Final Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			

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PROJECT TITLE				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of two existing buildings and construction of 36 residential units and subterranean parking. The project is located on the southeast corner of Mission Street and Fairview Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190108-02.pdf Comment Period: 1/7/2019 - 2/5/2019 Public Hearing: N/A	Notice of Preparation	City of South Pasadena	SCAQMD staff commented on 1/24/2019
LAC190108-02 Mission Bell Mixed-Use Project				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 234 residential units and 14,184 square feet of commercial uses on 1.89 acres. The project is located on the southwest corner of Lankershim Boulevard and Riverside Drive in the community of Toluca Lake. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190111-04.pdf Comment Period: 1/10/2019 - 1/30/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/24/2019
LAC190111-04 ENV-2016-3904: Lankershim and Riverside Project				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 52 residential units on 2.44 acres. The project is located on the southwest corner of Bermuda Street and Sepulveda Boulevard in the community of Mission Hills. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190116-01.pdf Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/6/2019
LAC190116-01 ENV-2017-628: 15418 Bermuda Street				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of existing structures and construction of 18 residential units on 11.92 acres. The project is located on the northeast corner of Old Santa Susana Pass Road and Calle Milagros in the community of Chatsworth-Porter Ranch. Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
LAC190116-02 ENV-2016-3175: 1000 N. Old Santa Susana Pass Road				

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PROJECT TITLE				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 175 residential units and 23,665 square feet of recreational uses on eight acres. The project is located on the northeast corner of South Central Avenue and East Victoria Street.	Mitigated Negative Declaration	City of Carson	SCAQMD staff commented on 2/14/2019
LAC190122-06 Victoria Greens	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190122-06.pdf Comment Period: 1/17/2019 - 2/15/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of existing structures and construction of a 121,639-square-foot building with 93 residential units on 1.7 acres. The project is located at 609 North Spurgeon Street on the northwest corner of French Street and East Santa Ana Boulevard.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Santa Ana	Document reviewed - No comments sent
ORC190110-01 Legacy Square Project	 Comment Period: 1/8/2019 - 1/29/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of a 33,200-square-foot medical facility and construction of 31 residential units totaling 53,060 square feet on 1.76 acres. The project is located at 9861 11th Street on the southeast corner of Brookhurst Street and 11th Street.	Mitigated Negative Declaration	City of Garden Grove	Document reviewed - No comments sent
ORC190115-04 11th Street Townhome Project	 Comment Period: 1/11/2019 - 1/31/2019 Public Hearing: 2/7/2019			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of a 68,000-square-foot parking lot and construction of 39 residential units on 1.57 acres. The project is located on the northeast corner of North Street and Pauline Street.	Mitigated Negative Declaration	City of Anaheim	SCAQMD staff commented on 1/24/2019
ORC190115-05 Downtown Anaheim 39 Residential Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC190115-05.pdf Comment Period: 1/10/2019 - 1/29/2019 Public Hearing: N/A			

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INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>General Land Use (residential, etc.)</i> ORC190115-06 Big Canyon Coastal Habitat Restoration and Adaptation - Phase 2A	The proposed project consists of restoration of historic riparian habitat with development of erosion quality measures and trail improvements on 11.3 acres. The project is located at 1900 Back Bay Drive on the southwest corner of Domingo Drive and Amigos Way. Comment Period: N/A Public Hearing: 1/22/2019	Response to Comments	City of Newport Beach	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> ORC190118-02 Case No. 2018-172	The proposed project consists of demolition of existing commercial building and construction of a 70,591-square-foot building with 65 residential units on two acres. The project is located at 7122-7140 Westminster Boulevard on the southeast corner of Westminster Boulevard and Locust Street. Comment Period: 1/14/2019 - 2/4/2019 Public Hearing: 1/23/2019	Mitigated Negative Declaration	City of Westminster	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> RVC190108-04 Vine Creek Multifamily Residential Development	The proposed project consists of construction of a 54,530-square-foot building with 60 residential units on 2.27 acres. The project is located on the northwest corner of Pujol Street and Main Street. Comment Period: 1/8/2019 - 2/7/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Temecula	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> RVC190122-05 DSRT SURF Specific Plan	The proposed project consists of construction of 88 residential units and a hotel with 350 rooms on a 5.5-acre portion of 17.69 acres. The project is located on northwest corner of Country Club Drive and Cook Street. Comment Period: 1/22/2019 - 2/20/2019 Public Hearing: N/A	Notice of Preparation	City of Palm Desert	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
General Land Use (residential, etc.) RVC190122-08 MA18141 (TTM37640 & Amendment to PUD-02 Development Plan)	The proposed project consists of design changes to a previously approved tentative tract map for future construction of 118 townhomes on 24.9 acres. The project is located on the southwest corner of Rubidoux Boulevard and 28th Street. Reference RVC181113-03, RVC15113-03, RVC160406-07, RVC161216-01, and RVC170511-02 Comment Period: 1/16/2019 - 1/28/2019 Public Hearing: 2/13/2019	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
General Land Use (residential, etc.) RVC190125-05 Menifee Lakes (Village) Specific Plan Amendment No. 8 (Specific Plan Amendment No. 2019-017)	The proposed project consists of change to zoning ordinance for future construction of 336 residential units on 31.6 acres and conservation of 37.8 acres of open space. The project is located on the northeast corner of Menifee Road and Newport Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-05.pdf Comment Period: 1/22/2019 - 2/11/2019 Public Hearing: N/A	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019
Plans and Regulations ALL190104-03 Adoption of Regulations to Implement SB 1383 - Short Lived Climate Pollutants Organic (SLCP) Waste Methane Emission Reduction Requirements	The proposed project consists of addition of Chapter 12 - Short-lived Climate Pollutants to the California Code of Regulations, Title 14 (14 CCR), Division 7, and Title 27 (27 CCR), Division 2 to implement and/or modify organic waste handling, processing, and disposal requirements pursuant to Senate Bill 1383 requirements. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ALL190104-03.pdf Comment Period: 12/11/2018 - 1/10/2019 Public Hearing: 1/31/2019	Notice of Preparation	California Department of Resources Recycling and Recovery	SCAQMD staff commented on 1/10/2019
Plans and Regulations ALL190123-01 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy	The proposed project consists of development of a long-range transportation plan and land use policies, strategies, actions, and programs to identify and accommodate current and future mobility goals, policies, and needs for the next 25 years. The project is located on 38,000 square miles encompassing six counties including Imperial, Los Angeles, Orange, Riverside, San Bernadine, and Ventura. Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: 2/13/2019	Notice of Preparation	Southern California Association of Governments	Under review, may submit written comments

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**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Plans and Regulations</i> LAC190102-13 Citywide Zoning Ordinance	The proposed project consists of development of a citywide ordinance for residential, mixed-use, commercial, industrial, and other zoning districts to be consistent with land use changes adopted by the City General Plan. Comment Period: 12/26/2018 - 1/26/2019 Public Hearing: N/A	Notice of Intent to Adopt a Negative Declaration	City of Walnut	Document reviewed - No comments sent
<i>Plans and Regulations</i> LAC190122-09 Alhambra General Plan, Vision 2040 - A Community Mosaic	The proposed project consists of updates to City General Plan for the next 20 years. The project is located southwest of the Huntington Drive and North Granada Avenue intersection. Reference LAC180803-05 Comment Period: N/A Public Hearing: 1/22/2019	Response to Comments	City of Alhambra	Document reviewed - No comments sent
<i>Plans and Regulations</i> LAC190125-02 Los Angeles Zoo Vision Plan	The proposed project consists of development of vision and design principles to guide future development on 133 acres, including modernization of buildings and infrastructure, animal care and guest amenities, exhibit space, and administrative and services facilities. The project will also include construction of support visitor-serving buildings and parking facilities to accommodate increasing visitation over a 20-year period. The project is located at 5333 Zoo Drive on the southwest corner of Zoo Drive and Western Heritage Way in the community of Hollywood. Comment Period: 1/24/2019 - 3/11/2019 Public Hearing: 2/7/2019	Notice of Preparation	City of Los Angeles	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT B*
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>General Land Use (residential, etc.)</i> ORC181219-04 Magnolia Tank Farm	The proposed project consists of construction of a 211,000-square-foot building with 215 guestrooms and 250 residential units on 28.9 acres. The project is located at 21845 Magnolia Street on the southwest corner of Hamilton Avenue and Magnolia Street. Comment Period: 12/17/2018 - 3/18/2019 Public Hearing: N/A	Draft Program Environmental Impact Report	City of Huntington Beach	Under review, may submit written comments
<i>Warehouse & Distribution Centers</i> LAC181221-03 ENV-2018-5430: 801-829 East E St.	The proposed project consists of demolition of a 3,800-square-foot building and construction of a 55,000-square-foot warehouse with a 38,400-square-foot freezer and a 7,000-square-foot cooler dock on 7.7 acres. The project is located on the northeast corner of East E Street and McFarland Avenue in the community of Wilmington-Harbor City. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181221-03.pdf Comment Period: 12/20/2018 - 1/9/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/8/2019
<i>Warehouse & Distribution Centers</i> RVC181218-03 Major Modification 17-05075 to Integra Perris Distribution Center Project	The proposed project consists of construction of 273,000 square feet of warehouse uses to be added to existing 864,000-square-foot warehouse on 10.2 acres. The project is located at 657 West Nance Street on the northeast corner of Webster Avenue and Markham Street. Reference RVC180328-01, RVC141209-09, RVC141202-06, RVC140808-04, RVC140604-03 and RVC140523-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181218-03.pdf Comment Period: 12/14/2018 - 1/28/2019 Public Hearing: N/A	Draft Supplemental Environmental Impact Report	City of Perris	SCAQMD staff commented on 1/24/2019
<i>Warehouse & Distribution Centers</i> SBC181221-06 Alder - Baseline Road Project	The proposed project consists of construction of a 255,173-square-foot warehouse on 11.63 acres. The project is located on the northwest corner of Alder Avenue and Base Line Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181221-06.pdf Comment Period: 12/21/2018 - 1/9/2019 Public Hearing: 1/30/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/8/2019
<i>Warehouse & Distribution Centers</i> SBC181221-08 Alder II Warehouse	The proposed project consists of construction of a 78,680-square-foot warehouse on 4.10 acres. The project is located on the northwest corner of Base Line Road and Alder Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181221-08.pdf Comment Period: 12/22/2018 - 1/10/2019 Public Hearing: 1/30/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/8/2019

*Sorted by Comment Status, followed by Land Use, then County, then date received.

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> LAC181221-02 ENV-2018-870: 3600 S. Hope St.	The proposed project consists of demolition of a 96,335-square-foot building and construction of a 229,741-square-foot storage building on 0.84 acres. The project is located on the southwest corner of South Hope Street and South Grand Avenue in the community of Downtown Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181221-02.pdf Comment Period: 12/21/2018 - 1/14/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/2/2019
<i>Waste and Water-related</i> LAC181204-05 De Soto Trunk Line Replacement	The proposed project consists of construction of 2.5 miles of portable water pipelines. The project is located on the northwest corner of De Soto Avenue and Roscoe Boulevard within the communities of Chatsworth-Porter Ranch and Canoga Park-Winnetka-Woodland Hills-West Hills. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-05.pdf Comment Period: 11/27/2018 - 1/11/2019 Public Hearing: N/A	Mitigated Negative Declaration	Los Angeles Department of Water and Power	SCAQMD staff commented on 1/4/2019
<i>Waste and Water-related</i> LAC181218-01 Culver Boulevard Realignment and Stormwater Treatment Project	The proposed project consists of roadway improvements to a 0.45-mile segment of Culver Boulevard and construction of a subsurface stormwater treatment capture facility on 1.6 acres. The project is located along Culver Boulevard between Sepulveda Boulevard and Elenda Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181218-01.pdf Comment Period: 12/13/2018 - 1/14/2019 Public Hearing: 1/28/2019	Mitigated Negative Declaration	City of Culver City	SCAQMD staff commented on 1/9/2019
<i>Waste and Water-related</i> LAC181219-02 Whittier Narrows Dam Safety Modification Study	The proposed project consists of development of risk reduction and remedial actions in response to safety issues at the project. The project is located on the southwest corner of Rosemead Boulevard and San Gabriel Boulevard in the City of Pico Rivera. Reference LAC130903-08 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181219-02.pdf Comment Period: 12/11/2018 - 1/28/2019 Public Hearing: 1/12/2019	Draft Environmental Impact Statement	United States Army Corps of Engineers	SCAQMD staff commented on 1/24/2019
<i>Transportation</i> RVC181205-09 State Route 86/Avenue 50 New Interchange Project	The proposed project consists of construction of an overcrossing bridge of 326 feet in length and 122 feet in width, a bridge structure of 605 feet in length and 120 feet in width, and an interchange at State Route 86 and Avenue 50 from Post Mile (PM) R19.2 to PM R21.6. The project will also include widening of a portion of Avenue 50 from two lanes to six lanes. The project is located at the existing interchange between State Route 86 and Dillon Road interchange in the City of Coachella. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181205-09.pdf Comment Period: 12/6/2018 - 1/7/2019 Public Hearing: 12/21/2018	Mitigated Negative Declaration	California Department of Transportation	SCAQMD staff commented on 1/4/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Institutional (schools, government, etc.)</i> SBC181212-02 Mental Health Crisis Facility	The proposed project consists of demolition of existing building and construction of a 47,000-square-foot mental health treatment facility with 50 beds on three acres. The project is located at 14901 Central Avenue near the southeast corner of Central Avenue and Eucalyptus Avenue in the City of Chino. Reference SBC180711-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181212-02.pdf Comment Period: 12/6/2018 - 1/28/2019 Public Hearing: 1/10/2019	Notice of Availability of a Draft Environmental Impact Report	California Department of Corrections and Rehabilitation	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> LAC181204-04 California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48-acre portion of 19.36 acres. The project is located on the northeast corner of East 10th Street and North Todd Avenue. Reference LAC180627-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-04.pdf Comment Period: 11/28/2018 - 1/28/2019 Public Hearing: 1/16/2019	Notice of Availability of a Draft Environmental Impact Report	City of Azusa	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> LAC181204-10 9034 Sunset Boulevard Project	The proposed project consists of demolition of five residential units and construction of a 496,137-square-foot building with 237 hotel rooms, 10 residential units, and subterranean parking on 1.29 acres. The project is located southeast corner of North Doheny Drive and West Sunset Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-10.pdf Comment Period: 11/29/2018 - 1/11/2019 Public Hearing: 12/12/2018	Notice of Preparation	City of West Hollywood	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> LAC181219-03 Reese Davidson Community Project	The proposed project consists of construction of a 105,770-square-foot building with 140 residential units on 2.66 acres. The project is located at 2102 South Pacific Avenue on the southeast corner of South Pacific Avenue and West 21st Street in the community of Venice. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181219-03.pdf Comment Period: 12/18/2018 - 1/21/2019 Public Hearing: 1/14/2019	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> LAC181221-10 713 East 5th Street Project	The proposed project consists of demolition of a 14,475-square-foot building and construction of a 33,007-square-foot building with 51 residential units on 0.13 acres. The project is located near the northwest corner of Stanford Avenue and 5th Street in the community of Central City. Reference LAC180601-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC181221-10.pdf Comment Period: 12/20/2018 - 2/4/2019 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 2/1/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>General Land Use (residential, etc.)</i> ORC181205-10 Newport Crossings Mixed-Use Project	The proposed project consists of demolition of a 58,277-square-foot shopping center, and construction of 350 residential units, a 2,000-square-foot restaurant, 5,500 square feet of commercial uses, a 0.5-acre public park, and subterranean parking on 5.7 acres. The project is located on the southeast corner of Corinthian Way and Scott Drive. Reference ORC171103-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC181205-10.pdf Comment Period: 11/30/2018 - 1/14/2019 Public Hearing: 12/6/2018	Draft Environmental Impact Report	City of Newport Beach	SCAQMD staff commented on 1/11/2019
<i>General Land Use (residential, etc.)</i> ORC181214-01 Mercury Residential Project	The proposed project consists of construction of a 171,433-square-foot building with 120 residential units. The project is located on the southeast corner of Mercury Lane and South Berry Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC181214-01.pdf Comment Period: 12/13/2018 - 1/22/2019 Public Hearing: 1/14/2019	Notice of Preparation	City of Brea	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> RVC181219-01 Change of Zone No. 07544, EIR No. 500 and Tentative Tract Map No. 36030	The proposed project consists of construction of 314 residential units on 242 acres. The project will also include 76 acres of open space. The project is located on the southeast corner of Nuevo Road and Sky Drive in the community of Nuevo. Reference RVC140610-05 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181219-01.pdf Comment Period: 12/11/2018 - 1/24/2019 Public Hearing: N/A	Draft Environmental Impact Report	Riverside County Planning Department	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> SBC181212-01 Etiwanda Heights Neighborhood & Conservation Plan Project	The proposed project consists of construction of 3,000 residential units, 180,000 square feet of commercial and retail uses, an elementary school with 600 students, and 450 acres of open space on a 1,212-acre portion of 5,388 acres. The project will also include annexation of 4,088 acres from County of San Bernardino. The project is located on the northeast corner of Base Line Road and Haven Avenue. Reference SBC180102-08 and SBC170912-13 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181212-01.pdf Comment Period: 12/4/2018 - 1/21/2019 Public Hearing: 12/12/2018	Revised Notice of Preparation	City of Rancho Cucamonga	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> SBC181218-04 Sunflower Residential Project	The proposed project consists of construction of 184 residential units on 15.95 acres. The project is located on the northwest corner of Foothill Boulevard and Spruce Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181218-04.pdf Comment Period: 12/17/2018 - 1/15/2019 Public Hearing: 2/13/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/15/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Plans and Regulations</i> LAC181120-08 Hollywood Community Plan Update	The proposed project consists of development of amendments to land use policies, land use map, zoning ordinances, and development of a community plan implementation overlay district on 13,962 acres. The project is located on the southwest of the State Highway 134 and Interstate Highway 5 junction. Reference LAC160527-06, LAC160503-16, LAC111007-01 and LAC110308-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181120-08.pdf Comment Period: 11/15/2018 - 1/31/2019 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 1/30/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JANUARY 31, 2019

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments. SCAQMD staff has reviewed the responses to comments and provided edits.	Environmental Audit, Inc.
Quemetco is proposing to modify existing SCAQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke, and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	A Notice of Preparation/Initial Study (NOP/IS) was released for a 56-day public review and comment period from August 31, 2018 to October 25, 2018, and 154 comment letters were received. Two CEQA scoping meetings were held on September 13, 2018 and October 11, 2018 in the community. SCAQMD staff is reviewing the comments received.	Trinity Consultants

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JANUARY 31, 2019

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Mira Loma Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the Selective Catalytic Reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario	SCAQMD staff provided revisions to the Draft Addendum for the consultant to incorporate, and the consultant has submitted a revised Draft Addendum, which is undergoing SCAQMD staff review.	Yorke Engineering, LLC

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 16

REPORT: Report of RFPs Scheduled for Release in March

SYNOPSIS: This report summarizes the RFPs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of March.

COMMITTEE: Administrative, February 8, 2019, Reviewed

RECOMMENDED ACTION:
Approve the release of RFPs for the month of March.

Wayne Nastri
Executive Officer

SJ:tm

Background

At its January 8, 2010 meeting, the Board approved a revised Procurement Policy and Procedure. Under the revised policy, RFPs for budgeted items over \$75,000, which follow the Procurement Policy and Procedure, no longer require individual Board approval. However, a monthly report of all RFPs over \$75,000 is included as part of the Board agenda package and the Board may, if desired, take individual action on any item. The report provides the title and synopsis of the RFP, the budgeted funds available, and the name of the Deputy Executive Officer/Asst. Deputy Executive Officer responsible for that item. Further detail including closing dates, contact information, and detailed proposal criteria will be available online at <http://www.aqmd.gov/grants-bids> following Board approval on March 1, 2019.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFPs and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFPs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov>) where it can be viewed by making the selection "Grants & Bids."

Proposal Evaluation

Proposals received will be evaluated by applicable diverse panels of technically-qualified individuals familiar with the subject matter of the project or equipment and may include outside public sector or academic community expertise.

Attachment

Report of RFPs Scheduled for Release in March 2019

**March 1, 2019 Board Meeting
Report on RFPs Scheduled for Release on March 1, 2019**

(For detailed information visit SCAQMD's website at
<http://www.aqmd.gov/nav/grants-bids> following Board approval on March 1, 2019)

STANDARDIZED SERVICES

RFP#P2019-16	Issue RFP for Landscape Maintenance Services	OLVERA/2309
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The current SCAQMD landscape maintenance service contract expires on June 30, 2019. This action is to issue an RFP to solicit bids from firms interested in providing these services for the three-year period from July 1, 2019 through June 30, 2022. Sufficient funds will be available in the FY 2019-20 Budget and will be requested in successive fiscal years.

RFP#P2019-15	Issue RFP for Maintenance, Service, and Repairs of Heating Ventilation Air Conditioning and Refrigeration Equipment	OLVERA/2309
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The current SCAQMD maintenance service contract for HVAC and refrigeration equipment expires on June 30, 2019. This action is to issue an RFP to solicit bids from firms interested in providing these services for the three-year period from July 1, 2019 through June 30, 2022. Sufficient funds will be available in the FY 2019-20 Budget and will be requested in successive fiscal years.

 [Back to Agenda](#)

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 17

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PMF:SN:AK:EG

2019 MASTER CALENDAR

The 2019 Master Calendar provides a list of proposed or proposed amended rules for each month, with a brief description, and a notation in the third column indicating if the rulemaking is for the 2016 AQMP, Toxics, AB 617 BARCT, or Other. Projected emission reductions will be determined during rulemaking. The following symbols next to the rule number indicates if the rulemaking will be a potentially significant hearing, reduce criteria pollutants, or part of the RECLAIM transition.

** Potentially significant hearing*

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

Part of the transition of RECLAIM to a command-and-control regulatory structure

The following table summarizes changes to the schedule since the last month's Rule and Control Measure Forecast Report. Staff will continue to work with all stakeholders as these projects move forward.

1142	Marine Tank Vessel Operations
Proposed Amended Rule 1142 is being moved from TBD to October 2019 to incorporate provisions to better address VOC emissions from marine tank vessel operations.	
1407*	Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations
Proposed Amended Rule 1407 has been moved from April 2019 to June 2019 to allow time to work with stakeholders.	
1410*	Hydrogen Fluoride Use at Refineries
At the February Board Meeting, staff presented information on Proposed Rule 1410. The Board directed staff to report back to the Refinery Committee in 90 days on progress developing Proposed Rule 1410 or an MOU with the affected refineries. Proposed Rule 1410 is moved from May to November 2019, if it is decided to pursue a regulatory approach.	
1480*	Toxics Monitoring
Proposed Rule 1480 has been moved from June 2019 to September 2019 to allow additional time for staff to develop proposed concepts and work with stakeholders.	

2019 MASTER CALENDAR

Month	Title and Description	Type of Rulemaking
April		
1134*+ [#]	Emissions of Oxides of Nitrogen from Stationary Gas Turbines Proposed Amended Rule 1134 will update the NO _x emission standard to reflect Best Available Retrofit Control Technology for RECLAIM and non-RECLAIM facilities. Proposed Rule 1134 will also establish an ammonia emission limit for pollution controls with ammonia emissions, and update monitoring, reporting, and recordkeeping requirements.	AQMP/ AB 617 BARCT
1100	Implementation Schedule for NO_x Facilities Proposed Rule 1100 will establish the implementation schedule for NO _x RECLAIM facilities that are transitioning to command-and-control. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244</i>	
May		
Reg. III	Fees Proposed amendments to Regulation III will incorporate the Consumer Price Index adjustment to reflect inflation, pursuant to Rule 320. Other proposed amendments may be needed to update fees associated with existing programs and implementation of new or revised programs. <i>Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1106 ⁺ 1106.1 ⁺	Marine Coating Operations Pleasure Craft Coating Operations Rule 1106 would subsume the requirements of Rule 1106.1, revise VOC content limits for several categories in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new limits for several new categories. Rule 1106.1 is proposed to be rescinded. <i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT
June		
1407*	Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations Proposed Amended Rule 1407 will establish additional requirements to minimize point source and fugitive toxic air contaminant emissions from non-chromium metal melting operations. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics

* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
June <i>(continued)</i>		
Reg. IX Reg. X	<p>Standards of Performance for New Stationary Sources (NSPS) National Emission Standards for Hazardous Air Pollutants (NESHAPS)</p> <p>Proposed amendments to Regulations IX and X are periodically made to incorporate by reference new or amended federal standards that have been enacted by U.S. EPA for stationary sources. Regulations IX and X provide stationary sources with a single point of reference for determining which federal and local requirements apply to their specific operations.</p> <p><i>Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
July		
1138 ⁺	<p>Control of Emissions from Restaurant Operations</p> <p>Proposed Amended Rule 1138 will reduce NOx emissions from establishments utilizing commercial cooking ovens, ranges, fryers, and charbroilers.</p> <p><i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	AQMP/ AB 617 BARCT
1450	<p>Control of Methylene Chloride Emissions</p> <p>Proposed Rule 1450 will reduce methylene chloride emissions from furniture stripping and establish monitoring, reporting, and recordkeeping requirements.</p> <p><i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; and Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
Reg. XIII [#] Reg. XX	<p>New Source Review RECLAIM</p> <p>Proposed Amendments to Regulation XIII will revise New Source Review provisions to address facilities that are transitioning from RECLAIM to command-and-control. Staff may be proposing a new rule within Regulation XIII to address offsets for facilities that transition out of RECLAIM. Proposed Amendments to Regulation XX also are needed to coordinate amendments to Regulation XIII.</p> <p><i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	AQMP

* Potentially significant hearing

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Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
September		
1110.2*+^	Emissions from Stationary Internal Combustion Engines Rule 1110.2 will update the NOx emission standard to reflect Best Available Retrofit Control Technology for RECLAIM and non-RECLAIM facilities. Proposed Rule 1110.2 will also establish an ammonia emission limit for pollution controls with ammonia emissions, and update monitoring, reporting, and recordkeeping requirements.	AQMP/ AB 617 BARCT
1100	Implementation Schedule for NOx Facilities Proposed Rule 1100 will establish the implementation schedule for NOx RECLAIM facilities that are transitioning to command-and-control. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	
1147*+ 1147.1	NOx Reductions from Miscellaneous Sources NOx Reductions from Large Miscellaneous Combustion Proposed Rule 1147.1 will establish NOx emission limits to reflect Best Available Retrofit Control Technology for large miscellaneous combustion sources and will apply to RECLAIM and non-RECLAIM facilities. Proposed Amended Rule 1147 will remove equipment that will be regulated under Proposed Rule 1147.1 and evaluate the existing NOx emission limits.	Other/ AB 617 BARCT
1100	Implementation Schedule for NOx Facilities Proposed Rule 1100 will establish the implementation schedule for NOx RECLAIM facilities that are transitioning to command-and-control. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	
1480*	Toxics Monitoring Proposed Rule 1480 will establish requirements for ambient monitoring of certain metal toxic air contaminants. Proposed rule will establish applicability, on-ramps and off-ramps for ambient monitoring, and provisions to address high ambient levels. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244</i>	Toxics
October		
113*#	Monitoring, Reporting, and Recordkeeping (MRR) Requirements for NOx and SOx Sources Proposed Rule 113 will establish MRR requirements for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP

* *Potentially significant hearing*

⁺ *Reduce criteria air contaminants and assist toward attainment of ambient air quality standards*

[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
October <i>(continued)</i>		
218 ^{*#} 218.1	Continuous Emission Monitoring Continuous Emission Monitoring Performance Specifications Proposed Amended Rule 218 will revise provisions for continuous emission monitoring systems for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
1109 ^{*+##} 1109.1	Emissions of Oxides of Nitrogen from Boilers and Process Heaters in Petroleum Refineries Reduction of Emissions of Oxides of Nitrogen from Refinery Equipment Proposed Rule 1109.1 will establish NOx emission limits to reflect Best Available Retrofit Control Technology for NOx emitting equipment at petroleum refineries and related operations. Proposed Rule 1109.1 is an industry-specific rule, will establish an ammonia emission limit for pollution controls with ammonia emissions, and update monitoring, reporting, and recordkeeping requirements. Proposed Rule 1109.1 will replace Rule 1109. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ BARCT (AB 617)
1142	Marine Tank Vessel Operations Proposed Amended Rule 1142 will further address VOC emissions from marine tank vessel operations and provide clarifications. <i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
November		
N/A	Airports MOU/Ports MOU/Potential Regulation The proposed MOUs with the marine ports and commercial airports will implement the facility-based mobile source measures MOB-01 and MOB-04 from the 2016 AQMP. In the event that the MOU approach with the ports or airports is not agreed on, staff will pursue a regulatory approach. <i>Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP

^{*} Potentially significant hearing

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[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
November <i>(continued)</i>		
1147 ^{*+ #} 1147.2	NO_x Reductions from Miscellaneous Sources NO_x Reductions from Metal Melting and Heat Treating Furnaces Proposed Rule 1147.2 will establish NO _x emission limits to reflect Best Available Retrofit Control Technology for metal melting and heat treating furnaces and will apply to RECLAIM and non-RECLAIM facilities. Proposed Amended Rule 1147 will remove equipment that will be regulated under Proposed Rule 1147.2. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB617 BARCT
1410 [*]	Hydrogen Fluoride Use at Refineries Proposed Rule 1410 will establish requirements including mitigation measures, a performance standard, and potential phase-out of hydrogen fluoride or modified hydrogen fluoride for the use and storage of hydrogen fluoride at petroleum refineries. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
1435 [*]	Control of Emissions from Metal Heat Treating Processes Proposed Rule 1435 will establish requirements to reduce point source and fugitive toxic air contaminants including hexavalent chromium emissions from heat treating processes. Proposed Rule 1435 will also include monitoring, reporting, and recordkeeping requirements. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
December		
1117 ^{+ #}	Emissions of Oxides of Nitrogen from Glass Melting Furnaces Proposed Amended Rule 1117 will establish NO _x emission limits to reflect Best Available Retrofit Control Technology for glass melting furnaces and will apply to RECLAIM and non-RECLAIM facilities. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT
1147 ^{*+ #} 1147.3	NO_x Reductions from Miscellaneous Sources NO_x Reductions for Equipment at Aggregate Facilities Proposed Rule 1147.3 will establish NO _x emission limits to reflect Best Available Retrofit Control Technology for NO _x equipment at aggregate facilities and will apply to RECLAIM and non-RECLAIM facilities. Proposed Amended Rule 1147 will remove equipment that will be regulated under Proposed Rule 1147.3. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT

* Potentially significant hearing

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Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
December <i>(Continued)</i>		
1150.3 ^{*+}	NO_x Emission Reduction from Combustion Equipment at Landfills Proposed Rule 1150.3 will establish NO _x emission limits for boilers, process heaters, furnaces, and engines to reflect Best Available Retrofit Control Technology at landfills. The proposed rule will also include implementation schedules and monitoring, recordkeeping, and reporting requirements. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT
1179.1 ^{*+}	NO_x Emission Reduction from Combustion Equipment at Publicly Owned Treatment Work Facilities Proposed Rule 1179.1 will establish NO _x emission limits for boilers, process heaters, furnaces, and engines to reflect Best Available Retrofit Control Technology at publicly owned treatment works. The proposed rule will also include implementation schedules and monitoring, recordkeeping, and reporting requirements. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT
1426 [*]	Reduction of Toxic Air Contaminants from Metal Finishing Operations Proposed amendments to Rule 1426 will establish requirements to reduce nickel, cadmium, hexavalent chromium, and other air toxics from plating operations. Proposed Amended Rule 1426 will establish requirements to control point source and fugitive toxic air contaminant emissions. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
Reg. XXIII ^{*+}	Facility Based Mobile Sources Proposed rules within Regulation XXIII would reduce emissions from indirect sources (e.g., mobile sources that visit facilities). The rule or set of rules that would be brought for Board consideration in this month would reduce emissions from warehouses and distribution centers, consistent with Control Measure MOB-03 from the 2016 AQMP. <i>Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176 Socio: Ian MacMillan 909.396.3244</i>	AQMP

^{*} Potentially significant hearing

⁺ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 To-Be-Determined

2019	Title and Description	Type of Rulemaking
102	Definition of Terms (VOC) Staff may propose amendments to Rule 102 to add or revise definitions in order to support amendments to other Regulation XI rules. <i>Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
209 301	Transfer and Voiding of Permits; Permitting and Associated Fees Staff may propose amendments to clarify requirements for change of ownership and permits and the assessment of associated fees.	Other
219	Equipment Not Requiring a Written Permit Pursuant to Regulation II Proposed Amended Rule 219 will add or revise equipment not requiring a written permit. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
222	Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II Proposed Amended Rule 222 will add or revise equipment subject to filing requirements. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
223 1133.3	Emission Reduction Permits for Large Confined Animal Facilities Proposed Amended Rules 223 and 1133.3 will seek additional emission reductions from large confined animal facilities by lowering the applicability threshold. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
416	Odors from Kitchen Grease Processing Proposed Rule 416 will reduce odors from kitchen grease processing operations. The proposed rule will establish best management practices, and examine enclosure requirements for wastewater treatment operations and filter cake storage. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
425	Odors from Cannabis Processing Proposed Rule 425 will establish requirements to control the odors from cannabis processing. <i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
429	Start-Up and Shutdown Exemption Provisions for Oxides of Nitrogen Proposed Amendments to Rule 429 to address start-up/shutdown provisions related to the transition of NOx RECLAIM to a command-and-control regulatory program and if U.S. EPA requires updates to such provisions. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
445	Wood Burning Devices (PM 2.5 Contingency) Proposed Amendments to Rule 445 will include provisions for contingency in the event of failure to attain, or make reasonable further progress toward, the PM2.5 federal ambient air quality standards and other provisions. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
461	Gasoline Transfer and Dispensing Proposed Amendments to Rule 461 will reflect information from the California Air Resources Board, corrections, revisions and additions to improve the effectiveness, enforceability, and clarity of the rule. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ Toxics
462	Organic Liquid Loading Proposed Amendments to Rule 462 will improve the effectiveness, enforceability, and clarity of the rule. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
463	Organic Liquid Storage Proposed Amendments to Rule 463 will address the current test method and improve the effectiveness, enforceability, and clarity of the rule. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
464	Wastewater Separators Proposed Amendments to Rule 464 will improve the effectiveness, enforceability, and clarity of the rule. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1107	Coating of Metal Parts and Products Proposed Amended Rule 1107 will lower VOC emission limits for certain categories of coatings for metal parts and products and improve rule clarity and enforceability. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
1111.1	Reduction of NOx Emissions from Natural Gas Fired Commercial Furnaces (CMB-01) Proposed Rule 1111.1 will establish equipment-specific NOx emission limits and other requirements for the operation of commercial furnaces. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP Other
1113	Architectural Coatings Proposed Amended Rule 1113 may be needed to remove the tBAC exemption and pCBtF as a VOC exempt compound based on guidance from the Stationary Source Committee. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1118	Refinery Flares Proposed Amended Rule 1118 will revise provisions to improve the enforceability of the rule. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1123	Refinery Process Turnarounds Proposed Amended Rule 1123 will establish procedures that better quantify emission impacts from start-up, shutdown or turnaround activities. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
1135	Emissions of Oxides of Nitrogen from Electricity Generating Facilities Proposed Amended Rule 1135 will revise monitoring, reporting, and recordkeeping provisions to reflect amendments to Proposed Rule 113 and possibly other amendments to address comments from U.S. EPA. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1136	Wood Products Coatings Proposed Amended Rule 1136 will revise VOC limits for wood product coatings and other clarifications. <i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP
1146.2	Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters Proposed Amended Rule 1146.2 may be revised to lower the NOx emission limit to reflect a Best Available Retrofit Control Technology assessment. <i>Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB617 BARCT
1148.1 1148.2	Oil and Gas Production Wells Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers Proposed Amended Rules 1148.1 and 1148.2 may be revised to address community notification procedures, the inclusion of water injection wells, and potentially other measures based on an evaluation of information collected since the last rule adoption. Possibly other amendments to improve the enforceability. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1149	Tank Degassing Proposed Amended Rule 1149 will improve the effectiveness, enforceability, and clarity of the rule. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1148.3	Requirements for Natural Gas Underground Storage Facilities Proposed Rule 1148.3 will establish requirements to address public nuisance and VOC emissions from underground natural gas storage facilities. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1150.1	Control of Gaseous Emissions from Municipal Solid Waste Landfills Proposed Amended Rule 1150.1 will address U.S. EPA revisions to the New Source Performance Standards for Municipal Solid Waste Landfills and Existing Guidelines and Compliance Timelines for Municipal Solid Waste Landfills, as well as CARB GHG requirements. <i>Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1151	Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations Proposed Amended Rule 1151 is considering removing the tBAC exemption and is evaluating the impact from removing pCBtF as a VOC exempt compound based on guidance from the Stationary Source Committee. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1153.1	Emissions of Oxides of Nitrogen from Commercial Food Ovens Proposed Amendments to Rule 1153.1 may be needed to address applicability and technological feasibility of low-NOx burner technologies for new commercial food ovens. <i>Michael Krause 909.396.2706 CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244</i>	AQMP/ AB 617 BARCT
1157	PM10 Emission Reductions from Aggregate Related Operations Proposed Amended Rule 1157 will remove outdated language, revise opacity requirements, and improve the effectiveness, enforceability, and clarity of the rule. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1159.1	Nitric Acid Units – Oxides of Nitrogen Proposed Rule 1159.1 will address NOx emissions from processes using nitric acid and is needed as part of the transition of RECLAIM to command-and-control. <i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	AQMP AB 617 BARCT
1166	VOC Emissions from Decontamination of Soil Proposed Amended Rule 1166 will revise notification provisions, improve the effectiveness, enforceability, and clarity of the rule. <i>Michael Morris 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1173	Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed revisions to Rule 1173 are being considered based on recent U.S. EPA regulations and CARB oil and gas regulations and revisions to improve the effectiveness, enforceability, and clarity of the rule. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1190, 1191, 1192, 1193, 1194, 1195, 1196, & 1186.1	Fleet Vehicle Requirements Proposed amendments to fleet rules may be necessary to improve rule implementation. In addition, the current fleet rules may be expanded to achieve criteria pollutant and air toxic emission reductions pending new legislative authority. <i>Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1304.2	California Public Utilities Commission Regulated Electrical Local Publicly Owned Electrical Utility Fee for Use of SO_x, PM₁₀ and NO_x Offsets	Other
1304.3	Local Publicly Owned Electrical Generating Facility Fee for Use of SO_x, PM₁₀ and NO_x Offsets Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities and additions to existing electricity generating facilities conditional access to SCAQMD internal offset accounts for a fee, for subsequent funding of qualifying improvement projects consistent with the AQMP. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Other
1401	New Source Review of Toxic Air Contaminants Proposed Amended Rule 1401 may be revised to add, remove, or revise toxic air contaminants based on changes from OEHHA. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
1402	Control of Toxic Air Contaminant Emissions from Existing Sources Proposed Amended Rule 1402 may be revised based on implementation of other toxic rules or programs. <i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
1403	Asbestos Emissions from Demolition/Renovation Activities Proposed Amended Rule 1403 will enhance implementation, improve rule enforceability, and align provisions with the applicable U.S. EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) and other state and local requirements as necessary. <i>David De Boer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics
1407.1	Control of Toxic Air Contaminant Emissions from Chromium Alloy Melting Operations Proposed Rule 1407.1 will establish requirements to reduce point source and fugitive toxic air contaminant emissions from metal melting operations. <i>Michael Morris 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	Toxics

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1415 1415.1	<p>Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems, and Reduction of Refrigerant Emissions from Stationary Refrigeration Systems</p> <p>Amendments will align with the proposed CARB Refrigerant Management Program and U.S. EPA's Significant New Alternatives Policy Rule provisions relative to prohibitions on specific hydrofluorocarbons.</p> <p><i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
1426	<p>Emissions from Metal Finishing Operations</p> <p>Proposed Amended Rule 1426 will establish requirements to control point and fugitive toxic air contaminant emissions from metal finishing operations.</p> <p><i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
1430	<p>Control of Emissions from Metal Grinding Operations at Metal Forging Facilities</p> <p>Proposed Amended Rule 1430 may be needed to establish requirements to reduce toxic air contaminant emissions from metal forging operations.</p> <p><i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
1445	<p>Control of Toxic Emissions from Laser Arc Cutting</p> <p>Proposed Rule 1445 will establish requirements to reduce toxic metal particulate emissions from laser arc cutting.</p> <p><i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
1469.1	<p>Spraying Operations Using Coatings Containing Chromium</p> <p>Proposed Amended Rule 1469.1 will establish additional requirements to address fugitive emissions from facilities that are conducting spraying operations using chromium primers or coatings to further reduce hexavalent chromium emissions.</p> <p><i>Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
1470	<p>Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines</p> <p>Proposed Amended Rule 1470 will establish additional provisions to reduce the exposure to diesel particulate from new and existing small (≤ 50 brake horsepower) diesel engines located near sensitive receptors.</p> <p><i>David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Toxics
1902	<p>Transportation Conformity</p> <p>Proposed Amended Rule 1902 may be necessary to align the rule with current U.S. EPA requirements.</p> <p><i>Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
1905	<p>Pollution Controls for Automotive Tunnel Vents</p> <p>Proposed Rule 1905 will address emissions from proposed roadway tunnel projects that could have air quality impacts.</p> <p><i>Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
2202	<p>On-Road Motor Vehicle Mitigation Options Proposed Rule 2202 may be amended to address program streamlining for regulated entities, as well as reduce review and administration time for SCAQMD staff. Proposed Rule amendment concepts may include program components to facilitate the obtainment of average vehicle ridership (AVR) targets. <i>Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
Reg. XVI	<p>Mobile Source Offset Programs Proposed Amendments to Regulation XVI rules will allow generation of criteria pollutant Mobile Source Emission Reduction Credits (MSERCs) from various on-road and off-road sources, such as on-road heavy-duty trucks, off-road equipment, locomotives, and marine vessels. Credits will be generated by retrofitting existing engines or replacing the engines with new lower-emitting or zero-emission engines. <i>Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	AQMP
Reg. XVII	<p>Prevention of Significant Deterioration(PSD) Proposed Amendments to Regulation XVII are being considered for possible revisions based on information from U.S. EPA. <i>Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
Reg. XXVII	<p>Climate Change Changes may be needed to Regulation XXVII to add or update protocols for GHG reductions, and other changes. <i>Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i></p>	Other
Reg. II, IV, XIV, XI, XXIII, XXIV, XXX and XXXV	<p>Various rule amendments may be needed to meet the requirements of state and federal laws, implement OEHHA's 2015 revised risk assessment guidance, address variance issues/ technology-forcing limits, to abate a substantial endangerment to public health or additional reductions to meet the SIP short-term measure commitment. The associated rule development or amendments include, but are not limited to, SCAQMD existing rules, new or amended rules to implement the 2012 or 2016 AQMP measures. This includes measures in the 2010 Clean Communities Plan (CCP) or 2016 AQMP to reduce toxic air contaminants or reduce exposure to air toxics from stationary, mobile, and area sources. Rule adoption amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures, U.S. EPA's National Emission Standards for Hazardous Air Pollutants, or implementation of AB 617.</p>	Other/ AQMP

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 18

REPORT: FY 2018-19 Contract Activity

SYNOPSIS: This report lists the number of contracts let during the first six months of FY 2018-19, the respective dollar amounts, award type, and the authorized contract signatory for the SCAQMD.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

SJ:DH:EA:av

Background

The Board's Procurement Policy and Procedures requires staff to provide semi-annual reports to the Board on contract activity. This report identifies five categories of contract awards: 1) New Awards – new contracts for professional services and research projects; 2) Other – air monitoring station leases, Board Assistant agreements, or other miscellaneous agreements; 3) Sponsorships – contracts funding public events and technical conferences which provide air quality benefits; 4) Modifications – amendments to existing contracts usually reflecting changes in the project scope and/or schedule; 5) Terminated Contracts – Partial/No Work Performed – modifications to contracts to reflect termination of a portion or all of the work which result in de-obligation of contract funding. The report further specifies under New Awards, which contracts were awarded competitively and which were awarded on a sole-source basis. Within the first four categories, the level of approval (Board or Executive Officer) is indicated.

Summary

The total value of all contracts and contract modifications for this period was \$123,851,207.37, with 246 contracts and contract modifications totaling \$121,899,879 (98%) approved by the Board and 162 contracts and contract modifications totaling \$1,951,328.37 (2%) approved by the Executive Officer. This does not include contract modifications for termination with partial work or no work completed, which is

addressed below. Of the 453 contracts and modifications (including terminations) issued during this period, New Awards accounted for 245, Other accounted for 26, Sponsorships accounted for 22, and Modifications accounted for 120. The total value for New Awards was \$119,909,251.54. Of this amount, \$107,487,213.95 or 90% was awarded through the competitive process. Of the \$1,951,328.37 approved by the Executive Officer, Board Member Assistant contracts, as approved by the Board's Administrative Committee, totaled \$924,637.95 (48%) representing 27 contracts and contract modifications; \$353,982 (18%) representing 9 new contracts awarded on a sole source and competitive basis in the areas of technical consulting and litigation/legal services; \$319,175.17 (16%) representing 30 contracts was for sponsorships and outreach events services; \$132,654.37 (7%) representing 11 contracts was for miscellaneous goods and services including the lease of zero-emission vehicles and headquarter facility upgrades; and \$220,878.88 (11%) representing 90 contracts was for contract modifications for extensions of time or additional budgeted services from previously approved vendors. Contract terminations with partial or no work completed numbered 5 during this period and de-obligated a total of \$328,720.18.

CONTRACT CATEGORY	NUMBER	AMOUNT
NEW AWARDS	245	\$119,909,251.54
OTHER	26	\$ 927,737.95
SPONSORSHIPS	22	\$ 276,000.00
MODIFICATIONS	115	\$ 2,738,217.88
TERMINATIONS	5	-\$ 328,376.00

Attachment

Contract Activity Report for the period July 1, 2018 through December 31, 2018.

South Coast Air Quality Management District
Contract Activity Report
July 1, 2018 - December 31, 2018

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
I. NEW AWARDS							
Competitive - Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18144	68	DEVELOP AN INTEGRATED AIR MONITORING PROGRAM, A PUBLIC WEBSITE, AND A NOTIFICATION SYSTEM FOR THE COMMUNITY OF TORRANCE	SONOMA TECHNOLOGY INC	\$2,364,580.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18237	32	REPOWER 2 MAIN & 2 AUXILIARY ENGINES ON MARINE VESSEL - OPERATION ONLY	BOTTOM SCRATCHER INC	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18274	32	CNG REPLACEMENT OF 14 SOLID WASTE COLLECTION VEHICLES	USA WASTE OF CALIFORNIA INC	\$558,830.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18295	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	BLACKMORE CO. LLC	\$671,953.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18296	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	NEAL ARAVE	\$102,885.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18297	32	REPLACEMENT OF 7 OFF-ROAD AGRICULTURAL EQUIPMENT	FULL SEASON AG, INC	\$483,323.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18298	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	POST COMPANY GRADING CONTRACTORS INC	\$505,818.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18299	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	JIM BOOTSMA JR.	\$285,434.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18300	32	REPLACEMENT 1 OFF-ROAD AGRICULTURAL EQUIPMENT	BUFFALO MEADOWS RANCH, INC.	\$81,459.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18301	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	CITY OF WHITTIER	\$148,689.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18304	32	REPLACEMENT OF 5 OFF-ROAD AGRICULTURAL EQUIPMENT	DESERT CUSTOM FARMING INC.	\$865,586.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18306	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	WASHBURN GROVE MANAGEMENT, INC.	\$270,713.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18307	32	REPLACEMENT OF 5 OFF-ROAD AGRICULTURAL EQUIPMENT	PRADO RECREATION INC	\$1,057,735.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18309	32	REPOWER 2 MAIN AND 1 AUXILIARY ENGINES ON A MARINE VESSEL	JOSEPH P. CLARK	\$595,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18310	32	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	CURRENT SPORTFISHING	\$343,528.00	

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Contract Activity Report
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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18311	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	MCKINNEY CONSTRUCTION CO., INC	\$113,608.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18312	32	REPOWER OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	O & S HOLSTEINS LP	\$151,069.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18313	32	REPOWER AND RETROFIT OF 1 OFF-ROAD EQUIPMENT	JCE EQUIPMENT, INC.	\$157,275.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18314	32	REPOWER 2 MAIN ENGINES AND 1 AUXILIARY ENGINE ON A MARINE VESSEL	SAN CLEMENTE SPORTFISHING, INC	\$247,021.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18315	32	REPOWER 2 ENGINES ON A MARINE VESSEL	HAVE A PLAN, LLC	\$269,600.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18316	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	WILSON CREEK WINERY & VINEYARDS, INC	\$166,338.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18319	32	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	BALBOA BOAT YARD OF CALIFORNIA	\$77,526.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18320	32	REPOWER 1 MAIN ENGINE AND 1 AUXILIARY ENGINE OF A MARINE VESSEL	WILLIAM SUTTON	\$190,157.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18321	32	REPLACEMENT OF 2 OFF-ROAD, DUAL ENGINE EQUIPMENT WITH 1 OFF-ROAD DUAL ENGINE EQUIPMENT	SKIP EDMUNSON, INC.	\$1,126,520.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18322	32	REPLACEMENT OF 4 OFF-ROAD AGRICULTURAL EQUIPMENT	MARVO HOLSTEINS	\$711,800.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18323	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	JORGE MATHIEU	\$129,981.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18328	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	COUNTY OF LOS ANGELES	\$8,567.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18329	32	REPOWER 2 MAIN AND 2 AUXILIARY ENGINES ON A MARINE VESSEL	WHITE SHARK YACHT CHARTERS	\$641,365.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18330	32	REPLACEMENT OF 10 OFF-ROAD AGRICULTURAL EQUIPMENT	PASTIME LAKES HOLDINGS, LLC	\$699,790.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18333	32	REPLACEMENT OF 8 OFF-ROAD AGRICULTURAL EQUIPMENT	GORDON HAY INC	\$851,845.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18335	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	NORTHILLS RECYCLING INC.	\$487,827.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18378	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	MOUNTAIN TOP QUARRIES, LLC	\$548,020.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18379	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	WILLIAM KOOT DAIRY	\$244,832.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18383	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	WALLACE HALL	\$72,074.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18386	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	THE JOHNSON EQUIPMENT COMPANY, INC	\$159,913.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18387	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	R&J HARINGA DAIRY	\$176,485.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18388	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	EARTH & AG, LLC	\$941,816.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18389	32	REPOWER 1 MAIN & 1 AUXILIARY ENGINE ON MARINE VESSEL - OPERATION ONLY	ONFISH LLC	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18391	32	REPLACEMENT OF 24 OFF-ROAD AGRICULTURAL EQUIPMENT	GH DAIRY	\$2,591,647.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18393	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	ORGANIC DEPOT LLC	\$700,408.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18394	32	REPLACEMENT OF 11 OFF-ROAD EQUIPMENT	GRIFFITH COMPANY	\$805,373.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18396	32	REPLACEMENT OF 6 OFF-ROAD EQUIPMENT	WASTE MANAGEMENT COLLECTION & RECYCLING	\$273,974.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18398	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	DOMENIGONI BROTHERS RANCH LP	\$159,473.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18399	32	REPOWER 18 OFF-ROAD, DUAL-ENGINE EQUIPMENT	TGI EQUIPMENT CORPORATION	\$4,966,644.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19025	27,17	COMMERCIAL ELECTRIC LAWN & GARDEN EQUIPMENT INCENTIVE & EXCHANGE PROGRAM IN EJ AREAS	MEAN GREEN PRODUCTS LLC	\$1,099,602.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19029	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	GARY KANTOR EQUIPMENT RENTAL	\$77,750.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19032	77	REPOWER 1 MAIN ENGINE AND 1 AUXILIARY ENGINE OF A MARINE VESSEL	BRYAN KEITH BISHOP	\$130,400.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19033	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	ARTHUR SMITH	\$305,868.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19034	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	GENE RHEINGANS	\$706,297.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19035	77	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	SCOTT BROS. DAIRY FARMS	\$531,975.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19036	77	REPLACEMENT OF 16 OFF-ROAD AGRICULTURAL EQUIPMENT	SUN & SANDS ENTERPRISES, LLC	\$1,802,378.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19037	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL VEHICLE	LATIN LADY RANCH LLC	\$88,718.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19038	77	REPOWER 1 MAIN ENGINE ON A MARINE VESSEL	SEA TOW NEWPORT BEACH/LA	\$166,678.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19039	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	COLD CREEK ESTATES, LLC	\$83,913.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19042	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	SAN PEDRO PRIDE INC	\$112,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19043	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	LONG BEACH ANGLERS, INC.	\$123,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19045	77	REPOWER OF 2 MAIN ENGINES OF A MARINE VESSEL	EXODUS CHARTERS, INC.	\$234,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19050	77	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	JOSHUA FISHER	\$143,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19052	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	MONTE CARLO SPORTFISHING	\$265,600.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19053	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	STEVEN M. RABY	\$114,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19055	77	REPLACEMENT OF 2 ZERO-EMISSION TRANSIT BUSES	ANAHEIM TRANSPORTATION NETWORK	\$39,383.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19056	77	REPOWER 1 MAIN AND 1 AUXILIARY ENGINE ON A MARINE VESSEL	TOAN D. NGUYEN	\$154,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19057	77	REPOWER 1 MAIN ENGINE ON A MARINE VESSEL	TERRY ALLEN ROLAND	\$128,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19058	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	TORONADO SPORTFISHING	\$246,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19059	77	REPOWER 1 MAIN ENGINE AND 1 AUXILIARY ENGINE ON A MARINE VESSEL	STEVEN MARDESICH	\$143,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19060	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	SEAMUS CALLAGHAN	\$80,417.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19061	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	JMJ SPORTFISHING, INC.	\$340,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19062	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	SEAL BEACH ANGLERS, INC.	\$123,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19063	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	JOSEPH RICHARD PRIETO	\$142,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19065	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	TRADITION SPORTFISHING CHARTERS LLC	\$216,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19066	77	REPOWER 2 MAIN ENGINES OF 2 MARINE VESSELS	CARNAGE FISH CO.	\$210,101.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19067	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	CLINTON NGUYEN	\$125,600.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19068	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	ERNEST DARRYL BEARD II	\$238,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19069	77	REPOWER 1 MAIN ENGINE AND 1 AUXILIARY ENGINE OF A MARINE VESSEL	DUNG VAN NGUYEN	\$147,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19070	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	DANIEL HERNANDEZ PRODUCTIONS, INC	\$188,800.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19071	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	FREELANCE SPORTFISHING, INC.	\$122,009.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19074	77	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	GATEWAY CONCRETE, INC	\$117,670.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19075	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	KUNO'S GRADING, INC	\$126,357.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19076	77	REPOWER 2 MAIN ENGINES OF 2 MARINE VESSELS	J DELUCA FISH COMPANY, INC.	\$344,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19077	77	REPOWER 5 MAIN ENGINES AND 2 AUXILIARY ENGINES OF 3 MARINE VESSELS	HARBOR BREEZE CORP	\$1,566,779.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19078	31	TECHNICAL ASSISTANCE WITH ALT FUELS, EVS, CHARGING AND FUELING INFRASTRUCTURE AND RENEWABLE ENERGY	CLEAN FUEL CONNECTION INC	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19079	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	DON BEAN RANCH	\$163,567.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19080	77	REPLACEMENT OF 5 OFF-ROAD AGRICULTURAL EQUIPMENT	JUNIOR ENTERPRISES, LLC	\$351,838.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19082	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	HACIENDA DE TRAMPAS	\$36,314.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19083	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	JC FARMING INC.	\$700,067.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19085	77	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT WITH 1 OFF-ROAD EQUIPMENT	A.C.E. RENTAL & REPAIR, INC	\$953,119.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19086	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	CAL CRYSTAL SEA , LLC	\$112,800.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19087	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	PERAZZOLO TRANSPORTATIONS INC.	\$152,302.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19088	77	REPLACEMENT OF 3 OFF-ROAD EQUIPMENT	PACIFIC HYDROTECH CORP	\$161,048.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19089	77	REPLACEMENT OF 17 OFF-ROAD EQUIPMENT	COBURN EQUIPMENT	\$3,535,350.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19093	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	LA QUINTA DATE GROWERS, L.P.	\$105,504.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19095	77	REPOWER 1 OFF-ROAD EQUIPMENT	BOGH ENGINEERING INC	\$103,774.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19097	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	CAPLINGER CONSTRUCTION, INC	\$362,164.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19098	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	RICHARD BAGDASARIAN INC.	\$58,061.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19099	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	WHITTIER FERTILIZER CO.	\$230,663.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19100	77	REPLACEMENT OF 7 OFF-ROAD AGRICULTURAL EQUIPMENT	GOLDEN FARM INC	\$664,036.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19101	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	RUSS RAMSEY	\$59,662.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19102	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	TROJAN INC.	\$264,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19104	77	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	INDACOCHEA SHEEP RANCH	\$415,837.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19109	77	REPOWER 1 DUAL-ENGINE OFF-ROAD EQUIPMENT	POWER MOVE, INC.	\$237,646.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19110	77	REPLACEMENT OF 9 OFF-ROAD AGRICULTURAL EQUIPMENT	WEST COAST TURF	\$488,362.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19114	77	REPLACEMENT OF 8 OFF-ROAD AGRICULTURAL EQUIPMENT	DOUBLE D PIPELINE, INC.	\$972,497.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19115	77	REPLACEMENT OF 18 EXISTING OFF-ROAD EQUIPMENT WITH 9 NEW OFF-ROAD EQUIPMENT	SUKUT CONSTRUCTION, INC.	\$8,049,695.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19116	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	CITY OF LONG BEACH	\$182,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19117	77	REPLACEMENT OF 4 OFF-ROAD AGRICULTURAL EQUIPMENT	HOLLANDIA FARMS NORTH INC	\$399,795.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19118	77	REPLACEMENT OF 4 OFF-ROAD AGRICULTURAL EQUIPMENT	VAN DAM DAIRY FARM	\$649,254.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19122	77	REPLACEMENT OF 14 OFF-ROAD AGRICULTURAL EQUIPMENT	RAMONA DAIRY	\$1,942,440.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19123	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	EVERGREEN RECYCLING INC	\$179,617.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19124	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	RICHARD VARGE	\$55,008.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19125	77	REPOWER & RETROFIT 3 OFF-ROAD EQUIPMENT	RUSS BELL EQUIPMENT	\$683,205.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19126	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	SOUTHERN CALIFORNIA LANDSCAPE SUPPLY LLC	\$165,073.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19127	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	SAGE GREEN, LLC	\$806,278.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19128	77	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	WAYNE ALLISON	\$38,556.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19130	77	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	PRO-ORGANIC FARMS LLC	\$424,374.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19133	77	REPLACEMENT OF 13 OFF-ROAD AGRICULTURAL EQUIPMENT	AMAZING COACHELLA INC	\$1,739,885.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19138	77	REPLACEMENT OF 11 OFF-ROAD AGRICULTURAL EQUIPMENT	MALI BASTA RANCHES, LLC	\$750,486.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19145	80	TECHNICAL ASSISTANCE AND IMPLEMENTATION FOR THE CARL MOYER PROGRAM	CLEAN FUEL CONNECTION INC	\$300,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19147	01	PLAN, ORGANIZE AND FACILITATE REV. MARTIN LUTHER KING AND CESAR CHAVEZ EVENTS	LEE ANDREWS GROUP INC	\$450,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19157	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	USA WASTE OF CALIFORNIA INC	\$98,970.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19189	01	SECURITY GUARD SERVICES AT SCAQMD DIAMOND BAR HEADQUARTERS	CONTACT SECURITY INC.	\$1,640,682.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19200	17	REPLACEMENT OF 1 DIESEL TRUCK WITH 1 CNG TRUCK	WESTCOAST WAREHOUSING & TRUCKING, INC.	\$100,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19206	01	OPERATE SCAQMD DIAMOND BAR CAFETERIA	CALIFORNIA DINING SERVICES	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18285	80	REPLACEMENT OF 1 CNG TANK ON SCHOOL BUS	REDLANDS UNIFIED SCHOOL DISTRICT	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18337	80,31	PURCHASE 2 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	ALTA LOMA SCHOOL DISTRICT	\$393,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18338	80	PURCHASE 9 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	ANAHEIM ELEMENTARY SCHOOL DISTRICT	\$1,174,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18339	80	PURCHASE 15 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	ANAHEIM UNION HIGH SCHOOL DISTRICT	\$1,957,500.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18340	80	PURCHASE 2 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	BANNING UNIFIED SCHOOL DISTRICT	\$421,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18341	80	PURCHASE 2 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	BEAR VALLEY UNIFIED SCHOOL DISTRICT	\$393,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18342	80	PURCHASE 3 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	BEAUMONT UNIFIED SCHOOL DISTRICT	\$631,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18343	80	PURCHASE 4 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	BALDWIN PARK UNIFIED SCHOOL DISTRICT	\$502,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18344	80,31	PURCHASE 1 CNG SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	BELLFLOWER UNIFIED SCHOOL DISTRICT	\$210,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18345	80	PURCHASE 15 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	CAPISTRANO UNIFIED SCHOOL DISTRICT	\$3,157,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18346	80,31	PURCHASE 6 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	CHAFFEY JOINT UNION HIGH SCHOOL DISTRICT	\$1,179,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18347	80	PURCHASE 2 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	COACHELLA VALLEY UNIFIED SCHOOL DISTRICT	\$251,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18348	80,31	PURCHASE 1 CNG SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM OR METHANE DETECTION SYSTEM	CYPRESS SCHOOL DISTRICT	\$196,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18349	80,31	PURCHASE 4 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	DOWNEY UNIFIED SCHOOL DISTRICT	\$842,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18350	80,31	PURCHASE 1 CNG SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM	FOUNTAIN VALLEY SCHOOL DISTRICT	\$196,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18351	80,31	PURCHASE 4 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	FULLERTON JOINT UNION HIGH SCHOOL DIST	\$786,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18352	80	PURCHASE 4 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	FULLERTON SCHOOL DISTRICT	\$502,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18353	80	PURCHASE 15 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	GARDEN GROVE UNIFIED SCHOOL DISTRICT	\$1,957,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18354	80,31	PURCHASE 5 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	HEMET UNIFIED SCHOOL DISTRICT	\$1,052,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18355	80,31	PURCHASE 15 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	HUNTINGTON BEACH UNION HIGH SCH DISTRICT	\$3,157,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18357	80	PURCHASE 1 PROPANE SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM	LA HABRA CITY SCHOOL DISTRICT	\$125,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18358	80	PURCHASE 4 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	LOS ALAMITOS UNIFIED SCHOOL DISTRICT	\$842,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18359	80	PURCHASE 1 PROPANE SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM	NEWHALL SCHOOL DISTRICT	\$125,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18360	80	PURCHASE 6 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	NEWPORT-MESA UNIFIED SCHOOL DISTRICT	\$1,179,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18361	80	PURCHASE 5 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	NUVIEW UNION SCHOOL DISTRICT	\$652,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18363	80,31	PURCHASE 1 CNG SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	ORANGE UNIFIED SCHOOL DISTRICT	\$210,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18364	80,31	PURCHASE 6 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	PLACENTIA-YORBA LINDA UNIFIED SCH DIST	\$1,263,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18365	80,31	PURCHASE 5 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	PUPIL TRANSPORTATION COOPERATIVE	\$1,052,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18366	80	PURCHASE 11 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	REDLANDS UNIFIED SCHOOL DISTRICT	\$1,435,500.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18367	80,31	PURCHASE 13 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	RIALTO UNIFIED SCHOOL DISTRICT	\$2,736,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18368	80,31	PURCHASE 3 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	RIM OF THE WORLD UNIFIED SCHOOL DISTRICT	\$631,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18370	80,31	PURCHASE 2 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	SAN JACINTO UNIFIED SCHOOL DISTRICT	\$421,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18371	80	PURCHASE 2 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	SAUGUS UNION SCHOOL DISTRICT	\$251,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18372	80	PURCHASE 1 PROPANE SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	SAVANNA SCHOOL DISTRICT	\$130,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18373	80	PURCHASE 3 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS	SULPHUR SPRINGS SCHOOL DISTRICT	\$376,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18374	80,31	PURCHASE 4 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	UPLAND UNIFIED SCHOOL DISTRICT	\$842,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18375	80	PURCHASE 4 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	WALNUT VALLEY UNIFIED SCHOOL DISTRICT	\$842,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18376	80	PURCHASE 1 PROPANE SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM	WEST COVINA UNIFIED SCHOOL DISTRICT	\$125,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18377	80	PURCHASE 2 PROPANE SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	WESTMINSTER SCHOOL DISTRICT	\$261,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18400	80	REPLACEMENT OF 1 CNG TANK ON 1 SCHOOL BUS	FOUNTAIN VALLEY SCHOOL DISTRICT	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18401	80	REPLACEMENT OF 7 CNG TANKS ON SCHOOL BUSES	BELLFLOWER USD	\$140,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G19048	80	REPLACEMENT OF 1 CNG FUEL TANK ON 1 SCHOOL BUS	RIM OF THE WORLD UNIFIED SCHOOL DISTRICT	\$20,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G19092	80	REPLACEMENT OF 1 CNG FUEL TANK ON 1 SCHOOL BUS	ARCADIA UNIFIED SCHOOL DISTRICT	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G19105	80	REPLACEMENT OF 5 CNG TANKS ON SCHOOL BUSES	BANNING UNIFIED SCHOOL DISTRICT	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G19106	80	REPLACEMENT OF 2 CNG TANKS ON SCHOOL BUSES	HEMET UNIFIED SCHOOL DISTRICT	\$40,000.00	
44	MSRC	ML12091	23	INSTALL EV CHARGING STATIONS	CITY OF BELLFLOWER	\$100,000.00	
44	MSRC	ML18028	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF ARTESIA	\$50,000.00	
44	MSRC	ML18030	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF GRAND TERRACE	\$45,000.00	
44	MSRC	ML18031	23	PROCURE 2 LIGHT-DUTY ZEVS, 1 HEAVY-DUTY NEAR ZERO VEHICLE AND EVSE	CITY OF DIAMOND BAR	\$73,930.00	
44	MSRC	ML18033	23	PROCURE 1 HEAVY-DUTY NEAR-ZERO EMISSION VEHICLE	CITY OF DUARTE	\$50,000.00	
44	MSRC	ML18035	23	INSTALL EV CHARGING STATIONS	CITY OF WESTLAKE VILLAGE	\$50,000.00	
44	MSRC	ML18036	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF INDIAN WELLS	\$50,000.00	
44	MSRC	ML18037	23	PURCHASE 3 LIGHT AND 1 MEDIUM-DUTY ZEVS AND EVSE	CITY OF WESTMINSTER	\$120,900.00	
44	MSRC	ML18038	23	PROCURE 5 LIGHT-DUTY ZEV'S AND EVSE	CITY OF ANAHEIM	\$221,500.00	
44	MSRC	ML18039	23	PROCURE 1 HEAVY-DUTY ZERO EMISSION VEHICLE (ZEV) AND INSTALL 1 LEVEL III FAST CHARGE ELECTRIC VEHICLE CHARGING STATION	CITY OF REDLANDS	\$87,000.00	
44	MSRC	ML18040	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF AGOURA HILLS	\$50,000.00	
44	MSRC	ML18041	23	INSTALL ELECTRIC VEHICLE CHARGING STATION	CITY OF WEST HOLLYWOOD	\$50,000.00	
44	MSRC	ML18042	23	PROCURE 1 LIGHT-DUTY ZERO EMISSION VEHICLE	CITY OF SAN FERNANDO	\$10,000.00	
44	MSRC	ML18043	23	INSTALL EV CHARGING STATIONS	CITY OF YORBA LINDA	\$87,990.00	
44	MSRC	ML18044	23	UPGRADE AND INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF MALIBU	\$50,000.00	
44	MSRC	ML18045	23	PURCHASE 8 HEAVY-DUTY NEAR-ZERO EMISSION VEHICLES	CITY OF CULVER CITY	\$51,000.00	

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44	MSRC	ML18046	23	PROCURE ZERO AND NEAR-ZERO EMISSION VEHICLES AND INSTALL EV CHARGING STATIONS	CITY OF SANTA ANA	\$385,000.00	
44	MSRC	ML18047	23	PURCHASE 5 HEAVY-DUTY NEAR-ZERO EMISSION VEHICLES	CITY OF WHITTIER	\$113,910.00	
44	MSRC	ML18048	23	PURCHASE 3 MEDIUM-DUTY EV'S	CITY OF LYNWOOD	\$93,500.00	
44	MSRC	ML18049	23	INSTALL ELETRIC VEHICLE CHARGING STATIONS	CITY OF DOWNEY	\$148,260.00	
44	MSRC	ML18050	23	PROCURE 1 ON-ROAD MEDIUM-DUTY ZERO EMISSION VEHICLE AND INSTALL 16 LEVEL II EV CHARGING STATIONS	CITY OF IRVINE	\$330,490.00	
44	MSRC	ML18052	23	PROCURE 4 LIGHT-DUTY ZERO EMISSION VEHICLES AND ASSOCIATED INFRASTRUCTURE	CITY OF GARDEN GROVE	\$53,593.00	
44	MSRC	ML18053	23	INSTALL EVSE	CITY OF PARAMOUNT	\$72,580.00	
44	MSRC	ML18054	23	PROCURE 1 LIGHT-DUTY ZERO EMISSION VEHICLE	CITY OF LA HABRA HEIGHTS	\$9,200.00	
44	MSRC	ML18057	23	PROCURE 5 LIGHT-DUTY ZEVS AND INSTALL 3 EV CHARGING STATIONS	CITY OF CARSON	\$106,250.00	
44	MSRC	ML18058	23	PROCURE ZERO EMISSION VEHICLE AND INSTALL EV CHARGING STATION	CITY OF PERRIS	\$94,624.00	
44	MSRC	ML18060	23	PROCURE 29 ON-ROAD LIGHT DUTY ZERO EMISSION VEHICLES, ONE ON-ROAD HEAVY-DUTY ZERO EMISSION VEHICLE, 6 ON-ROAD HEAVY-DUTY NEAR-ZERO EMISSIONS VEHICLE AND INSTALL 185 EV CHARGING STATIONS	COUNTY OF LOS ANGELES	\$1,367,610.00	
44	MSRC	ML18062	23	PROCURE 1 HEAVY-DUTY NEAR-ZERO EMISSION VEHICLE	CITY OF BEAUMONT	\$25,000.00	
44	MSRC	ML18067	23	INSTALL EV CHARGING STATIONS	CITY OF PICO RIVERA	\$83,500.00	
44	MSRC	ML18071	23	PROCURE 2 LIGHT-DUTY ZEV EVSE	CITY OF CHINO HILLS	\$30,000.00	
44	MSRC	ML18076	23	PROCURE 1 LIGHT-DUTY ZERO EMISSION VEHICLE	CITY OF CULVER CITY	\$1,130.00	
44	MSRC	ML18077	23	PROCURE 4 LIGHT-DUTY ZEVS AND INSTALL EV CHARGING STATIONS	CITY OF ORANGE	\$59,776.00	
44	MSRC	ML18078	23	PURCHASE 17 HEAVY-DUTY NEAR-ZERO EMISSION VEHICLES	COUNTY OF RIVERSIDE	\$425,000.00	
44	MSRC	ML18081	32	INSTALL 2 EV CHARGING STATIONS	CITY OF BEAUMONT	\$31,870.00	

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44	MSRC	ML18083	23	SYNCHRONIZE 35 INTERSECTIONS	CITY OF SAN FERNANDO	\$20,000.00	
44	MSRC	ML18095	23	PROCURE HEAVY-DUTY NEAR-ZERO EMISSIONS VEHICLE	CITY OF GARDENA	\$25,000.00	
44	MSRC	MS18009	23	MODIFY MAINTENANCE FACILITY AND TRAIN TECHNICIANS	PENSKE TRUCK LEASING CO LP	\$82,500.00	
44	MSRC	MS18015	23	IMPLEMENT FUTURE COMMUNITIES PROGRAM	SOUTHERN CALIFORNIA	\$2,000,000.00	
44	MSRC	MS18024	23	REGIONAL VAN POOL INCENTIVE PROGRAM	RIVERSIDE COUNTY	\$1,500,000.00	
44	MSRC	MS18026	23	MODIFY MAINTENANCE FACILITY & TRAIN MECHANICS	OMNITRANS	\$83,000.00	
44	MSRC	MS18027	23	INSTALL CNG STATION, MODIFY MAINTENANCE FACILITY AND TRAIN MECHANICS	CITY OF GARDENA	\$365,000.00	
44	MSRC	MS18029	23	INSTALL LIMITED ACCESS CNG STATION AND TRAIN MECHANICS	IRVINE RANCH WATER DISTRICT	\$185,000.00	
Subtotal						\$107,341,318.00	
Competitive-Executive Officer Approved							
16	ADMINISTRATIVE & HUMAN RESOURCES	C19046	01	DESIGN, ENGINEERING AND BIDDING DOCUMENTS FOR REPLACEMENT OF LIEBERT AIR CONDITIONING UNITS	GOSS ENGINEERING, INC	\$74,834.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19054	01	SITE/FACILITY SECURITY ASSESSMENT	IPARAMETRICS, LLC	\$26,593.95	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19091	01	CARPET REPLACEMENT LOWER LEVEL	FLOOR TECH AMERICA, INC.	\$44,468.00	
Subtotal						\$145,895.95	
Sole Source - Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18129	31	VERSATILE PLUG-IN AUXILIARY POWER SYSTEM DEMONSTRATION	EPRI	\$125,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18150	31	CONDUCT HYDROGEN STATION SITE EVALUATION FOR HYDROGEN STATION EQUIPMENT PERFORMANCE	CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE	\$100,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18158	31	CALIFORNIA HYDROGEN INFRASTRUCTURE RESEARCH CONSORTIUM H2@SCALE INITIATIVE	NATIONAL RENEWABLE ENERGY LAB	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18160	33	DEVELOP AND DEMONSTRATE ELECTRIC SCHOOL BUSES WITH VEHICLE-TO-GRID CAPABILITY	BLUE BIRD BODY COMPANY	\$1,900,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18221	17	COSPONSOR HEAVY-DUTY DIESEL DRAYAGE TRUCK REPLACEMENT AGENCY	PUGET SOUND CLEAN AIR AGENCY	\$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18232	31	ELECTRIC TOP-HANDLER DEVELOPMENT, INTEGRATION AND DEMONSTRATION	HYSTER-YALE NEDERLAND B.V.	\$2,931,805.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18252	01	OPTICAL TENT FOR REFINERY EMISSIONS MONITORING AND EARLY WARNING OF ACCIDENTAL RELEASES	UNIVERSITY OF CALIFORNIA-LOS ANGELES	\$880,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18258	46	RESEARCH OF HEXAVALENT CHROMIUM EMISSIONS FROM INDUSTRIAL HEAT TREATING FURNACES	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$174,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18267	75	INSTALLATION OF AIR FILTRATION SYSTEMS	IQAIR NORTH AMERICA, INC.	\$403,869.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18277	31	SOUTHERN CALIFORNIA ADVANCED SUSTAINABLE FREIGHT DEMONSTRATION	LOS ANGELES TRUCK CENTERS LLC	\$3,568,300.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18283	01	APPLICATION OF HYPERSPECTRAL THERMAL-INFRARED IMAGING TO CHARACTERIZE AND QUANTIFY AIR TOXICS WITHIN THE SOUTH COAST AIR BASIN	THE AEROSPACE CORPORATION	\$192,000.00	
08	LEGAL	C18303	01	ONLINE LEGAL RESEARCH/ELECTRONIC LEGAL SERVICES	THOMSON REUTERS - WEST PYMT CTR	\$177,696.00	
08	LEGAL	C18305	01	ACCESS TO ON-LINE LEGAL RESEARCH LIBRARIES AND PRINT PUBLICATIONS	THOMSON REUTERS - WEST PYMT CTR	\$93,757.00	
26	PLANNING RULE DEV & AREA SOURCES	C18390	27	COLLABORATION FOR ENERGY EFFICIENCY AND NOX REDUCTION THROUGH LOW INCOME WEATHERIZATION PROGRAM	BUILD IT GREEN	\$615,000.00	
44	MSRC	MS18014	23	ELECTRIC VEHICLE INFRASTRUCTURE SPATIAL PLANNING ANALYSIS	UNIVERSITY OF CALIFORNIA-LOS ANGELES	\$254,795.00	
44	MSRC	MS18023	23	WEEKEND FREEWAY SERVICE PATROLS	RIVERSIDE COUNTY TRANSPORTATION COMM	\$500,000.00	
Subtotal						\$12,041,222.00	

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Sole Source - Executive Officer Approved							
08	LEGAL	C19031	01	OUTSIDE LEGAL COUNSEL FOR ADVICE ON FEDERAL LAWS/COMPLEX LITIGATION	KENDALL BRILL & KELLY LLP	\$15,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19041	01	GREEN CALIFORNIA SCHOOLS AND COMMUNITY COLLEGES SUMMIT AND EXHIBITION	GREEN TECHNOLOGY	\$1,875.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19044	01	2018 SCAQMD "SENIORS CELEBRATING HEALTHY LIVING & SENIOR FAIR, RIVERSIDE" VENUE AND LUNCH	RIVERSIDE CONVENTION CENTER	\$13,035.67	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19084	01	PUBLIC OPINION RESEARCH - PROPOSED SALES TAX INCREASE MEASURE SURVEY	FAIRBANK, MASLIN, MAULLIN, METZ	\$75,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19090	01	EXHIBIT AT ELECTRIFICATION 2018 INTERNATIONAL CONFERENCE & EXPOSITION	EPRI	\$18,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19137	01	WHOVA LICENSE AND SERVICE AGREEMENT FOR THE FOURTH ANNUAL ENVIRONMENTAL JUSTICE CONFERENCE	WHOVA, INC.	\$1,099.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19140	01	SUBSURFACE GEOTECHNICAL INVESTIGATION	COTTON, SHIRES AND ASSOCIATES, INC.	\$67,555.00	
08	LEGAL	C19149	01	PROVIDE LEGAL ADVICE/REPRESENTATION RELATED TO HYDROGEN FLUORIDE	MORRISON & FOERSTER, LLP	\$20,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19152	01	FAITH BASED ENVIRONMENTAL SUSTAINABILITY LEADERS MEETING	SAINT SOPHIA GREEK ORTHODOX COMMUNITY	\$7,000.00	
08	LEGAL	C19158	01	CONSULTING EXPERT ON MODIFIED HYDROFLUORIC ACID (MHF)	PETROTECH CONSULTANTS LLC	\$15,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19164	01	MUSIC/ENTERTAINMENT SERVICES FOR 30TH SCAQMD CLEAN AIR AWARDS	LOS ANGELES UNIFIED SCHOOL DISTRICT	\$500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19167	01	CLEAN AIR AWARDS	ALEGRA NICOLE RODRIGUEZ	\$150.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19168	01	CONSULTATION FOR CENTRAL PLANT EQUIPMENT REPLACEMENT	ENVISE	\$30,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19172	01	LEASE OF 2 MIRAI FUEL CELL VEHICLES	LONGO TOYOTA - A PENSKE COMPANY	\$35,085.42	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19178	01	EXECUTIVE OFFICE REDESIGN	FORMA STUDIO	\$50,000.00	

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26	PLANNING RULE DEV & AREA SOURCES	C19203	01	ANALYSIS OF POSSIBLE ADD-ON TAX	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$30,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19207	01	AB 617 COMMUNITY STEERING COMMITTEE MEETING (VENUE)	CITY OF CARSON	\$1,515.50	
Subtotal						\$380,815.59	

II. OTHER

Board Assistant

Board Administrative Committee Reviewed/Executive Officer Approved

02	GOVERNING BOARD	C19000	01	BOARD ASSISTANT SERVICES FOR JUDY MITCHELL	MARISA KRISTINE PEREZ	\$65,496.96	
02	GOVERNING BOARD	C19001	01	BOARD ASSISTANT SERVICES FOR HILDA SOLIS	YIFANG ZHU	\$53,269.92	
02	GOVERNING BOARD	C19002	01	BOARD ASSISTANT SERVICES FOR LARRY MCCALLON	RONALD KETCHAM	\$42,171.96	
02	GOVERNING BOARD	C19003	01	BOARD ASSISTANT SERVICES FOR DR. JOSEPH LYOU	NICOLE NISHIMURA	\$37,783.32	
02	GOVERNING BOARD	C19004	01	BOARD ASSISTANT SERVICES FOR DR. JOSEPH LYOU	MARK ABRAMOWITZ	\$41,628.72	
02	GOVERNING BOARD	C19005	01	BOARD ASSISTANT SERVICES FOR JOE BUSCAINO	JACOB LEE HAIK	\$60,175.92	
02	GOVERNING BOARD	C19006	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	CITY OF WILDOMAR	\$32,871.96	
02	GOVERNING BOARD	C19007	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	RUTHANNE TAYLOR BERGER	\$86,000.04	
02	GOVERNING BOARD	C19008	01	BOARD ASSISTANT SERVICES FOR DR. CLARK E. PARKER	KANA MIYAMOTO	\$73,412.40	
02	GOVERNING BOARD	C19009	01	BOARD ASSISTANT SERVICES FOR DR. CLARK E. PARKER	MARIA INIGUEZ	\$38,750.00	
02	GOVERNING BOARD	C19010	01	BOARD ASSISTANT SERVICES FOR DR. WILLIAM BURKE	P & L CONSULTING, LLC	\$118,872.00	
02	GOVERNING BOARD	C19011	01	BOARD ASSISTANT SERVICES FOR MARION ASHLEY	BUFORD A CRITES	\$39,624.00	
02	GOVERNING BOARD	C19012	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	BENJAMIN S WONG	\$5,250.00	
02	GOVERNING BOARD	C19013	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	SHO TAY	\$5,250.00	
02	GOVERNING BOARD	C19014	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	TIMOTHY PHILLIP SANDOVAL	\$8,484.00	

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02	GOVERNING BOARD	C19015	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	WILLIAM GLAZIER	\$6,120.00	
02	GOVERNING BOARD	C19016	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	DAVID CZAMANSKE	\$8,400.00	
02	GOVERNING BOARD	C19017	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	FRANK CARDENAS AND ASSOCIATES	\$6,120.00	
02	GOVERNING BOARD	C19018	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	\$1.00	
02	GOVERNING BOARD	C19019	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	\$61,656.00	
02	GOVERNING BOARD	C19020	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	MATTHEW AUGUST HOLDER	\$39,624.00	
02	GOVERNING BOARD	C19021	01	BOARD ASSISTANT SERVICES FOR SHAWN NELSON	INFRASTRUCTURE GROUP, INC	\$47,352.00	
02	GOVERNING BOARD	C19176	01	BOARD ASSISTANT SERVICES FOR V. MANUEL PEREZ	GUILLERMO GONZALEZ	\$46,323.75	
Subtotal						\$924,637.95	
Other - Executive Officer Approved							
16	ADMINISTRATIVE & HUMAN RESOURCES	C18134	01	AIR MONITORING STATION LAKE GREGORY	SAN BERNARDINO COUNTY	\$2,500.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C19103	01	AIR MONITORING STATION LONG BEACH	CENTURY VILLAGES AT CABRILLO, INC	\$600.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19155	59	SCAQMD APPROVED DEALERSHIP VIP	SOUTH BAY FORD INC.	\$0.00	1
Subtotal						\$3,100.00	
III. SPONSORSHIPS							
Sponsorship -Executive Officer Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18155	01	COSPONSOR 2018 AIR SENSORS INTERNATIONAL CONFERENCE	UNIVERSITY OF CALIFORNIA-DAVIS	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19022	01	COSPONSOR 2018 PACOIMA BEAUTIFUL ENVIRONMENTAL JUSTICE AWARDS	PACOIMA BEAUTIFUL	\$3,000.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C19028	01	COSPONSOR 2018 41ST ASSEMBLY DISTRICT COMMUNITY RESOURCE FAIR AND BLOCK PARTY	FLINTRIDGE CENTER	\$2,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19030	01	COSPONSOR 23RD ANNUAL CENTRAL AVENUE JAZZ FESTIVAL	COALITION FOR RESPONSIBLE COMMUNITY DEVELOPMENT	\$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19040	01	COSPONSOR THE LOS ANGELES NATIONAL DRIVE ELECTRIC WEEK 2018	PLUG IN AMERICA	\$1,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19112	01	COSPONSOR THE 2018 SANTA MONICA ALT CAR EXPO & CONFERENCE	PLATIA PRODUCTIONS	\$14,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19131	01	COSPONSOR RENDEZVOUS BACK TO ROUTE 66	SAN BERNARDINO AREA CHAMBER OF COMMERCE	\$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19132	01	COSPONSOR 13TH ANNUAL TASTE OF SOUL 2018 FAMILY FESTIVAL SPONSORSHIP	LOS ANGELES SENTINEL, INC	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19135	01	COSPONSOR THE 2018 LOS ANGELES NATIONAL LEAGUE OF CITIES CITY SUMMIT	LOS ANGELES TOURISM & CONVENTION BOARD	\$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19141	01	COSPONSOR COMITE CIVICO DEL VALLE'S 9TH ENVIRONMENTAL HEALTH LEADERSHIP SUMMIT	COMITE CIVICO DEL VALLE, INC	\$2,500.00	
03	EXECUTIVE OFFICE	C19142	01	COSPONSOR LEGACY LA 1ST ANNUAL GALA	LEGACY LA YOUTH DEVELOPMENT CORP.	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19143	01	COSPONSOR 2018 SOUTHERN INLAND EMPIRE NATIONAL DRIVE WEEK	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$1,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19146	01	COSPONSOR PIONEER OF AFRICAN AMERICAN ACHIEVEMENT AWARD DINNER	LOS ANGELES BROTHERHOOD CRUSADE	\$7,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19153	01	COSPONSOR CALSTART'S 26TH ANNUAL SYMPOSIUM	CALSTART, INC	\$15,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19154	01	COSPONSOR THE CALETC 2018 LOS ANGELES AUTO SHOW EVENTS	CALIFORNIA ELECTRIC TRANSP. COALITION	\$8,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19159	01	COSPONSOR 2018 WEST COAST COLLABORATIVE PARTNERS MEETING	GREATER SACRAMENTO REGIONAL CLEAN AIR	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19160	01	COSPONSOR 2019 MOBILE SOURCE AIR TOXICS WORKSHOP	COORDINATING RESEARCH COUNCIL INC	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19161	01	COSPONSOR COALITION FOR AT-RISK YOUTH - A SUNDAY BRUNCH FUNDRAISER	THE COALITION FOR AT RISK YOUTH	\$10,000.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C19162	01	COSPONSOR ZOCALO FIESTA EVENT	DELHI CENTER	\$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19163	01	COSPONSOR THE POWER OF WASTE: RENEWABLE NATURAL GAS (RNG) FOR CALIFORNIA WORKSHOP	ENERGY VISION, INC.	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19173	01	COSPONSOR OF "YOUR LIFE IS NOW" ENVIRONMENTAL HEALTH SUMMIT	COMMUNITY PARTNERS	\$2,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19174	01	COSPONSOR LUNG FORCE WALK SPONSORSHIP	AMERICAN LUNG ASSOCIATION	\$5,000.00	
Subtotal						\$276,000.00	
IV. MODIFICATIONS							
Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12308	40	PERFORM WEBSITE SERVICES FOR THE CNGVP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$24,000.00	
04	FINANCE	C14150	57	CITY OF EL MONTE LAMBERT PARK PROJECT	CITY OF EL MONTE	\$23,534.00	
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	\$27,391.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15515	58	AB1318 INSTALLATION OF SOLAR PHOTOVOLTAIC GROUND MOUNT SYSTEM	RENOVA ENERGY CORP.	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15541	56	ENHANCED FLEET MODERNIZATION PROGRAM	FOUNDATION FOR CALIF COMMUNITY COLLEGES	\$650,000.00	
20	MEDIA OFFICE	C17023	36	MEDIA, ADVERTISING AND PUBLIC OUTREACH CAMPAIGN FOR CHECK BEFORE YOU BURN PROGRAM	WESTBOUND COMMUNICATIONS INC	\$246,000.00	
08	LEGAL	C18104	01	PROVIDE EMPLOYMENT AND LABOR LAW SERVICES	FISHER & PHILLIPS, LLP	\$50,000.00	
08	LEGAL	C18114	01	PROVIDE ENVIRONMENTAL LAW SERVICES	WOODRUFF SPRADLIN & SMART	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18137	01	SACRAMENTO LEGISLTATIVE REPRESENTATION	THE QUINTANA CRUZ COMPANY LLC	\$103,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18138	01	SACRAMENTO LEGISLATIVE REPRESENTATION	CALIFORNIA ADVISORS LLC	\$103,500.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C18139	01	STRATEGIC CONSULTING SERVICES FOR LEGISLATION REPRESENTATION IN SACRAMENTO, CALIFORNIA	JOE A GONSALVES & SON	\$143,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18225	01	AIR QUALITY MONITORING NETWORK DATA VISUALIZATION AND ANALYSIS SYSTEM	ENVIROSUITE CORP.	\$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18274	77	CNG REPLACEMENT OF 14 SOLID WASTE COLLECTION VEHICLES	USA WASTE OF CALIFORNIA INC	\$600,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19052	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	MONTE CARLO SPORTFISHING	\$33,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19053	77	REPOWER 1 MAIN ENGINE OF A MARINE VESSEL	STEVEN M. RABY	\$14,300.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19074	77	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	GATEWAY CONCRETE, INC	\$13,582.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19095	77	REPOWER 1 OFF-ROAD EQUIPMENT	BOGH ENGINEERING INC	\$37,062.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19097	77	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	CAPLINGER CONSTRUCTION, INC	\$45,270.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C19102	77	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	TROJAN INC.	\$33,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16054	33	REPLACEMENT OF 2 DIESEL SCHOOL BUSES WITH ELECTRIC BUSES	COLTON JOINT UNIFIED SCHOOL DISTRICT	\$275,000.00	
44	MSRC	MS16030	23	PROGRAMMATIC OUTREACH SERVICES ON BEHALF OF THE MSRC	BETTER WORLD GROUP ADVISORS	\$0.00	11
Subtotal						\$2,517,339.00	
Board Assistant							
Board Administrative Committee Reviewed/Executive Officer Approved							
02	GOVERNING BOARD	C19011	01	BOARD ASSISTANT SERVICES FOR MARION ASHLEY	BUFORD A CRITES	\$0.00	11
02	GOVERNING BOARD	C19015		BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	WILLIAM GLAZIER	\$0.00	11
02	GOVERNING BOARD	C19176	01	BOARD ASSISTANT SERVICES FOR V. MANUEL PEREZ	GUILLERMO GONZALEZ	\$0.00	11
02	GOVERNING BOARD	C19176	01	BOARD ASSISTANT SERVICES FOR V. MANUEL PEREZ	GUILLERMO GONZALEZ	\$0.00	1
Subtotal						\$0.00	

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Executive Officer Approved							
08	LEGAL	C10060	01	PROVIDE EMPLOYEE LITIGATION SERVICES	WILEY PRICE & RADULOVICH	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C10079	32	REPOWER 1 SINGLE ENGINE SCRAPER	ANDREW J. ALVA	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C11607	01	NATURAL GAS PURCHASE AGREEMENT	STATE OF CALIFORNIA	\$27,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12057	31	DEMONSTRATE AND EXPAND HYDROGEN FUELING INFRASTRUCTURE TO SUPPORT EXISTING AND ANTICIPATED FCV POPULATION IN LAGUNA NIGUEL AREA	LINDE ELECTRONICS & SPECIALTY GASES	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12192	32	REPOWER 1 AUXILIARY ENGINE ON 1 MARINE VESSEL	PRO'S CHOICE - MR. CHUM, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12376	31	TECHNICAL ASSISTANCE FOR AIR POLLUTION FORMATION AND CONTROL, ADVANCED TRANSPORTATION TECHNOLOGIES AND SYSTEMS, EMISSIONS MEASUREMENTS AND ANALYSIS, ALTERNATIVE FUEL TECHNOLOGIES, SUSTAINABLE ENERGY SYSTEMS, AND OFF-ROAD VEHICLES AND EQUIPMENT	UNIVERSITY OF CALIFORNIA, RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12454	36	INSTALLATION OF UP TO 1MW OF FLYWHEEL ENERGY STORAGE TO PROVIDE REGENERATIVE BRAKING TO TRAINS	KINETIC TRACTION SYSTEMS, INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13433	31	DEVELOP AND DEMONSTRATE 2 CLASS 8 ZERO-EMISSION ELECTRIC TRUCKS	US HYBRID CORPORATION	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14035	58	INSTALLATION OF SOLAR PHOTOVOLTAIC GROUND MOUNT SYSTEM	MISSION SPRINGS WATER DISTRICT	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14062	31	CONSTRUCT A ONE MILE CATENARY SYSTEM & DEVELOP AND DEMONSTRATE A DIESEL CATENARY HYBRID ELECTRIC TRUCK	SIEMENS INDUSTRY, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14131	32	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	JOHNNY HULJEV	\$0.00	11
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	\$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14256	31	DEVELOP AND DEMONSTRATE V2G TECHNOLOGY	NATIONAL STRATEGIES, LLC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14590	81	PROP 1B TRUCK REPLACEMENT PROGRAM	PONCIANO ARZATE	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15025	01	MEDICAL SERVICE PROVIDER	KAISER FOUNDATION HEALTH PLAN	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15080	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JOSE ENRIQUE VELASCO	\$0.00	6
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15480	32	REPLACEMENT OF 2-FOR-1 OFF-ROAD VEHICLE	K.O.B. INC DBA WEST END MATERIAL SUPPLY	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15607	31	INNOVATIVE TRANSPORTATION SYSTEM SOLUTIONS FOR NOX REDUCTIONS IN HEAVY-DUTY FLEETS	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15636	31	EVALUATE PEV UTILIZATION THROUGH ADVANCED CHARGING STRATEGIES IN A SMART GRID SYSTEM	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15636	31	EVALUATE PEV UTILIZATION THROUGH ADVANCED CHARGING STRATEGIES IN A SMART GRID SYSTEM	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15680	01	DEVELOP A DETAILED TECHNOLOGY AND ECONOMICS BASED ROADMAP FOR THE ADOPTION OF ADVANCED COMMERCIAL VEHICLE TECHNOLOGIES TO REDUCE NITROGEN OXIDES (NOx) AND GREENHOUSE GAS (GHG) EMISSIONS THROUGH 2050 WITH EMPHASIS ON THE YEARS 2023 AND 2032.	NATIONAL RENEWABLE ENERGY LAB	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16033	01	EVALUATION OF POTENTIAL HEALTH EFFECTS FROM AIR POLLUTION	JOHN R FROINES	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16034	01	EVALUATE POTENTIAL HEALTH EFFECTS FROM AIR POLLUTION	MICHAEL T. KLEINMAN	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16037	01	INSURANCE CONSULTANT/BROKERAGE SERVICES	ALLIANT INSURANCE SERVICES INC	\$74,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16046	61	ZECT - DEVELOP 2 CLASS 8 PLUG-IN HYBRID ELECTRIC TRUCKS WITH ZERO EMISSION OPERATION CAPABILITY AND EXTENDED RANGE USING AN ONBOARD GENERATOR FUELED BY CNG, FOR DEMONSTRATION IN DRAYAGE SERVICE AT THE PORTS OF LOS ANGELES AND LONG BEACH.	TRANSPORTATION POWER, INC.	\$0.00	6
08	LEGAL	C16063	01	SPECIALIZED LEGAL SERVICES	HOGAN LOVELLS US LLP	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16135	01	SECURITY GUARD SERVICES AT SCAQMD DIAMOND BAR HEADQUARTERS	CONTACT SECURITY INC.	\$0.00	1
26	PLANNING RULE DEV & AREA SOURCES	C16214	01	PROVIDE ASSISTANCE WITH CEQA SERVICES FOR SCAQMD RULE PROJECTS	PLACEWORKS INC	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16248	01	ELEVATOR SERVICE AND PREVENTATIVE MAINTENANCE	THYSSENKRUPP ELEVATOR CORP	\$21,415.00	
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA GELBERG & MAY LLP	\$0.00	6
20	MEDIA OFFICE	C17023	36	MEDIA, ADVERTISING AND PUBLIC OUTREACH CAMPAIGN FOR CHECK BEFORE YOU BURN PROGRAM	WESTBOUND COMMUNICATIONS INC	\$0.00	11
16	ADMINISTRATIVE & HUMAN RESOURCES	C17077	01	EXECUTIVE SEARCH AND RECRUITMENT SERVICES	CPS HUMAN RESOURCE CONSULTING	\$24,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17097	31	TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS AND FUELING INFRASTRUCTURE, EMISSIONS ANALYSIS AND ON-ROAD SOURCES	GLADSTEIN, NEANDROSS & ASSOCIATES	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17114	01	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO CHARACTERIZE HAZARDOUS AIR POLLUTANT EMISSIONS FROM REFINERIES AND ASSESS POTENTIAL IMPACTS TO SURROUNDING COMMUNITIES	FLUXSENSE AB	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17245	31	IN-USE EMISSIONS TESTING AND FUEL USAGE PROFILE OF ON-ROAD HEAVY-DUTY VEHICLES	WEST VIRGINIA UNIVERSITY INNOVATION CORP	\$0.00	6
08	LEGAL	C17273	01	PUBLIC/GOVERNMENTAL LEGAL SERVICES	JONES & MAYER	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17286	31	IN-USE EMISSIONS TESTING & FUEL USAGE PROFILE OF ON-ROAD HEAVY-DUTY VEHICLES	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17295	80	REPOWER 2 OFF-ROAD VEHICLES	HARBER COMPANIES, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17296	81	REPLACEMENT OF 10 LOCOMOTIVES	BNSF RAILWAY COMPANY	\$0.00	11
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	\$250.00	
08	LEGAL	C17318	01	SUNSHINE CANYON LANDFILL ORDER FOR ABATEMENT EXPERT WITNESS SERVICES	E TSENG & ASSOCIATES, INC.	\$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17331	31	CONDUCT IN-USE PARTICULATE MATTER EMISSIONS STUDY FOR GASOLINE DIRECT INJECTION ENGINES	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17349	31	ESTABLISH RENEWABLE NATURAL GAS CENTER	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17359	01	ENGAGE, EDUCATE, AND EMPOWER CALIFORNIA COMMUNITIES ON USE AND APPLICATIONS OF "LOW COST" AIR MONITORING SENSORS	COMITE CIVICO DEL VALLE, INC	\$4,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17367	31	DEVELOP AND EVALUATE AFTERTREATMENT SYSTEMS FOR LARGE DISPLACEMENT DIESEL ENGINES	SOUTHWEST RESEARCH INSTITUTE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17367	31	DEVELOP AND EVALUATE AFTERTREATMENT SYSTEMS FOR LARGE DISPLACEMENT DIESEL ENGINES	SOUTHWEST RESEARCH INSTITUTE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17403	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FENCECORP, INC.	\$0.00	1
16	ADMINISTRATIVE & HUMAN RESOURCES	C18035	01	COUNSEL: LIABILITY LITIGATION	DUNBAR & ASSOCIATES, A PROFESSIONAL LAW	\$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18064	01	CALIFORNIA LEGISLATIVE LATINO CAUCUS OUTREACH	LEE ANDREWS GROUP INC	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C18064	01	CALIFORNIA LEGISLATIVE LATINO CAUCUS OUTREACH	LEE ANDREWS GROUP INC	\$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18089	75	INSTALLATION OF AIR FILTRATION SYSTEMS AT SCHOOLS	IQAIR NORTH AMERICA, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18097	75	INSTALLATION OF AIR FILTRATION SYSTEMS AT SCHOOLS	IQAIR NORTH AMERICA, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18151	31	DEVELOP AND DEMONSTRATE BATTERY ELECTRIC SWITCHER LOCOMOTIVE	RAIL PROPULSION SYSTEMS LLC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18159	46	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO IDENTIFY AND CHARACTERIZE SOURCES OF HEXAVALENT CHROMIUM AND OTHER AIR TOXIC METALS	AERODYNE RESEARCH, INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18159	46	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO IDENTIFY AND CHARACTERIZE SOURCES OF HEXAVALENT CHROMIUM AND OTHER AIR TOXIC METALS	AERODYNE RESEARCH, INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18161	46	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO IDENTIFY AND CHARACTERIZE SOURCES OF HEXAVALENT CHROMIUM AND OTHER AIR TOXIC METALS	DESERT RESEARCH INSTITUTE	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C18162	01	THE FAITH BASED ENVIRONMENTAL SUSTAINABILITY PROJECT	GENESIS 1 CONSULTING GROUP	\$0.00	6
08	LEGAL	C18227	01	CONSULTING EXPERT REGARDING COMPLIANCE BY THE TORRANCE REFINING COMPANY WITH DECISIONS BY THE SCAQMD HEARING BOARD	AXTON POWER & CONTROL, LLC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18280	01	3 YEAR LEASE HONDA CLARITY PLUG-IN VEHICLE	HONDA OF PASADENA LLC	\$0.00	11
26	PLANNING RULE DEV & AREA SOURCES	C18381	01	LITERATURE REVIEW OF PUBLIC WELFARE BENEFITS OF CLEAN AIR	INDUSTRIAL ECONOMICS INCORPORATED	\$2,503.88	
08	LEGAL	C19031	01	OUTSIDE LEGAL COUNSEL FOR ADVICE ON FEDERAL LAWS/COMPLEX LITIGATION	KENDALL BRILL & KELLY LLP	\$2,710.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19132	01	13TH ANNUAL TASTE OF SOUL 2018 FAMILY FESTIVAL SPONSORSHIP	LOS ANGELES SENTINEL, INC	\$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C19152	01	FAITH BASED ENVIRONMENTAL SUSTAINABILITY LEADERS MEETING	SAINT SOPHIA GREEK ORTHODOX COMMUNITY	\$0.00	6

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18047	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	ANAHEIM UNION HIGH SCHOOL DISTRICT	\$0.00	0
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18050	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	BELLFLOWER UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18051	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	COACHELLA VALLEY UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18052	80	PURCHASE 1 ELECTRIC SCHOOL BUS WITH ASSOCIATED INFRASTRUCTURE	COVINA VALLEY UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18054	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	JURUPA UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18057	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	LYNWOOD UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18058	80	ELECTRIC SCHOOL BUS FUNDING PROGRAM	MAGNOLIA SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18060	80	ELECTRIC SCHOOL BUS FUNDING PROGRAM	MOUNTAIN VIEW SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18063	80	NEW ELECTRIC SCHOOL BUS FUNDING PROGRAM	TODAY'S FRESH START, INC	\$0.00	11
44	MSRC	ML05014	23	SYNCHRONIZE TWENTY FOUR TRAFFIC SIGNALS ON FLORENCE/MILLS AVENUES	COUNTY OF LOS ANGELES	\$0.00	6
44	MSRC	ML14021	23	INSTALL A CLASS 1 BIKEWAY	COUNTY OF RIVERSIDE	\$0.00	6
44	MSRC	ML14021	23	INSTALL A CLASS 1 BIKEWAY	COUNTY OF RIVERSIDE	\$0.00	6
44	MSRC	ML14023	23	UPGRADE VEHICLE MAINTENANCE FACILITY IN WESTCHESTER	COUNTY OF LOS ANGELES	\$0.00	6
44	MSRC	ML14024	23	UPGRADE MAINTENANCE FACILITY IN BALDWIN PARK	COUNTY OF LOS ANGELES	\$0.00	6
44	MSRC	ML14062	23	EXPAND EXISTING CNG FUELING STATION	CITY OF SAN FERNANDO	\$0.00	6
44	MSRC	ML16016	23	PURCHASE 21 HEAVY-DUTY CNG VEHICLES	CITY OF LOS ANGELES	\$0.00	1
44	MSRC	ML16054	23	IMPLEMENT "COMPLETE STREETS" PROJECT	CITY OF YUCAIPA	\$0.00	6
44	MSRC	ML16057	23	IMPLEMENT COUNTY LINE ROAD "COMPLETE STREETS" PROJECT	CITY OF YUCAIPA	\$0.00	6
44	MSRC	ML16071	23	IMPLEMENT BOULDER AVENUE "COMPLETE STREETS" PROJECT	CITY OF HIGHLAND	\$0.00	6

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	MSRC	ML18030	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF GRAND TERRACE	\$0.00	6
44	MSRC	ML18048	23	PURCHASE 3 MEDIUM-DUTY EV'S	CITY OF LYNWOOD	\$0.00	11
44	MSRC	MS12060	23	IMPLEMENT WESTSIDE BIKESHARE PROGRAM	CITY OF SANTA MONICA	\$0.00	6
44	MSRC	MS12060	23	IMPLEMENT WESTSIDE BIKESHARE PROGRAM	CITY OF SANTA MONICA	\$0.00	6
44	MSRC	MS14057	23	SIGNAL SYNCHRONIZATION PROGRAM	LOS ANGELES COUNTY METROPOLITAN	\$0.00	6
Subtotal						\$220,878.88	

V. TERMINATED CONTRACTS-PARTIAL/NO WORK PERFORMED

44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17302	32	REPLACEMENT OF 1 AND REPOWER OF 2 OFF-ROAD EQUIPMENT	EARTH TEK ENGINEERING CORP.	-\$75,673.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18311	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	MCKINNEY CONSTRUCTION CO., INC	-\$105.00	7
44	MSRC	ML16025	23	EXPAND CNG STATION AND PURCHASE HEAVY-DUTY CNG VEHICLE	CITY OF SOUTH PASADENA	-\$20,535.00	7
44	MSRC	MS12077	23	INSTALL CNG FUELING STATION	CITY OF COACHELLA	-\$225,000.00	7
44	MSRC	MS16092	23	IMPLEMENT OPEN STREET EVENTS	SAN BERNARDINO COUNTY TRANSPORTATION	-\$7,063.00	7
Subtotal						-\$328,376.00	

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SPECIAL FUNDS

17 ADV. TECH, OUTREACH & EDU FUND
22 AIR QUALITY IMPROVEMENT FUND
23 MSRC FUND
27 AIR QUALITY INVESTMENT FUND
31 CLEAN FUELS FUND
32 CARL MOYER FUND - SB1107 ACCOUNT
33 SCHOOL BUS REPLACEMENT PROGRAM
34 ZERO EMISSION VEHICLE INCENTIVE PROGRAM
35 AES SETTLEMENT PROJECTS FUND
36 RULE 1309.1 PRIORITY RESERVE FUND
37 CARB ERC BANK FUND
38 LADWP SETTLEMENT PROJECTS FUND
39 STATE EMISSIONS MITIGATION FUND
40 NATURAL GAS VEHICLE PARTNERSHIP FUND
45 CBE/CBO SETTLEMENT AGREEMENT FUND
46 BP ARCO SETTLEMENT FUND
48 HEALTH EFFECTS RESEARCH FUND
49 CEQA GHG MITIGATION FUND
50 DOE ARRA-PLUG-IN HYBRID ELECTRIC VEHICLES
51 DOE ARRA-LNG CORRIDOR EXPANSION
52 TRAPAC SCHOOL AIR FILTRATION
53 EMISSION REDUCTION AND OUTREACH FUND
56 HEROS II PROGRAM FUND
58 AB1318 MITIGATION FEES FUND
59 VOUCHER INCENTIVE PROGRAM FUND (VIP)
68 EXXONMOBIL SETTLEMENT PROJECTS FUND
75 AIR FILTRATION FUND
77 COMMUNITY AIR PROTECTION AB 134 FUND
80 CARL MOYER FUND - AB923 ACCOUNT
81 PROPOSITION 1B - GOODS MOVEMENT FUND
82 PROPOSITION 1B - LOWER EMISSION SCHOOL BUS

FOOTNOTES

1 NO FIXED VALUE
2 RATES VARY - NO FIXED VALUE
3 REVENUE CONTRACT - NO AMOUNT SHOWN
4 NO COST - COST REALLOCATION
5 CHANGED TO EMPLOYEE STATUS
6 NO COST- TIME EXTENSION
7 DE-OBLIGATION OF FUNDING
8 COMPETITIVE SOLICITATION ISSUED BY ANOTHER
GOVERNMENT AGENCY
9 NO COST - AIR MONITORING/LICENSE AGR
10 CNG VEHICLE PARTNERSHIP SELECTION
11 NO COST - CHANGE IN TERMS
12 FEDERAL GOVERNMENT PASS-THRU
13 AT DIRECTION OF LEGISLATIVE COMMITTEE
14 OPTIONAL YEAR RENEWAL/MULTI-YR CONTRACT
15 TRUCK GRANT PAID TO CASCADE SIERRA SOLUTIONS
THROUGH LEASE-TO-OWN PROGRAM. THIS CONTRACT
IS FOR OPERATION AND REPORTING ONLY.
16 AMOUNT UTILIZED MAY BE LESS THAN CONTRACT
AMOUNT.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 19

REPORT: Status Report on Major Ongoing and Upcoming Projects for Information Management

SYNOPSIS: Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects.

COMMITTEE: Administrative, February 8, 2019; Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

RMM:MAH:XC:agg

Background

Information Management (IM) provides a wide range of information systems and services in support of all SCAQMD operations. IM's primary goal is to provide automated tools and systems to implement Board-approved rules and regulations, and to improve internal efficiencies. The annual Budget specifies projects planned during the fiscal year to develop, acquire, enhance, or maintain mission-critical information systems.

Summary of Report

The attached report identifies each of the major projects/contracts or purchases that are ongoing or expected to be initiated within the next six months. Information provided for each project includes a brief project description and the schedule associated with known major milestones (issue RFP/RFQ, execute contract, etc.).

Attachment

Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

ATTACHMENT
March 1, 2019 Board Meeting
Information Management Status Report on Major Ongoing and
Upcoming Projects During the Next Six Months

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Implementation of Enterprise Geographic Information System (EGIS) Phase II	Continue to support accomplishment of the agency's mission through the effective and cost-efficient implementation of EGIS and related technologies		<ul style="list-style-type: none"> • Purchased ESRI extensions for OnBase • Completed three prioritized EGIS projects: <ul style="list-style-type: none"> ○ GIS Data Development ○ System Documentation ○ Portal/Mobile Development 	<ul style="list-style-type: none"> • Complete the three prioritized EGIS projects: <ul style="list-style-type: none"> ○ OnBase Expansion and GIS Integration ○ CLASS GIS Integration ○ One-click Site Report
Telecommunications Services	Select vendor(s) to provide local, long distance, telemetry, internet, cellular services, and phone system maintenance for a three-year period	\$750,000	<ul style="list-style-type: none"> • Released RFP October 5, 2018 • Board Approval January 4, 2019 • Executed contracts February 28, 2019 	<ul style="list-style-type: none"> • Migrate and upgrade services April 2019
Office 365 Implementation	Acquire and implement Office 365 for SCAQMD staff	\$350,000	<ul style="list-style-type: none"> • Pre-assessment evaluation and planning completed • Board action approved funding on October 5, 2018 • Developed implementation and migration plan • Acquired Office 365 licenses 	<ul style="list-style-type: none"> • Implement Office 365 email (Exchange) and migrate all users • Implement Office 365 file storage (OneDrive for Business) and migrate users • Implement Office 365 internal website (SharePoint) and migrate existing content

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 1	New Web application to automate the filing of all permit applications with immediate processing and issuance of permits for specific application types: Dry Cleaners, Gas Stations and Automotive Spray Booths	\$694,705	<ul style="list-style-type: none"> Phase 1 Automated 400A form filing, application processing, and online permit generation for Dry Cleaner module deployed to production Facility ID Creation Module deployed to production Phase 1.1 Automated 400A form filing, application processing, and online permit generation for Automotive Spray Booth and Gas Station Modules deployed to production 	<ul style="list-style-type: none"> Continue Phase 1.1 project outreach support Enhance calculations of sensitive receptor distances Enhance processing of school locations with associated parcels Upgrade GIS Map integration and enhanced sensitive receptor identification and distance measurement work
Permitting System Automation Phase 2	Enhanced Web application to automate filing process of Permit Applications, Rule 222 equipment, and registration process for IC Engines; implement electronic permit folder and workflow for internal SCAQMD users	\$525,000	<ul style="list-style-type: none"> December 2017 Board action approved initial Phase 2 funding May 2018 Phase 2 project startup and detail planning completed Business process model approved Development of Negative Air Machines, Boilers/Water Heaters/Process Heaters, Cooling Towers, Portable Heaters, and Food Ovens filing process completed 	<ul style="list-style-type: none"> User testing of completed Rule 222 forms including Negative Air Machines, Boilers/Water Heaters/Process Heaters, Cooling Towers, Portable Heaters, and Food Ovens User testing of new set of Rule 222 forms including Tar Pots, Asphalt Tankers, Asphalt Heaters, Aqueous Urea Storage, Agricultural Engines, and Diesel Fuel Boilers

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 2 (Continued)			<ul style="list-style-type: none"> • October 5, 2018 Board action approved remaining Phase 2 funding • Code development for Boilers, Heaters, Ovens, Baghouses, and IC Engines completed • Application submittals, and form filing of Char Broilers, Small Boilers, and Oil Wells processing completed • Wireframes and user stories for Tar Pots/Tar Kettles, Asphalt Day Tankers, and Asphalt Pavement Heaters completed • Development of new set of Rule 222 forms including Tar Pots, Asphalt Tankers, Asphalt Heaters, Aqueous Urea Storage, Agricultural Engines, and Diesel Fuel Boilers 	<ul style="list-style-type: none"> • Wireframes, user stories, and code development for Micro Turbines, Storage of Odorants, and Storage of Aqueous Urea Solutions •
Information Technology Review Implementation	Complete Board requested Information Technology review and initiate work on implementation of key recommendations	\$75,000	<ul style="list-style-type: none"> • Initiated Implementation Planning and Resource Requirements for key recommendations • Conducted recruitment process to fill Systems & Programming Supervisor position • Completed Microsoft Project Plan training for all IM Managers, Supervisors and Secretaries 	<ul style="list-style-type: none"> • Office 365 deployment

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Information Technology Review Implementation (continued)			<ul style="list-style-type: none"> Established Information Technology Steering Committee, members and charter Configured and deployed Project Management software for IM team 	
Permit Application Status and Dashboard Statistics	New Web application to allow engineers to update intermediate status of applications; create dashboard display of status summary with link to FIND for external user review	\$100,000	<ul style="list-style-type: none"> December 2017 Board action approved funding April 2018 project startup and detail planning completed June 2018 wireframe and user story approved for Release 1 User story and wireframe approved for application search module User stories approved and coding completed for Dashboard Data Entry screens 	<ul style="list-style-type: none"> Code development for Release 1 Code development for application search module User acceptance testing for data capture module User acceptance testing for user reports Internal deployment of application for engineers to populate application related data
Agenda Tracking System Replacement	Replace aging custom agenda tracking system with state-of-the-art, cost-effective Enterprise Content Management (ECM) system, which is fully integrated with OnBase, SCAQMD's agency-wide ECM system	\$86,600	<ul style="list-style-type: none"> Released RFP December 4, 2015 Awarded contract April 1, 2016 Continued parallel testing Conducted survey of stakeholder satisfaction As a result of the survey responses, the decision was made to develop a custom user interface for the application 	<ul style="list-style-type: none"> Identify funding source

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Agenda Tracking System Replacement (continued)			<ul style="list-style-type: none"> Revised project scope to include custom user interface Developed plan and schedule for revised scope 	
Document Conversion Services	Document Conversion Services to convert paper documents stored at SCAQMD facilities to electronic storage in OnBase	\$83,000	<ul style="list-style-type: none"> Released RFQ October 5, 2018 Approved qualified vendors January 4, 2019 	<ul style="list-style-type: none"> Execute purchase orders for scanning services
Replace Your Ride (RYP)	New Web application to allow residents to apply for incentives to purchase newer, less polluting vehicles	\$301,820	<ul style="list-style-type: none"> Phase 2 Fund Allocation, Administration and Management Reporting modules deployed and in production Final Phase 2 user requested enhancements: VIN Number, Case Manager, Auto e-mail and document library updates deployed to production Phase 3 Data Migration development work completed 	<ul style="list-style-type: none"> Phase 3 user approval for production Implementation of Electric Vehicle Service Equipment and alternative mode of transportation in the RYP application Approval of data migration Approval of Phase 3 move to production
SCAQMD Mobile Application for iOS devices Phase 2	Enhancement of Mobile application with addition of Enhanced Notifications, Complaint Filing and Facility Information Detail	\$100,000	<ul style="list-style-type: none"> Project Charter released Proposal received Task order issued 	<ul style="list-style-type: none"> System design

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
SCAQMD Mobile Application for Android devices Phase 1	New mobile application for Android devices which will have the same functionality as the new iOS application	\$75,000	<ul style="list-style-type: none"> • Project Charter released • Proposal received • Task order issued 	<ul style="list-style-type: none"> • System design
FIND System Replacement	Update and replace Facility Information Detail (FIND) application	\$148,150	<ul style="list-style-type: none"> • Task order issued, evaluated and awarded • Detail project planning completed • Wireframe approved • Development completed • Automated Testing completed • Beta testing completed • User outreach and training completed • System moved to production 	<ul style="list-style-type: none"> • Phase 2 requirements gathering
Legal Division New System Development	Develop new web-based case management system for Legal Division to replace existing JWorks System	\$500,000	<ul style="list-style-type: none"> • Task order issued, evaluated and awarded • Project initiated and project charter finalized • Business Process Model completed • Functional and system design received 	<ul style="list-style-type: none"> • Code development for Sprint 1 – NOV tracking and MSPAP case management • Data model design

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Flare Event Notification – Rule 1118	Develop new web-based application to comply with Rule 1118 to improve current flare notifications to the public and staff	\$100,000	<ul style="list-style-type: none"> • Vision & Scope issued • Charter Document and proposal approved • Task order to be issued • Requirement gathering for Sprint 1 & 2 completed • System Design for Sprint 1 & 2 completed 	<ul style="list-style-type: none"> • Requirement gathering for Sprint 3 • System Design for Sprint 3
VW Environmental Mitigation Action Plan Project	CARB has assigned SCAQMD to develop web applications for two projects: Zero-Emission Class 8 Freight and Port Drayage Truck Project & Combustion Freight and Marine Project. SCAQMD is responsible for developing a web application for both incentive programs, and maintaining a database that will be queried for reporting perspectives for CARB	\$650,000 (Budget Estimate pending grant approval)	<ul style="list-style-type: none"> • Draft Charter Document issued 	<ul style="list-style-type: none"> • Approve timeline and milestones • Approve Charter • Budget Transfer • Approve qualifying vendor • Requirement gathering • Functional and system design
AQ-SPEC Cloud Platform	Develop a cloud-based platform to manage and visualize data collected by low-cost sensors		<ul style="list-style-type: none"> • Task Order Issued • Proposals Received 	<ul style="list-style-type: none"> • Task Order to be awarded

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
PeopleSoft Electronic Requisition	SCAQMD is implementing electronic requisition for PeopleSoft Financials. This will allow submittal of requisitions online. Additional benefits include tracking of multiple levels of approval, electronic archival of requisition documents, pre-encumbrance of budget, and streamlined workflow.		<ul style="list-style-type: none"> • Project Charter Approved • Task Order Issued • Proposal Received • Task Order Awarded • Requirement Gathering for Sprint 1 Completed • Design for Sprint 1 Completed 	<ul style="list-style-type: none"> • Code Development for Sprint 1
Renewal of HP Server Maintenance & Support	Purchase of maintenance and support services for servers and storage devices	\$120,000		<ul style="list-style-type: none"> • Request Board approval March 1, 2019 • Execute contract April 30, 2019

Projects that have been completed are shown below.

Completed Projects	
Project	Date Completed
Website & Evaluation Improvements	January 6, 2018
Information Technology Review	January 31, 2018
Prequalify Vendor List for PCs, Network Hardware, etc.	February 3, 2018
Renewal of HP Server Maintenance & Support	April 6, 2018
Implementation of Enterprise Geographic Information System (EGIS) Phase I	May 30, 2018
Fiber Cable Network Infrastructure Upgrade	May 30, 2018
Air Quality Index Rewrite and Migration	June 29, 2018
AQMD Mobile Application for iOS devices Phase 1	November 2, 2018
CLASS Database Software Licensing and Support	November 30, 2018

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 20

PROPOSAL: Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17

SYNOPSIS: This report contains data on the AB 2766 Subvention Fund Program for FY 2016-17 as requested by CARB. This action is to approve the AB 2766 Annual Report.

COMMITTEE: Mobile Source, February 15, 2019; Recommended for Approval

RECOMMENDED ACTION:

Approve the Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17, for submittal to CARB.

Wayne Nastri
Executive Officer

PF:SR:CG:KH:LG

Background

In September 1990, Assembly Bill 2766 (AB 2766) was signed into law authorizing a \$2 motor vehicle registration fee surcharge, with a subsequent increase to \$4 in 1992. Section 44223 of the Health & Safety (H&S) Code, enacted by AB 2766, specifies that this motor vehicle registration fee be used “...*for the reduction of air pollution from motor vehicles pursuant to, and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act of 1988.*”

Local jurisdictions receive 40 percent of the first \$4 of each vehicle registration fee to implement projects that reduce mobile source emissions. The SCAQMD distributes these funds quarterly to South Coast cities and counties based upon their prorated share of population. In 2004, an additional \$2 surcharge was added pursuant to H&S Code Section 44229 to provide a source of funding for expansion of the Carl Moyer Memorial Air Quality Standards Attainment program. This additional funding will incentivize early introduction of clean air technology, such as cleaner vehicle engines, a Lower-Emission School Bus Program, and accelerated vehicle repair and retirement programs.

Local agencies that are subvented motor vehicle registration fees for motor vehicle emissions reduction programs report annually to SCAQMD on their use of the fees, and the results of programs funded by the fees. The reporting by local governments follows the guidelines and methodology specified by CARB. The attached report details local government expenditures during FY 2016-17.

Summary of Subvention Fund Program Report

This report accounts for the types of projects, financial expenditures, quantifiable emission reductions, and associated cost-effectiveness for projects implemented by local governments through the AB 2766 Subvention Fund Program for FY 2016-17.

Staff provided project eligibility guidance, technical assistance, and training sessions to local government representatives. During these interactions, staff addressed program challenges unique to specific cities/counties, assisted with emission calculations, and provided hands-on instruction in the use of the CARB automated reporting system. AB 2766 outreach to local government officials, city managers, and program liaisons will continue to be provided by staff, and will encourage the implementation of more quantifiable, cost-effective projects that yield direct mobile source emission reductions.

During FY 2016-17, local governments received \$22.6 million from motor vehicle fees and spent \$17.6 million on mobile source emission reduction projects. Approximately \$49 million or 88 percent of their ending balances (which includes unspent monies from prior years) was pre-designated for future projects, which is an increase from the 72 percent pre-designation of funds in FY 2016-17. Expenditures in the Alternative Fuels/Electric Vehicles and Transportation Demand Management categories were the two highest spending categories as many local governments direct their spending priorities towards purchasing/leasing of alternative fuel/electric vehicles and implementation of transit subsidization and trip reduction projects.

Quantifiable emission reductions from projects implemented during FY 2016-2017 reduced 134 (VOC, NO_x, PM_{2.5} and CO/7) tons of emissions. The emissions reduced from projects funded had an overall average cost-effectiveness of \$25.73 per pound of emissions reduced which is a significant change from the prior cycle (\$0.74 per pound of emissions reduced). Reevaluation of the Automatic Traffic Surveillance and Control project emissions reduction quantification methodology reported in the Traffic Management category significantly reduced the estimated emissions reductions from that project (5,783 tons in 2016 to 0.7 tons in 2017) and reduced overall emission reductions from the prior cycle (6,190 tons in 2016).

In accordance with H&S Code Section 44244.1, any agency receiving AB 2766 fee revenues is subject to a program or funding audit conducted by an independent auditor selected by the SCAQMD. Further, in response to previous Board concerns raised regarding the pooling of AB 2766 funds between local governments and Councils of Government (COGs), a Summary of COG Activities in the report identifies the respective Councils of Governments that received AB 2766 subvention funds from member cities and counties, and includes project descriptions.

Proposal

Approve the attached staff report for submittal to CARB.

Attachment

Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
--

**Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for
FY 2016-17**

March 1, 2019

Executive Officer

Wayne Nastri

Deputy Executive Officer

Planning, Rule Development & Area Sources

Philip Fine, Ph.D.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
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County of San Bernardino

EXECUTIVE OFFICER:
WAYNE NASTRI

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Other Information Available on SCAQMD's Website or Upon Request

<http://www.aqmd.gov/home/programs/local-government>

- AB 2766 Motor Vehicle Fee Subvention Fund Program Resource Guide
- CARB Criteria and Guidelines for the Use of Motor Vehicle Registration Fees
- AB 2766 Funds Report from Motor Vehicle Registration Fees - Previous Years Staff Reports

EXECUTIVE SUMMARY

During Fiscal Year 2016-17, 162 local governments in the South Coast Air District were eligible to receive AB 2766 Subvention Funds. In summary, these jurisdictions were subvented \$22.6 million to implement projects that reduce mobile source emissions. From their AB 2766 fund balances, local governments spent \$17.7 million. The two highest spending categories were Alternative Fuels/Electric Vehicles and Transportation Demand Management, which claimed a combined total of 53% of the \$17.7 million program expenditures. The two project categories yielding the highest portion of emission reductions for this fiscal reporting cycle were Traffic Management and Transportation Demand Management. In total, local governments implemented 359 projects of which 220 reported quantified emission reductions.

I. BACKGROUND

On-road motor vehicles, including cars, trucks and buses, represent the most significant sources of air pollution in the South Coast Air Basin (SCAB). Vehicle emissions from exhaust contribute to unhealthy levels of ozone and toxic air contaminants. To protect public health, Assembly Bill 2766 was signed into law in September 1990. Section 44223 of the Health & Safety (H&S) Code authorized a \$2 motor vehicle registration fee surcharge, effective April 1991, to fund the implementation of programs designed to reduce air pollution from motor vehicles and to implement the California Clean Air Act of 1988. H&S Code Section 44225 authorized a subsequent increase in this fee to \$4, effective April 1992. In 2004, an additional \$2 surcharge was added pursuant to H&S Code 44229 to provide a long-term source of funding for expansion of the Carl Moyer Memorial Air Quality Standards Attainment Program and to incentivize early introduction of clean air technology such as cleaner diesel engines; a Lower-Emission School Bus Program; and, accelerated vehicle repair and retirement programs.

For the first \$4 of the funds, AB 2766 requires that fees collected by the California Department of Motor Vehicles (DMV) be subvented to the South Coast Air Quality Management District (SCAQMD) for the purpose of funding three programs with a prescribed allocation as follows: The Local Government Subvention Fund Program portion (40%) is distributed on a quarterly basis to South Coast Air Basin cities and counties based upon their prorated share of population to implement projects that reduce emissions from mobile sources; the SCAQMD Program Fund (30%) goes towards agency planning, monitoring, research and other activities that reduce mobile source emissions; the Discretionary Fund Program (30%) is administered by the Mobile Source Air Pollution Reduction Review Committee (MSRC), which awards money to project proponents that also reduce motor vehicle emissions. AB 2766 funded projects have many additional benefits including increasing transportation alternatives, relieving traffic congestion, conserving scarce energy resources and reducing greenhouse gas emissions.

In March of 2017, the SCAQMD adopted the 2016 Air Quality Management Plan (AQMP) as the blueprint for attainment of federal ozone and PM 2.5 standards in the South Coast Air Basin by 2031. The 2016 AQMP brought renewed focus to the role that mobile source emissions play in attainment of these standards. Future mobile source control measures are identified in the AQMP as well as planning opportunities available for SCAB agencies to align transportation policy, infrastructure modernization, and emission control goals. The SCAQMD's AB 2766 staff actively works with local governments to

align their planning efforts with policy objectives of the AB 2766 Subvention Fund Program and the AQMP blueprint designed to meet State and Federal Clean Air Act attainment standards.

II. REPORTING

This Staff Report solely addresses the AB 2766 funds subvended to local governments by accounting for financial expenditures, emissions reduced, and the cost-effectiveness of projects implemented through the AB 2766 Subvention Fund Program during FY 2016-17.

AB 2766 fees are collected by the DMV and subvended to the SCAQMD on a monthly basis. The SCAQMD Finance Division disburses the AB 2766 revenues to local governments quarterly. During FY 2016-17, 162 local governments were eligible to receive AB 2766 funds (see Attachment A). Pursuant to H&S Code 44243(b)(1), newly incorporated cities may receive subvention funds, provided they adopt and transmit to the SCAQMD the required ordinance within 90 days of official incorporation.

The city or county receiving such AB 2766 funds is required to deposit them into an air quality improvement trust fund for expenditures to reduce air pollution from motor vehicles, pursuant to H&S Code 44243(b)(1)(c). Fund recipients complete and submit an annual report to the SCAQMD identifying the revenues received, project expenditures, emissions reduced, and cost-effectiveness of each project implemented during the preceding fiscal reporting cycle.

SCAQMD staff provides technical assistance and project eligibility guidance to fund recipients according to AB 2766 criteria and guidelines established by the California Air Resource Board (CARB). Staff receives, reviews, evaluates and “accepts” the AB 2766 reports submitted; however, SCAQMD has not been given specific authority to “approve” or “disapprove” a local government’s use of AB 2766 funds, H&S Code 44243(b)(1). Audit requirements of H&S Code Sections 44244.1 *et seq.* specify required actions for fund recipients based upon local government’s adherence to program guidelines. Audit determinations confirming that recipients have expended revenues contrary to statute or which will not result in the reduction of pollution from motor vehicles, shall upon required public hearing(s), result in the inappropriate expense amount being withheld from future revenue distribution and then redistributed among the remaining recipients. Local jurisdictions are encouraged to pre-designate funds for specific projects that may be implemented in the future.

AB 2766 financial and project reporting from local governments occurs cyclically following notification from SCAQMD that the program tools are available. As the implementing agency, SCAQMD coordinates the update of program resources with CARB to facilitate local government report submittals.

Due to a reprioritization of CARB’s AB 2766 program resources, which resulted in a postponement in information necessary for report completion, FY 2016-17 report submittals from fund recipients were delayed, resulting in an abbreviated period of data collection and review by SCAQMD staff. Toward the goal of enhancing program efficiency and timeliness, recent collaboration between SCAQMD and CARB may result in an agreement for SCAQMD to directly manage the program resources necessary for local government reporting. While discussions are ongoing, the District looks forward to continuing collaborative efforts to streamline the subvention fund reporting process and more closely align project implementation with AQMP emission reduction strategies.

SCAQMD's AB 2766 Annual Report is forwarded to CARB after approval by the SCAQMD Governing Board.

III. PROGRAM GUIDANCE

Purpose

As directed by the Governing Board in 1998, the SCAQMD's AB 2766 staff serves as a resource to cities and counties by providing guidance in project identification, development, quantification, and reporting. Special emphasis is placed on the selection of cost-effective, quantifiable mobile source emission reduction projects that meet the needs of the local jurisdiction and that advance the objectives of the AQMP.

An AB 2766 Subvention Fund Program Resource Guide (Resource Guide), developed by the SCAQMD, is available to provide assistance in identifying projects that are eligible for AB 2766 funding. The Resource Guide outlines project eligibility requirements, provides program updates, policies, and guidelines to assist local jurisdictions that receive AB 2766 funds. Project descriptions and examples provided in the Resource Guide are consistent with CARB's Criteria and Guidelines for the Use of Motor Vehicle Registration Fees, which focuses on strategies that directly reduce mobile source emissions.

Activities

SCAQMD staff reviews the AB 2766 program data and collaborates with CARB staff on ways to improve the process for local governments to report their AB 2766 funded project results. SCAQMD staff conducts technical training sessions for local government and Councils of Government (COG) representatives to provide an overview of program updates, guidelines, policies, and responds to inquiries related to local projects/programs.

Staff conducted twelve (12) AB 2766 technical training sessions and open office hours during the months of July and August, 2018, at which 91 local government representatives attended. Training included an overview of the program's authorizing legislation; prior year project reporting; emission reductions and financial summaries; as well as a detailed review of program guidelines developed by CARB and SCAQMD. Expenditure limitations, preferred projects that provide quantifiable, cost-effective emission reductions, common reporting errors, and administrative tips were of key focus during the trainings. Requirements related to the financial administration of AB 2766 dollars were reviewed in detail, with emphasis on fund accounting and auditing guidelines.

The training sessions also included information from the Mobile Source Air Pollution Reduction Review Committee (MSRC) staff on their 2017 Local Government Partnership Program's reserved funds available to eligible jurisdictions. Throughout the year, AB 2766 staff worked closely with Legislative, Public Affairs and Media (LPAM) staff to coordinate outreach efforts related to the new funding opportunity.

As specialists in administration of subvention funds, AB 2766 staff were uniquely positioned to help jurisdictions plan projects that would maximize subvention fund leveraging with the resources made available by the MSRC. Extensive coordination among District staff for fund recipient outreach helped raise awareness and increase the number of applications submitted to the Local Government Partnership Program. Concerted efforts by the staff of AB 2766, LPAM, and MSRC helped achieve a 67% participation rate of eligible jurisdiction applications.

During a component of training, staff guided attendees through project categories and instructed local government representatives on how to identify and input applicable emission factors, as well as other project variables required for calculation of emission reductions and cost effectiveness. Training also included detailed instructions on the AB 2766 OnBase process that local governments use to submit their subvention fund reports to the SCAQMD. Local governments access the OnBase system using customized logins and passwords, download and complete the current year Microsoft Access reporting file, and directly upload their completed AB 2766 Annual Reports. This system automatically notifies the transmitting entity, via email, of the status of the Annual Report transmission. In addition to the direct uploading of AB 2766 Annual Reports, the system allows local jurisdictions to monitor the status of SCAQMD's review (pending, questions, or accepted). The OnBase system also has a feature which gives local governments' access to their previously submitted reports. Use of the OnBase system fosters enhanced AB 2766 program efficiency, time savings, as well as record retention and accessibility for SCAQMD staff and participating local jurisdictions.

On an on-going basis, SCAQMD staff assists local governments with project/program selection, emission reduction calculations and guidance on use of the Access reporting file for future project planning. As an additional support for fund recipients, SCAQMD staff developed AB 2766 Access File Instructions to assist local governments in completing their AB 2766 Annual Reports via Microsoft Access. The Access File Instructions Guide is a tool intended to assist local governments in accurately reporting their projects/programs implemented with AB 2766 funds. It also informs local jurisdictions of eligible, quantifiable, cost-effective projects that yield direct mobile source emission reductions.

SCAQMD staff has received and evaluated the FY 2016-17 Annual Reports submitted by the 162 participating local jurisdictions. The results are summarized in the Program Data section of this report.

Local Government Coordination

Local governments may contribute a portion of their AB 2766 subvention funds to their respective COGs in an effort to pool resources for implementation of eligible projects. In expending these funds, COGs must adhere to the same project eligibility requirements and guidelines as recipient jurisdictions when implementing air quality projects funded by AB 2766 dollars. For monitoring purposes, COGs are asked to provide summary reports to their member cities as well as to the SCAQMD, including descriptions of AB 2766 projects along with funding amounts. COG summary reports should align with local jurisdiction reporting to SCAQMD. Table 1 provides a summary of the projects and programs implemented by COGs using AB 2766 funds received from their member cities.

Table 1
Summary of COG Activities

COG Name	Expenditure Amount*	Project Description**
Coachella Valley	\$205,213	Regional PM Street Sweeping Program using alternative fuel equipment to sweep approximately 23,140 curb miles to remove roadway dust.
Western Riverside	\$94,150	Clean Cities Coalition activities/outreach promoting emission reductions from motor vehicles through alternative fuel and advanced technology vehicles; AQMP Outreach and Western Riverside County Active Transportation Plan development.
Gateway Cities	\$65,597	Development of the Air Quality/Active Transportation elements of the Gateway Cities Strategic Transportation Plan (STP).

*Expenditure amounts as reported by COG member cities.

**Project descriptions as reported by the COG.

IV. PROGRAM DATA

Project Categories

The Resource Guide summarizes CARB's fund usage criteria and identifies appropriate strategies that, through careful planning and design, will cost effectively and efficiently reduce emissions from mobile sources. The following list identifies eleven AB 2766 Project Categories and provides examples of projects that meet the criteria and guidelines established by CARB:

1. **Alternative Fuels/Electric Vehicles** – Purchasing/leasing alternative fuel vehicles (automobiles, vans, shuttles or buses) powered by compressed natural gas, propane, full non-diesel hybrids that meet specific CARB certification standards, as well as fuel cell and electric vehicles. Projects that assist local jurisdictions with fleet conversions or repowering from conventional gas to an alternative fuel engine. Installation of alternative fuel and electric charging infrastructure that supports the use of alternative fuel and electric vehicles; and, purchasing alternative fuel or electricity for up to three years after vehicle purchase.
2. **Vehicle Emissions Abatement** – Purchasing/leasing cleaner diesel engines when alternative fuel engines are not available; repowering of heavy-duty trucks with cleaner burning diesel engines. Installation of particulate trap retrofits for diesel engines; retirement and replacement of dirty off-road engines with newer, cleaner diesel engines. Participation in a certified Old Vehicle Scrapping Program. Purchasing/leasing of electric ride-on commercial lawn mowers.
3. **Land Use** - Planning, designing, and constructing/installing facilities that discourage and decrease the use of automobiles. Providing adequate or expanding existing pedestrian

facilities that make it easier for people to walk, bicycle, or use public transit. Developing Air Quality Action Plans, Strategic Transportation Plans or an Air Quality Element of a General Plan. Funding CEQA related studies that will identify surplus mobile source mitigation measures or project alternatives resulting in reduced emissions.

4. **Public Transportation** – Introducing, marketing or implementing new or extended transit services or rail feeder operations. Constructing, installing or enhancing public transportation facilities designed to provide new or extended services or to increase passenger safety. Installing equipment that contains public transit information and fare subsidies. Providing transit fare discounts and subsidies.
5. **Traffic Management and Signal Coordination** – Implementing projects/programs that monitor and control travel conditions. Installing corridor signal synchronization systems; design and installation of pedestrian islands, turning lanes, pedestrian traffic controls and/or changeable message signs that reduce idling and improve traffic flow. Mobilization of freeway tow truck services.
6. **Transportation Demand Management (TDM)** – Implementing projects that reduce the demand for automobile use by encouraging behavioral changes regarding travel modes, i.e., encourage carpooling, vanpooling, biking, walking, use of public transit, telecommuting, or implementation of compressed work week schedules. Designing, developing, and implementing programs that focus on reducing trips to special event centers or other attractions; creation and enhancement of Park and Ride facilities.
7. **Market Based Strategies** – Developing and implementing incentives and disincentives that encourage behavioral changes resulting in emission reductions; introduction of user fees or congestion charges to encourage behavioral changes for consumers to use less congesting or less polluting forms of transportation; implementation of Parking Cash-out Programs.
8. **Bicycles** – Implementing projects that encourage the use of bicycles by employees and residents; bike share and/or purchasing programs, bike loan programs (motorized and standard) for police officers, community members, and the general public. Designing, developing and/or installing bike lanes, paths and bikeways or establishing new bicycle corridors physically separated from motor vehicle traffic; making bicycle facility enhancements/improvements by installing bicycle lockers, bike signals or bus bike racks.
9. **PM Reduction Strategies** – Implementing measures that reduce or prevent deposits of dust and other materials from build-up on roadway surfaces such as paving of dirt roads and shoulders; purchasing/leasing SCAQMD Rule 1186.1 compliant street sweepers.
10. **Public Education** – Long-term/short-term, routine, regularly scheduled, intermittent or frequent information brochures, videos, printed materials that provide a focused message which targets behavioral changes resulting in mobile source emission reductions and reduced reliance on motor vehicles. Marketing of demonstration or pilot projects, coordinating promotional events or programs to educate schools or the public about transportation alternatives, and the relationship between motor vehicles and air pollution.

11. **Miscellaneous Projects** – Designing, developing and/or implementing projects or programs that reduce mobile source emissions, but are not specifically listed or identified in the AB 2766 Resource Guide. Projects that result in emission reductions, but use a manual or alternative CARB-approved methodology. Specific details on the type of project being implemented, cost-effectiveness and emission reductions achieved as well as data/explanation on the CARB-approved methodology used in the calculations/analysis must be provided and deemed acceptable.

NOTE: *Research and Development (R&D) projects are allowable AB 2766 expenditures. However, the expenditure(s) must not exceed 10% of the AB 2766 funds received for the reporting cycle. Funds used for Public Education and CEQA related studies must also adhere to the 10% expenditure threshold.*

Project Funding & Quantification

A financial summary of funds spent by local governments in the SCAB region during FY 2016-17 is provided in Table 2. Local governments have the ability to carry over fund balances indefinitely, which allows them the flexibility to accumulate funding for future projects or to secure additional co-funding. Local governments spent less subvention funds on mobile source emission reduction projects (\$17.7 million) than the amount received (\$22.6 million). They spent 23.4% of their combined beginning balance and MV fees received (\$75.3 million), which is a decrease from what occurred in FY 2015-16, when cities and counties spent 28.2% of the total beginning balances and MV fees received (\$67.8 million). However, cities pre-designated a larger amount of funds than in prior years which indicates an awareness of the need to accumulate funds in the 2016-17 fiscal year for future program and technology investments.

Table 2 shows that of the \$57.6 million ending balance reported by local governments, approximately \$49.3 million, or 85% of the ending balance was pre-designated for future projects. This indicates an increase to what occurred in FY 2015-16, when only 70% of the region-wide ending balance was pre-designated for future projects, and is a continued increase compared to FY 2014-15 when 66% of the remaining funds were pre-designated. With emphasis from SCAQMD's AB 2766 staff, local jurisdictions are showing a better understanding of the need for pre-designating funds to help better plan for policy and project implementation that meet local needs while advancing regional air quality goals.

Table 2
Motor Vehicle (MV) Funds Financial Summary
(As Reported by Local Jurisdictions)

County	Beginning Balance	MV Fees Received	Project Spending	Ending ¹ Balance	Pre-designated Funds	Funds Remaining
Los Angeles	\$28,113,369	\$13,048,612	\$10,110,095	\$31,056,974	\$27,654,669	\$3,402,305
Orange	\$13,078,952	\$4,257,916	\$3,412,138	\$13,938,257	\$11,009,879	\$2,928,378
Riverside	\$5,287,799	\$3,039,305	\$2,391,932	\$5,953,510	\$4,692,660	\$1,260,850
San Bernardino	\$6,243,199	\$2,219,946	\$1,741,348	\$6,681,087	\$5,913,208	\$767,879
Totals*	\$52,723,319	\$22,565,779	\$17,655,513	\$57,629,828	\$49,270,416	\$8,359,412

*Totals may vary due to rounding.

Table 3 shows the funding, project expenditure levels, and funds pre-designated by local governments over the last five fiscal year reporting cycles. AB 2766 funding subvended to local governments has increased, from \$22.1 million (FY 2015-16) to \$22.6 million, for this reporting cycle, but while local governments spent a lower percentage (78% or \$17.6 million) of the funds received on AB 2766 projects compared to the prior reporting cycle (87% or \$19.2 million), their pre-designation of funds for planning purposes significantly increased, as mentioned on the previous page.

Table 3
History of Motor Vehicle Funds Financial Summary

Fiscal Year	Beginning Balance	MV Fees Received	Project Spending	Ending Balance	Pre-designated Funds	Funds Remaining
2012-13	\$41,152,100	\$20,095,200	\$18,556,900	\$42,562,000	\$30,785,600	\$11,776,400
2013-14	\$42,292,200	\$20,295,100	\$19,783,800	\$42,803,400	\$29,534,600	\$13,268,800
2014-15	\$43,512,253	\$21,738,605	\$16,965,994	\$48,250,812	\$31,831,121	\$16,419,691
2015-16	\$45,783,106	\$22,099,037	\$19,163,200	\$48,821,026	\$33,967,602	\$14,853,424
2016-17	\$52,723,319	\$22,565,779	\$17,655,513	\$57,629,828	\$49,270,416	\$8,359,412

1 The Ending Balance represents the Beginning Balance and MV Fees Received, minus Project Spending. Interest Earned and Administrative Costs are incorporated. Interest Earned and Administrative Costs are fully detailed in Appendix B.

Table 4 identifies, by county, the number of projects funded by local governments and of those, the number and percentages of projects with quantified emission reductions achieved during FY 2016-17. Los Angeles County has the majority of the cities in the South Coast Air Basin and therefore funded the largest number of AB 2766 projects in the program (175). Orange County had the second highest number of projects funded (90), followed by Riverside County (59) and San Bernardino (35). For this reporting cycle, Los Angeles County has yielded the highest percentage (62%) of quantified projects.

Table 4
Local Government Project Reporting and Emission Reduction Quantification

County	Number of Local Governments Reporting	Number of Projects Funded	Number of Projects with Emission Reductions Quantified	Percent of Projects with Emission Reductions Quantified
Los Angeles	82	175	108	62%
Orange	35	90	56	62%
Riverside	28	59	35	59%
San Bernardino	17	35	21	60%
Totals	162	359	220	61%

Table 5 shows 220 projects with emission reductions quantified, which is a decrease from the 261 projects quantified in FY 2015-16. Overall, the total number of projects funded by local governments over the last five fiscal reporting cycles has resulted in project quantifications above 60%. Due to the increase in pre-designated funds in general, and the specific projects described in the cities' pre-designated fund descriptions, it is anticipated that the majority of subvention fund projects in the next reporting cycle will have quantified emission reductions.

Every year, CARB updates and provides the District emission reduction calculation methodologies, along with the corresponding emission factors for some of the most widely implemented transportation projects funded through this program. The annual emission reductions, as well as the cost-effectiveness of the projects, are calculated based on those emission factors and local government reporting of project spending. Emission reductions from several types of projects are difficult to quantify or cannot be quantified, such as research and development and infrastructure projects, as well as Public Education and Outreach programs, therefore CARB has not adopted methodologies for those projects.

Table 5
Project Quantification History

Year	Number of Projects	Projects with Emission Reductions Quantified	Percent of Projects Quantified	Percent of Expenditures Quantified
FY 2012-13	319	203	64%	71%
FY 2013-14	353	222	63%	67%
FY 2014-15	368	229	62%	64%
FY 2015-16	395	261	66%	73%
FY 2016-17	359	220	61%	66%

Data in Table 6 shows the FY 2016-17 expenditures made in ten of the eleven AB 2766 project categories. There were no projects reported in the Market Based Strategies project category, as has been the case since FY 2006-07. Table 6 shows FY 2016-17 expenditures by category, from the highest to the least, in local government spending. The two highest spending categories are the Alternative Fuels/Electric Vehicles and Transportation Demand Management categories, which together represents 52% or about \$9.2 million of the \$17.7 million program expenditures. A significant amount of these funds were spent towards purchasing/leasing of alternative fuel/electric vehicles, installation of supporting alternative fuel infrastructure, and implementation of employer-based trip reduction programs.

Table 6
Expenditures by Project Category

Project Category	Project Spending*	Percent of Spending*	# of Projects
(1) Alternative Fuels/Electric Vehicles	\$5,238,818	30%	99
(6) Transportation Demand Management	\$3,980,332	23%	65
(5) Traffic Management	\$2,825,101	16%	52
(11) Miscellaneous Projects	\$1,264,304	7%	42
(8) Bicycles	\$1,243,799	7%	25
(4) Public Transportation (Transit & Rail)	\$1,234,748	7%	30
(9) PM Reduction Strategies	\$1,001,014	6%	19
(3) Land Use	\$528,240	3%	16
(10) Public Education	\$303,867	2%	9
(2) Vehicle Emissions Abatement	\$35,292	0%	2
Totals*	\$17,655,513	100%	359

* Totals may vary due to rounding.

Emission Reductions & Cost-Effectiveness

Table 7 summarizes, by county, the number of projects funded, project spending, and the emission reductions achieved. Local governments in Los Angeles County reported the vast majority of project spending, \$10.1 million, and also achieved the majority of annual emission reductions, 73 tons. During FY 2016-17, a total of 134 tons of emissions were reduced in the SCAB by projects funded with AB 2766 Subvention money and the dramatic change in emissions reduced compared to the prior fiscal year is largely attributable to a change in CARB methodology for signal synchronization projects explained in the Table 8 section below.

Table 7
AB 2766 Project Spending and Emissions Reduced

County	Number of Projects Funded	Project Spending	Emissions Reduced ² (Tons/Year)
Los Angeles	175	\$10,110,095	73
Orange	90	\$3,412,138	32
Riverside	59	\$2,391,932	24
San Bernardino	35	\$1,741,348	5
Totals*	359	\$17,655,513	134

* Totals may vary due to rounding.

Table 8 provides emission reduction and cost-effectiveness information for AB 2766 project categories. In this reporting cycle, the Transportation Demand Management project category represents the majority of emissions reduced. This category includes trip reduction subsidies for employees of reporting jurisdictions that receive AB 2766 funds, as well as subsidies for residents who meet their city program requirements, and accounts for 57% of all emissions reduced in this reporting cycle. Noteworthy of mention is the 97% decrease in tons per year of pollutants reduced by subvention fund projects (from 6,190 in the previous cycle to 134 in the current). This anomaly is mostly attributable to the change in emission reduction calculation methodology for a Traffic Management project described below. To a lesser extent, the decrease is also attributable to this project cycle's reported decline in overall project spending and the steady decrease in emissions from vehicle fleets in the State of California.

In 2018, District staff reevaluated the longstanding emission reduction calculation methodology previously approved by CARB for calculating emission reductions from the Automatic Traffic Surveillance and Control (ATSAC) project implemented by the City of Los Angeles. The ATSAC Project is a complex signal synchronization system in place throughout the city that automatically responds to changing traffic conditions and improves traffic flow. To more accurately measure the estimated emission reductions from ATSAC system operations, the city of Los Angeles and District

² Emissions reduced account for total reductions (VOC, NOx, PM_{2.5} and CO/7) from Air Fund expenditures. Air Funds consist of the Motor Vehicle Fees and funding from both the state Carl Moyer Program and the AB 2766 Discretionary Fund. See Attachment B: Average Cost-Effectiveness by Project.

staff collaborated to develop a new approach that minimizes assumptions and utilizes current data that better reflects vehicle emissions and traffic conditions in Los Angeles. It also reflects the emission reductions achieved by the fleet of cleaner vehicles in use in the South Coast Air Basin. The updated methodology more accurately reflects ATSAC's emission reductions. In this project cycle, use of the new methodology reflects a decline in reductions and cost-effectiveness. Again, District staff believes that the updated methodology better reflects real-time traffic conditions and will better guide policy and project decision-making in future fiscal years.

The cost-effectiveness of all project categories, as shown in Table 8, range from \$8.41 - \$204.91 per pound of emissions reduced. The overall total average cost-effectiveness was computed as \$25.37 per pound of emissions reduced. The decrease in cost-effectiveness per pound is primarily attributable to the change in signal synchronization emissions calculation methodology approved for the City of Los Angeles ATSAC project. A number of factors, such as funding amount, project life, project design, as well as reductions in trips and vehicle miles, impact how cost-effective one project is compared to another and determines the final project category cost-effectiveness as shown in this table. For example, in addition to ASTAC methodology changes, cleaner vehicle purchases were made by recipient jurisdictions at the end of the fiscal year, reporting low mileage but full vehicle purchase costs, skewing cost-effectiveness.

AB 2766 staff are continuing to provide technical support and program outreach, helping recipient jurisdictions to implement cost-effective and quantifiable emission reduction projects that meet immediate agency needs, while working toward achievement of longer-term AQMP objectives. Local governments are also encouraged to seek and create opportunities to coordinate with neighboring cities, jurisdictions, and COGs to implement projects that will result in shared, mutual emission reduction benefits, while potentially pooling costs and resources. Pre-designation of funds for future project implementation is helping Program Administrators better understand the importance of long-term project planning.

The last column in Table 8 identifies the total Air Funds cost-effectiveness (dollar per pound) of emissions reduced. The "Air Funds" consist of the Motor Vehicle Fees and, if applicable, funding from the state Carl Moyer Fund Program and the Mobile Source Air Pollution Reduction Review Committee (MSRC) funding pursuant to CARB's methodology.

Table 8
Emissions Reduced and Cost-Effectiveness by Project Category

Project Category	Number of Projects	Number of Projects Quantified	Percent of Projects Quantified	Emissions Reduced³ (lbs. /yr.)	Emissions Reduced⁴ (tons/yr.)	Air Funds Cost-Effectiveness⁵ (\$/lb.)
Transportation Demand Management	65	60	92%	151,018	76	\$23.21
Traffic Management	52	22	42%	37,975	19	\$8.41
Miscellaneous Projects⁶	42	10	24%	25,251	13	\$23.01
Alternative Fuels/Electric Vehicles	99	68	69%	20,351	10	\$34.54
Public Transportation	30	26	87%	17,974	9	\$51.08
PM Reduction Strategies	19	18	95%	14,604	7	\$43.56
Bicycles	25	14	56%	620	-0-	\$204.91
Vehicle Emission Abatement	2	2	100%	22	-0-	\$185.56
Land Use	16	-0-	0%	-0-	-0-	\$0
Public Education	9	-0-	0%	-0-	-0-	\$0
TOTALS*	359	220	61%	267,815	134	\$25.37

*Totals may vary due to rounding.

The history of the AB 2766 Program's emission reductions and cost-effectiveness is shown in Table 9. The 134 tons of emission reductions achieved during this reporting cycle represents a major decrease from the 6,190 tons reduced during FY 2015-16, as described in the prior narrative. The average cost-effectiveness of projects funded during FY 2016-17 was approximately \$25.37 per pound of emissions reduced. The average cost-effectiveness figure is determined by dividing the Amortized Air Fund dollar amount (\$6.9 million), which is associated with quantified projects, by the total amount of emission reductions (268,815 lbs./yr.). Table 9 illustrates the progress that has been made since FY 2012-13 in reducing mobile source emissions. Emissions calculations are based on the most recently approved emission factors. As vehicles become cleaner and emission factors decrease from year to year, more cost-effective projects are required to maintain the same level of emission reductions.

3 Emissions reduced account for total reductions (VOC, NOx, PM_{2.5} and CO/7) from the state Carl Moyer Program and the AB 2766 Discretionary Fund. See Attachment B: Average Cost-Effectiveness by Project.

4 Emissions reduced (tons/year) is determined by dividing by 2,000 lbs. Totals may vary slightly due to rounding.

5 Cost-effectiveness is determined by multiplying default capital recovery factors (amortized formula reflecting project life and discount rate) by total funds, then dividing those annualized funds by annual emission reductions. See Attachment B: Average Cost-Effectiveness by Project.

6 The "Miscellaneous Project" category represents quantified and non-quantified projects that were not classified under the major program categories (i.e., payment of funds to Council of Governments to support and finance inter-jurisdictional air quality projects that aim to reduce emissions from motor vehicles, as summarized in Table 1). It also provides local jurisdictions the opportunity to utilize a CARB approved emission reduction calculation by using specific local inputs.

Table 9
History of Emissions Reduced and Cost-Effectiveness

Fiscal Year	Emissions Reduced* (lbs./yr.)	Emissions Reduced* (tons/yr.)	Cost-Effectiveness** (\$/lb.)	Cost-Effectiveness** (\$/ton)
FY 2012-13	11,901,177	5,961	\$0.75	\$1,531
FY 2013-14	10,926,821	5,463	\$0.85	\$1,748
FY 2014-15	12,396,710	6,198	\$0.66	\$1,352
FY 2015-16	12,380,133	6,190	\$0.76	\$1,524
FY 2016-17	267,815	134	\$25.37	\$51,580

*Emission reductions determined by the EMFAC emissions model in effect for the year specified.

**In current 2017 dollars.

Table 10 shows the project subcategories with the highest Motor Vehicle Fee funding allocations within each project category. Each project category is comprised of subcategories for the purpose of emission reduction quantification. Historically and for this reporting cycle, the two project subcategories with the highest expenditures have been Alternative Fuel Vehicle Purchases and Employer Based Trip Reductions. Combined, the total expenditures for these top two subcategories is approximately \$7 million. This amount represents 39.42% of the \$17.7 million MV fees spent on mobile source projects during FY 2016-17.

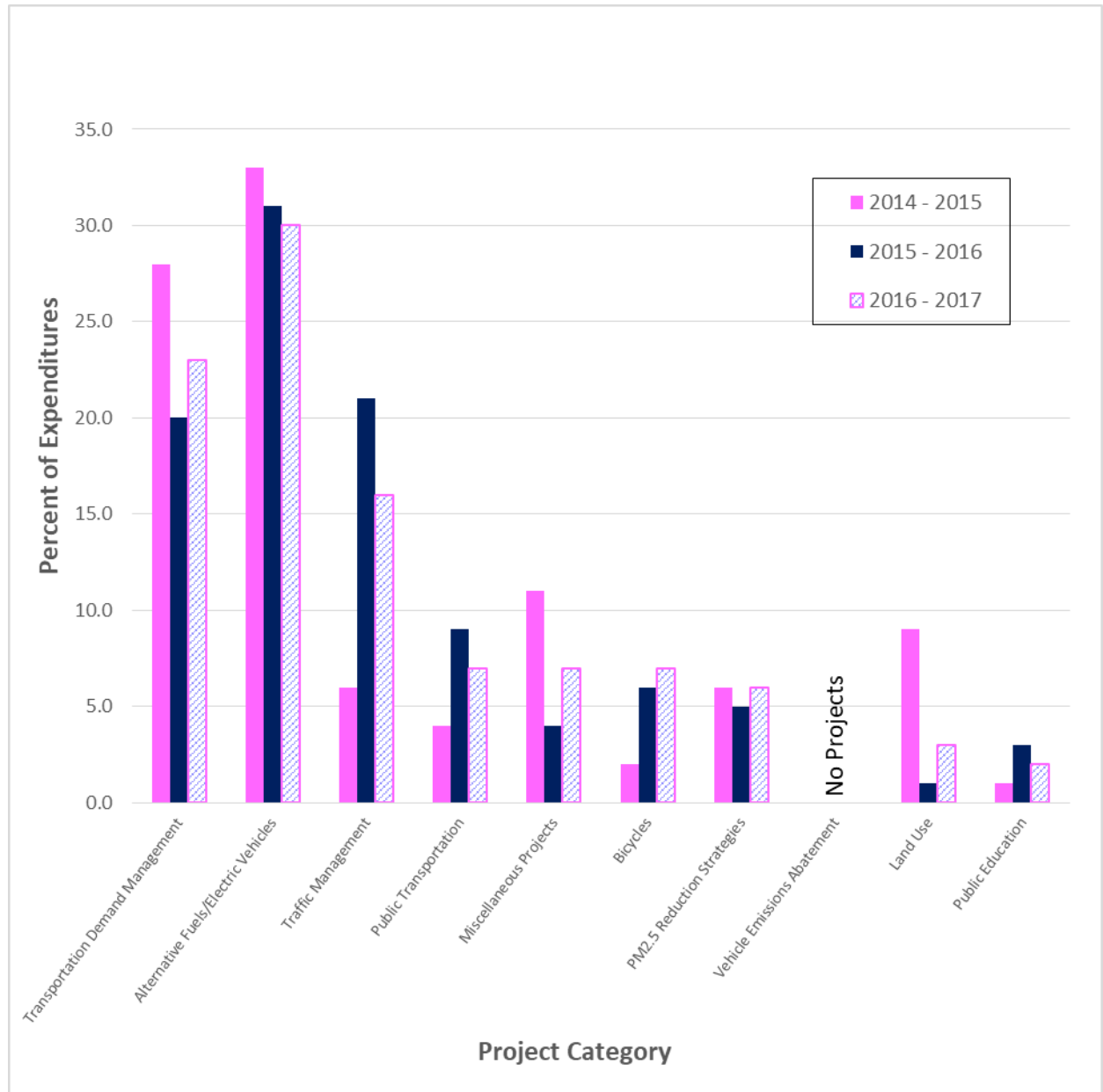
Table 10
Project Subcategories with Highest Funding Allocations

Project Category (# of Projects)	Project Subcategory (# of Projects)	Project Subcategory Expenditures	Percent of Project Category Expenditures*
Alternative Fuels/Electric Vehicles (99)	Alternative Fuel Vehicle Purchases (48)	\$3,132,901	60%
Transportation Demand Management (65)	Employer Based Trip Reduction (51)	\$2,907,404	73%
Traffic Management (52)	Traffic Flow or Signalization (42)	\$1,993,322	71%
Misc. Projects (41)	Misc. Projects (41)	\$1,264,304	100%
PM Reduction Strategies (19)	Road Dust Control (19)	\$1,001,014	100%
Bicycles (35)	Bicycle Lanes & Trails (12)	\$992,577	80%
Public Transportation (30)	Transit Operations (11)	\$483,104	39%
Land Use (16)	Plan Elements (12)	\$408,172	77%
Public Education (9)	Short Term PE (promote transit, rideshare) (8)	\$303,567	99%
Vehicle Emissions Abatement (2)	On-road CARB-verified Diesel Emission Control Systems (2)	\$35,292	100%

*Project Category Expenditures shown in Table 6.

Figure 1 depicts a comparison, by percentage, of the expenditures made in all project categories during FYs 2014-15, 2015-16 and 2016-17.

Figure 1
Project Expenditure Comparisons



V. PROGRAM OUTREACH

The following information summarizes future program outreach goals to be accomplished by SCAQMD staff:

Local Government Leadership

- Continue to provide written and electronic notification of fund balances and fund match/leverage opportunities to local government officials and staff.
- Encourage local government policy makers to provide leadership and establish partnerships in the program decision-making process.
- Work directly with cities to implement quantifiable, cost-effective mobile source emission reduction projects. Staff will meet with and maintain an open, ongoing dialogue with city mayors, city managers, and other local government staff, and will support their efforts to educate their elected officials on the value of the subvention fund program.
- Collaborate with District LPAM and MSRC staff to coordinate outreach activities, align project and policy goals, and maximize fund matching and leveraging opportunities for local governments.

Councils of Government

- Coordinate with COG staff to ensure accurate program reporting on project activities funded with AB 2766 funds received from their member cities and counties. Emphasis will continue to be placed on the importance of ensuring that projects funded by COGs adhere to the AB 2766 guidelines and criteria established by CARB.
- Respond to feedback from local governments and their respective COGs on various AB 2766 program matters, including the annual reporting process, and the use of subvention funds allocated towards COG sponsored projects.
- Host specialized training sessions for COG staff and member jurisdictions on project coordination and annual reporting requirements.

Local Government Staff

- Develop new resources or enhance existing program tools that will assist local governments with identifying, monitoring and reporting eligible AB 2766 projects and programs, such as:
 - 1) Updating the Resource Guide
 - 2) Updating Access File Instructions
 - 3) Enhancing Marketing Materials (pamphlets, fact sheets, etc.)
- Encourage fund leveraging and pre-designation of funds for future quantifiable project implementation

- Act as an intermediary between District and city staffs, COG representatives and local government leadership to streamline project and policy development.
- Maintain an outreach presence through meetings with local governments' AB 2766 administrators as a means to:
 - 1) Provide technical guidance on program changes, modifications and/or enhancements;
 - 2) Provide information regarding legal constraints of AB 2766 spending;
 - 3) Provide technical hands-on assistance with calculating, tracking and reporting on projects that will yield quantifiable emission reductions;
 - 4) Provide a list of eligible, preferred projects;
 - 5) Explain and discuss the importance of pre-designating funds;
 - 6) Provide training on the automated reporting and submittal processes; and
 - 7) Respond to general questions about the AB 2766 Program.
- Encourage all AB 2766 administrators to attend the annual AB 2766 training sessions to learn about AB 2766 software submittal procedures, as well as updates, changes and/or modifications to the AB 2766 Program.

CARB Collaboration

- Manage and update the existing Microsoft Access reporting file annually, as necessary, for the purpose of South Coast Air District fund recipients' reporting of their fund expenditures, project implementation, emissions reductions, cost effectiveness, and other relevant data;
- Coordinate with CARB to efficiently organize and transmit the annual reporting file in a manner that meets statutory requirements and provides reporting jurisdictions with reliability and continuity of file submittal;
- Continue to collaborate with CARB to effectively communicate program and financial reports and receive updated emission factors and program direction.

ATTACHMENT A
Eligible Cities and Counties (FY 2016-17)

Eligible Cities and Counties (FY 2016-17)

Los Angeles County	Los Angeles County (cont'd)	Orange County	Riverside County	San Bernardino County
Agoura Hills	La Verne	Aliso Viejo	Banning	Big Bear Lake
Alhambra	Lakewood	Anaheim	Beaumont	Chino
Arcadia	Long Beach	Brea	Calimesa	Chino Hills
Artesia	Lomita	Buena Park	Canyon Lake	Colton
Azusa	City of Los Angeles	Costa Mesa	Cathedral City	Fontana
Baldwin Park	Lynwood	Cypress	Coachella	Grand Terrace
Bell	Malibu	Dana Point	Corona	Highland
Bell Gardens	Manhattan Beach	Fountain Valley	Desert Hot Springs	Loma Linda
Bellflower	Maywood	Fullerton	Eastvale	Montclair
Beverly Hills	Monrovia	Garden Grove	Hemet	Ontario
Burbank	Montebello	Huntington Beach	Indian Wells	Rancho Cucamonga
Carson	Monterey Park	Irvine	Indio	Redlands
Calabasas	Norwalk	La Habra	Jurupa Valley	Rialto
Cerritos	Palos Verdes	La Palma	Lake Elsinore	San Bernardino
Claremont	Paramount	Laguna Beach	La Quinta	City of San Bernardino
Commerce	Pasadena	Laguna Hills	Menifee	Upland
Compton	Pico Rivera	Laguna Niguel	Moreno Valley	Yucaipa
Covina	Pomona	Laguna Woods	Murrieta	
Cudahy	Rancho Palos Verdes	Lake Forest	Norco	
Culver City	Redondo Beach	Los Alamitos	Palm Desert	
Diamond Bar	Rolling Hills Estates	Mission Viejo	Palm Springs	
Downey	Rosemead	Newport Beach	Perris	
Duarte	San Dimas	Orange	Rancho Mirage	
El Monte	San Fernando	County of Orange	Riverside	
El Segundo	San Gabriel	Placentia	County of Riverside	
Gardena	San Marino	Rancho Santa Margarita	San Jacinto	
Glendale	Santa Clarita	San Clemente	Temecula	
Glendora	Santa Monica	San Juan Capistrano	Wildomar	
Hawaiian Gardens	Santa Fe Springs	Santa Ana		
Hawthorne	Sierra Madre	Seal Beach		
Hermosa Beach	Signal Hill	Stanton		
Hidden Hills	South El Monte	Tustin		
Huntington Park	South Gate	Villa Park		
Inglewood	South Pasadena	Westminster		
Irwindale	Torrance	Yorba Linda		
La Canada Flintridge	Temple City			
La Habra Heights	Walnut			
La Mirada	West Covina			
La Puente	West Hollywood			
Los Angeles County	Westlake Village			
Lawndale	Whittier			
Total Eligible Governments = 162	Los Angeles = 82	Orange = 35	Riverside = 28	San Bernardino = 17

ATTACHMENT B

FY 2016-17 AB 2766 Subvention Fund Program Reports

South Coast Cities and Counties Financial Summary of Motor Vehicle Funds

Fiscal Year 2016 - 2017

								Funds	
County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
Los Angeles Co									
	Agoura Hills	\$26,625	\$27,086	\$196	\$53,907	\$4,415	\$0	\$49,492	\$40,000
	Alhambra	\$258,968	\$110,898	\$2,952	\$372,818	\$68,514	\$4,737	\$299,567	\$225,000
	Arcadia	\$206,116	\$72,853	\$329	\$279,298	\$148,735	\$0	\$130,563	\$100,000
	Artesia	\$39,978	\$21,560	\$555	\$62,092	\$17,397	\$0	\$44,695	\$44,695
	Azusa	\$144,433	\$93,192	\$856	\$238,481	\$87,298	\$0	\$151,183	\$113,000
	Baldwin Park	\$606,771	\$95,440	\$1,401	\$703,612	\$129,823	\$2,500	\$571,289	\$376,000
	Bell	\$80,170	\$46,886	\$293	\$127,349	\$0	\$0	\$127,349	\$101,793
	Bell Gardens	\$182,348	\$69,145	\$1,042	\$252,535	\$22,617	\$0	\$229,918	\$223,000
	Bellflower	\$208,819	\$97,515	\$2,499	\$308,833	\$0	\$0	\$308,833	\$299,598
	Beverly Hills	\$385,359	\$44,392	\$3,996	\$433,747	\$12,490	\$0	\$421,257	\$421,257
	Burbank	\$271,857	\$134,784	\$293	\$406,934	\$64,448	\$0	\$342,486	\$321,198
	Calabasas	\$97,195	\$26,177	\$527	\$123,899	\$26,177	\$0	\$97,722	\$97,195
	Carson	\$267,339	\$121,018	\$6,908	\$395,265	\$29,015	\$3,000	\$363,250	\$325,000
	Cerritos	\$422,540	\$65,045	\$4,423	\$492,008	\$24,128	\$4,065	\$463,816	\$463,815
	Claremont	\$106,782	\$46,250	\$1,042	\$154,074	\$3,610	\$0	\$150,464	\$103,000
	Commerce	\$0	\$16,763	\$69	\$16,832	\$16,763	\$0	\$69	\$0
	Compton	\$319,834	\$133,978	\$0	\$453,812	\$66,656	\$8,374	\$378,782	\$300,000
	County of LA	\$2,825,474	\$1,619,606	\$30,126	\$4,475,206	\$680,485	\$0	\$3,794,721	\$3,750,000
	Covina	\$109,153	\$62,944	\$1,020	\$173,117	\$1,046	\$2,270	\$169,801	\$169,801
	Cudahy	\$48,273	\$39,720	\$337	\$88,330	\$16,550	\$680	\$71,100	\$71,100
	Culver City	\$248,036	\$51,652	\$430	\$300,118	\$110,000	\$0	\$190,118	\$150,000
	Diamond Bar	\$267,984	\$72,892	\$2,891	\$343,767	\$159,694	\$0	\$184,074	\$184,000
	Downey	\$577,635	\$145,809	\$1,580	\$725,024	\$286,741	\$6,800	\$431,483	\$350,000
	Duarte	\$60,213	\$28,708	\$389	\$89,310	\$0	\$0	\$89,310	\$35,000
	El Monte	\$81,883	\$145,431	\$477	\$227,791	\$91,718	\$0	\$136,073	\$136,073
	El Segundo	\$36,220	\$35,925	\$295	\$72,440	\$0	\$0	\$72,440	\$72,440
	Gardena	\$231,962	\$77,622	\$2,142	\$311,727	\$69,060	\$3,500	\$239,167	\$225,000
	Glendale	\$438,676	\$257,529	\$2,196	\$698,401	\$187,228	\$0	\$511,173	\$350,000

County	Local Name								Funds
		Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
	Glendora	\$50,040	\$66,866	\$239	\$117,145	\$14,411	\$4,200	\$98,534	\$75,000
	Hawaiian Gardens	\$148,891	\$19,071	\$469	\$168,431	\$6,500	\$0	\$161,931	\$161,931
	Hawthorne	\$215,938	\$112,379	\$403	\$328,720	\$102,630	\$1,346	\$224,744	\$224,744
	Hermosa Beach	\$59,960	\$25,286	(\$73)	\$85,172	\$6,525	\$0	\$78,647	\$78,647
	Hidden Hills	\$50,999	\$2,433	\$705	\$54,137	\$0	\$0	\$54,137	\$42,500
	Huntington Park	\$449,440	\$76,260	\$2,158	\$527,858	\$379,554	\$40	\$148,264	\$105,800
	Inglewood	\$199,346	\$148,959	\$2,144	\$350,449	\$12,209	\$6,000	\$332,240	\$332,240
	Irwindale	\$1,839	\$1,807	\$0	\$3,646	\$3,523	\$0	\$123	\$0
	La Canada Flintridge	\$226,275	\$26,250	\$3,400	\$255,925	\$38,782	\$0	\$217,143	\$138,800
	La Habra Heights	\$5,662	\$10,118	\$33	\$15,813	\$0	\$0	\$15,813	\$0
	La Mirada	\$408,487	\$63,389	\$3,357	\$475,233	\$144,889	\$0	\$330,344	\$250,000
	La Puente	\$155,881	\$51,745	\$1,938	\$209,564	\$53,221	\$0	\$156,343	\$117,000
	La Verne	\$440,804	\$42,396	\$2,992	\$486,192	\$77,205	\$1,827	\$407,160	\$407,160
	Lakewood	\$172,427	\$100,207	\$8,241	\$280,875	\$31,989	\$0	\$248,886	\$248,886
	Lawndale	\$75,273	\$42,774	\$352	\$118,399	\$30,000	\$0	\$88,399	\$85,000
	Lomita	\$67,092	\$26,281	\$188	\$93,561	\$40,877	\$0	\$52,684	\$52,684
	Long Beach	\$3,856,445	\$623,623	\$27,098	\$4,507,166	\$713,000	\$30,000	\$3,764,166	\$3,000,000
	Los Angeles (City)	\$4,637,292	\$5,147,445	\$56,789	\$9,841,526	\$3,931,068	\$94,048	\$5,816,410	\$5,700,414
	Lynwood	\$316,230	\$69,055	\$1,237	\$386,522	\$200,229	\$0	\$186,293	\$147,779
	Malibu	\$44,505	\$16,225	\$365	\$61,095	\$0	\$0	\$61,095	\$61,095
	Manhattan Beach	\$72,841	\$67,559	(\$258)	\$140,142	\$11,880	\$2,100	\$126,162	\$110,000
	Maywood	\$148,350	\$37,303	\$0	\$185,653	\$131,246	\$0	\$54,406	\$54,406
	Monrovia	\$341,307	\$47,927	\$3,620	\$392,854	\$13,332	\$2,875	\$376,647	\$255,981
	Montebello	\$489,590	\$81,631	\$3,707	\$574,928	\$30,446	\$0	\$544,482	\$500,000
	Monterey Park	\$234,417	\$79,659	\$1,781	\$315,857	\$96,200	\$0	\$219,657	\$184,700
	Norwalk	\$82,840	\$134,457	\$118	\$217,415	\$116,228	\$0	\$101,187	\$87,564
	Palos Verdes Estates	\$92,428	\$17,757	\$988	\$111,173	\$0	\$0	\$111,173	\$111,000
	Paramount	\$197,957	\$72,023	\$1,370	\$271,350	\$0	\$3,600	\$267,750	\$267,750
	Pasadena	\$99,802	\$180,086	\$1,241	\$281,128	\$151,630	\$0	\$129,498	\$99,802
	Pico Rivera	\$280,577	\$82,075	\$4,179	\$366,831	\$26,010	\$4,000	\$336,821	\$226,600
	Pomona	\$660,869	\$198,706	\$4,674	\$864,249	\$77,730	\$10,586	\$775,933	\$582,000

County	Local Name								Funds
		Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
	Rancho Palos Verdes	\$84,315	\$54,963	\$613	\$139,891	\$77,671	\$0	\$62,220	\$50,000
	Redondo Beach	\$163,839	\$88,743	\$441	\$253,023	\$59,854	\$4,243	\$188,926	\$163,839
	Rolling Hills Estates	\$64,186	\$10,252	\$283	\$74,721	\$0	\$0	\$74,721	\$74,721
	Rosemead	\$143,767	\$71,163	\$149	\$215,079	\$0	\$0	\$215,079	\$215,080
	San Dimas	\$163,957	\$43,602	\$1,310	\$208,869	\$0	\$2,180	\$206,689	\$154,000
	San Fernando	\$195,651	\$31,329	\$264	\$227,243	\$96,170	\$0	\$131,073	\$131,073
	San Gabriel	\$111,674	\$52,621	\$1,127	\$165,422	\$0	\$0	\$165,422	\$152,784
	San Marino	\$39,918	\$17,324	\$204	\$57,446	\$0	\$0	\$57,446	\$57,446
	Santa Clarita	\$717,331	\$280,442	\$2,994	\$1,000,767	\$407,658	\$3,902	\$589,207	\$589,207
	Santa Fe Springs	\$82,881	\$23,572	\$807	\$107,260	\$0	\$0	\$107,260	\$107,260
	Santa Monica	\$684,215	\$119,577	\$6,151	\$809,943	\$142,330	\$7,010	\$660,603	\$581,000
	Sierra Madre	\$108,131	\$14,064	\$593	\$122,788	\$0	\$0	\$122,788	\$95,200
	Signal Hill	\$154,101	\$14,906	\$570	\$169,578	\$1,000	\$0	\$168,578	\$130,000
	South El Monte	\$96,533	\$26,579	\$152	\$123,264	\$88,864	\$0	\$34,400	\$20,000
	South Gate	\$377,468	\$151,765	\$444	\$529,677	\$32,205	\$6,000	\$491,472	\$451,911
	South Pasadena	\$139,972	\$32,726	\$1,945	\$174,642	\$40,231	\$0	\$134,411	\$105,000
	Temple City	\$169,424	\$46,654	\$380	\$216,458	\$20,020	\$0	\$196,438	\$145,000
	Torrance	\$266,901	\$189,515	\$2,899	\$459,315	\$152,579	\$0	\$306,736	\$266,901
	Walnut	\$29,596	\$38,504	(\$12)	\$68,087	\$58,953	\$0	\$9,134	\$9,134
	West Covina	\$605,385	\$137,753	\$3,721	\$746,860	\$77,112	\$5,301	\$664,447	\$477,548
	West Hollywood	\$138,025	\$46,470	\$493	\$184,988	\$51,309	\$0	\$133,679	\$100,000
	Westlake Village	\$84,599	\$10,706	\$523	\$95,828	\$2,469	\$0	\$93,359	\$84,500
	Whittier	\$657,053	\$112,811	\$6,724	\$776,588	\$35,749	\$5,222	\$735,617	\$735,617
	County Total:	\$28,113,369	\$13,048,612	\$235,493	\$41,397,475	\$10,110,095	\$230,406	\$31,056,974	\$27,654,669

		Funds							
County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
Orange Co.									
	Aliso Viejo	\$845,252	\$98,214	\$5,086	\$948,552	\$108,822	\$0	\$839,730	\$650,000
	Anaheim	\$102,379	\$457,338	\$338	\$560,055	\$490,192	\$3,424	\$66,438	\$60,000
	Brea	\$217,815	\$55,817	(\$445)	\$273,187	\$38,562	\$0	\$234,625	\$217,815
	Buena Park	\$389,360	\$106,434	\$2,622	\$498,416	\$791	\$0	\$497,625	\$377,000
	Costa Mesa	\$151,386	\$146,347	\$1,725	\$299,458	\$34,561	\$555	\$264,341	\$264,341
	County of Orange	\$830,357	\$165,678	\$9,906	\$1,005,941	\$420,002	\$3,034	\$582,905	\$460,000
	Cypress	\$456,695	\$63,522	\$3,792	\$524,009	\$0	\$0	\$524,009	\$456,695
	Dana Point	\$359,353	\$42,671	\$3,595	\$405,619	\$0	\$0	\$405,619	\$344,818
	Fountain Valley	\$453,676	\$74,663	\$3,041	\$531,380	\$69,150	\$2,212	\$460,018	\$388,700
	Fullerton	\$359,359	\$211,917	\$178	\$571,454	\$88,423	\$3,748	\$479,283	\$473,161
	Garden Grove	\$378,691	\$226,415	\$2,074	\$607,180	\$171,541	\$7,613	\$428,026	\$321,000
	Huntington Beach	\$815,585	\$249,840	\$2,771	\$1,068,196	\$55,446	\$526	\$1,012,224	\$800,000
	Irvine	\$885,324	\$329,958	\$8	\$1,215,290	\$580,272	\$7,112	\$627,906	\$627,906
	La Habra	\$53,164	\$79,255	\$29	\$134,789	\$89,452	\$0	\$42,996	\$40,000
	La Palma	\$92,888	\$20,505	\$286	\$113,679	\$0	\$0	\$113,679	\$92,888
	Laguna Beach	\$8,304	\$30,159	\$213	\$38,676	\$28,510	\$0	\$10,166	\$0
	Laguna Hills	\$70,442	\$39,180	\$678	\$110,300	\$0	\$0	\$110,300	\$70,747
	Laguna Niguel	\$400,600	\$84,463	\$1,404	\$486,467	\$17,171	\$0	\$469,296	\$469,296
	Laguna Woods	\$114,524	\$20,704	\$824	\$136,052	\$0	\$0	\$136,052	\$62,500
	Lake Forest	\$454,230	\$107,153	\$3,774	\$565,157	\$67,477	\$0	\$497,680	\$416,480
	Los Alamitos	\$50,926	\$14,989	\$480	\$66,396	\$0	\$0	\$66,396	\$66,395
	Mission Viejo	\$272,519	\$127,165	\$2,358	\$402,042	\$146,515	\$6,988	\$248,539	\$240,000
	Newport Beach	\$986,409	\$110,109	\$2,292	\$1,098,810	\$45,639	\$0	\$1,053,171	\$250,400
	Orange (City)	\$159,035	\$180,593	\$375	\$340,003	\$136,833	\$5,329	\$197,841	\$144,000
	Placentia	\$203,946	\$66,739	\$1,502	\$272,187	\$54,371	\$0	\$217,816	\$217,817
	Rancho Santa Margarita	\$132,503	\$61,955	\$1,035	\$195,493	\$25,444	\$0	\$170,049	\$147,000
	San Clemente	\$440,635	\$84,595	(\$113)	\$525,117	\$232,918	\$0	\$292,199	\$292,198
	San Juan Capistrano	\$454,734	\$46,080	\$966	\$501,781	\$66,888	\$0	\$434,893	\$326,000
	Santa Ana	\$1,037,582	\$552,628	\$8,353	\$1,598,563	\$186,676	\$6,287	\$1,405,600	\$1,037,582
	Seal Beach	\$0	\$32,585	\$31	\$32,616	\$32,585	\$0	\$31	\$0

County	Local Name							Funds	
		Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
	Stanton	\$166,123	\$50,762	\$940	\$217,825	\$77,438	\$2,100	\$138,287	\$110,000
	Tustin	\$297,537	\$105,629	\$647	\$403,813	\$0	\$172	\$403,641	\$403,641
	Villa Park	\$34,094	\$7,351	\$133	\$41,578	\$0	\$441	\$41,137	\$39,499
	Westminster	\$480,057	\$120,131	\$3,091	\$603,279	\$127,318	\$7,508	\$468,453	\$394,000
	Yorba Linda	\$923,467	\$86,372	\$6,587	\$1,016,426	\$19,141	\$0	\$997,285	\$748,000
	County Total:	\$13,078,952	\$4,257,916	\$70,577	\$17,407,444	\$3,412,138	\$57,050	\$13,938,257	\$11,009,879
Riverside Co.									
	Banning	\$45,340	\$39,374	\$42	\$84,756	\$0	\$0	\$84,756	\$80,000
	Beaumont	\$228,694	\$57,615	\$19,488	\$3	\$0	\$900	\$304,897	\$250,000
	Calimesa	\$48,520	\$10,585	\$253	\$59,358	\$21,550	\$555	\$37,253	\$37,253
	Canyon Lake	\$100,644	\$13,640	\$273	\$114,557	\$0	\$0	\$114,557	\$114,011
	Cathedral City	\$65,339	\$67,213	\$2,226	\$134,778	\$51,968	\$0	\$82,809	\$82,809
	Coachella	\$26,102	\$68,360	\$2,690	\$97,152	\$79,377	\$0	\$17,775	\$17,775
	Corona	\$765,431	\$210,269	\$5,075	\$980,775	\$29,345	\$985	\$950,445	\$750,000
	County of Riverside	\$157,970	\$479,531	\$682	\$638,183	\$557,689	\$0	\$80,493	\$75,000
	Desert Hot Springs	\$20,473	\$37,094	\$0	\$57,567	\$27,821	\$0	\$29,747	\$10,000
	Eastvale	\$144,364	\$80,658	\$1,404	\$226,425	\$8,317	\$5,041	\$213,067	\$170,000
	Hemet	\$355,396	\$130,391	\$8,341	\$494,128	\$69,442	\$5,000	\$419,686	\$355,396
	Indian Wells	\$5,515	\$5,342	\$33	\$10,890	\$4,932	\$0	\$5,958	\$5,000
	Indio	\$120,787	\$112,450	\$842	\$234,079	\$87,125	\$0	\$146,954	\$115,000
	Jurupa Valley	\$53,689	\$125,372	\$223	\$179,284	\$121,577	\$0	\$57,707	\$57,707
	La Quinta	\$166,245	\$51,050	\$824	\$218,119	\$38,288	\$0	\$179,831	\$166,245
	Lake Elsinore	\$244,245	\$77,904	\$444	\$322,593	\$92,052	\$3,895	\$226,646	\$226,646
	Menifee	\$226,942	\$113,658	\$557	\$341,157	\$113,658	\$0	\$227,500	\$223,111
	Moreno Valley	\$146,958	\$262,273	\$1,752	\$410,983	\$180,642	\$9,103	\$221,238	\$175,000
	Murrieta	\$378,978	\$145,316	\$3,944	\$528,237	\$13,917	\$0	\$514,320	\$255,000
	Norco	\$127,165	\$34,346	\$610	\$162,121	\$49,907	\$1,500	\$110,714	\$101,000
	Palm Desert	\$103,940	\$63,001	\$603	\$167,544	\$53,306	\$0	\$114,238	\$59,511
	Palm Springs	\$17,406	\$59,577	\$814	\$77,797	\$44,683	\$3,724	\$29,390	\$23,000

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
	Perris	\$297,810	\$94,143	\$108	\$392,061	\$110,308	\$0	\$281,752	\$0
	Rancho Mirage	\$54,011	\$23,075	\$14	\$77,100	\$17,306	\$0	\$59,794	\$59,794
	Riverside (City)	\$840,662	\$422,378	\$2,344	\$1,265,384	\$243,105	\$3,767	\$1,018,512	\$900,264
	San Jacinto	\$242,834	\$60,856	\$1,868	\$305,558	\$114,050	\$1,176	\$190,332	\$150,000
	Temecula	\$257,168	\$139,274	\$1,292	\$397,734	\$261,567	\$0	\$136,167	\$136,167
	Wildomar	\$45,171	\$54,561	\$152	\$99,884	\$0	\$2,913	\$96,971	\$96,971
	County Total:	\$5,287,799	\$3,039,305	\$56,898	\$8,384,002	\$2,391,932	\$38,559	\$5,953,510	\$4,692,660
San Bernardino Co.									
	Big Bear Lake	\$47,863	\$8,031	\$286	\$56,180	\$0	\$0	\$56,180	\$56,180
	Chino	\$523,575	\$109,737	\$4,593	\$637,905	\$6,074	\$0	\$631,831	\$550,000
	Chino Hills	\$318,094	\$100,712	\$227	\$419,033	\$10,180	\$577	\$408,276	\$395,700
	Colton	\$225,667	\$61,899	\$879	\$288,445	\$41,986	\$0	\$246,459	\$225,667
	County of San Bernardino	\$219,716	\$310,282	\$5,180	\$535,179	\$221,048	\$19,393	\$294,738	\$294,738
	Fontana	\$873,783	\$268,035	\$4,212	\$1,146,030	\$313,914	\$12,500	\$819,616	\$616,839
	Grand Terrace	\$63,405	\$15,726	\$394	\$79,525	\$5,000	\$0	\$74,525	\$50,000
	Highland	\$570,446	\$68,504	\$3,451	\$642,401	\$330,643	\$3,425	\$308,333	\$308,333
	Loma Linda	\$63,454	\$31,474	\$407	\$95,335	\$46,310	\$1,574	\$47,451	\$47,400
	Montclair	\$181,135	\$49,402	\$436	\$230,973	\$25,776	\$0	\$205,197	\$200,000
	Ontario	\$1,056,948	\$216,922	\$5,071	\$1,278,941	\$178,480	\$13,558	\$1,086,904	\$1,056,948
	Rancho Cucamonga	\$879,115	\$313,349	\$3,102	\$1,195,566	\$38,376	\$1,910	\$1,155,280	\$1,125,280
	Redlands	\$471,896	\$87,306	\$1,611	\$560,812	\$140,000	\$0	\$420,813	\$229,950
	Rialto	\$283,345	\$137,060	\$3,718	\$424,123	\$82,318	\$6,190	\$335,615	\$283,345
	San Bernardino (City)	\$218,122	\$276,065	\$6,164	\$500,351	\$21,876	\$17,254	\$461,221	\$276,065
	Upland	\$130,523	\$96,763	\$778	\$228,064	\$94,734	\$4,838	\$128,491	\$96,763
	Yucaipa	\$116,113	\$68,679	\$0	\$184,792	\$184,633	\$0	\$159	\$100,000
	County Total:	\$6,243,199	\$2,219,946	\$40,509	\$8,503,655	\$1,741,348	\$81,219	\$6,681,087	\$5,913,208
	GRAND	\$52,723,319	\$22,565,779	\$403,477	\$75,692,575	\$17,655,513	\$407,234	\$57,629,828	\$49,270,416

Number of Local Governments: 162

Local Government Administrative Costs

Fiscal Year 2016 - 2017

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Agoura Hills	\$0	\$27,086	0%
Alhambra	\$4,737	\$110,898	4%
Aliso Viejo	\$0	\$98,214	0%
Anaheim	\$3,424	\$457,338	1%
Arcadia	\$0	\$72,853	0%
Artesia	\$0	\$21,560	0%
Azusa	\$0	\$93,192	0%
Baldwin Park	\$2,500	\$95,440	3%
Banning	\$0	\$39,374	0%
Beaumont	\$900	\$57,615	2%
Bell	\$0	\$46,886	0%
Bell Gardens	\$0	\$69,145	0%
Bellflower	\$0	\$97,515	0%
Beverly Hills	\$0	\$44,392	0%
Big Bear Lake	\$0	\$8,031	0%
Brea	\$0	\$55,817	0%
Buena Park	\$0	\$106,434	0%
Burbank	\$0	\$134,784	0%
Calabasas	\$0	\$26,177	0%
Calimesa	\$555	\$10,585	5%
Canyon Lake	\$0	\$13,640	0%
Carson	\$3,000	\$121,018	2%
Cathedral City	\$0	\$67,213	0%
Cerritos	\$4,065	\$65,045	6%
Chino	\$0	\$109,737	0%
Chino Hills	\$577	\$100,712	1%
Claremont	\$0	\$46,250	0%
Coachella	\$0	\$68,360	0%
Colton	\$0	\$61,899	0%
Commerce	\$0	\$16,763	0%
Compton	\$8,374	\$133,978	6%
Corona	\$985	\$210,269	0%
Costa Mesa	\$555	\$146,347	0%
County of LA	\$0	\$1,619,606	0%
County of Orange	\$3,034	\$165,678	2%
County of Riverside	\$0	\$479,531	0%
County of San Bernardino	\$19,393	\$310,282	6%
Covina	\$2,270	\$62,944	4%
Cudahy	\$680	\$39,720	2%
Culver City	\$0	\$51,652	0%
Cypress	\$0	\$63,522	0%
Dana Point	\$0	\$42,671	0%
Desert Hot Springs	\$0	\$37,094	0%
Diamond Bar	\$0	\$72,892	0%
Downey	\$6,800	\$145,809	5%
Duarte	\$0	\$28,708	0%
Eastvale	\$5,041	\$80,658	6%
El Monte	\$0	\$145,431	0%
El Segundo	\$0	\$35,925	0%
Fontana	\$12,500	\$268,035	5%
Fountain Valley	\$2,212	\$74,663	3%
Fullerton	\$3,748	\$211,917	2%
Garden Grove	\$7,613	\$226,415	3%

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Gardena	\$3,500	\$77,622	5%
Glendale	\$0	\$257,529	0%
Glendora	\$4,200	\$66,866	6%
Grand Terrace	\$0	\$15,726	0%
Hawaiian Gardens	\$0	\$19,071	0%
Hawthorne	\$1,346	\$112,379	1%
Hemet	\$5,000	\$130,391	4%
Hermosa Beach	\$0	\$25,286	0%
Hidden Hills	\$0	\$2,433	0%
Highland	\$3,425	\$68,504	5%
Huntington Beach	\$526	\$249,840	0%
Huntington Park	\$40	\$76,260	0%
Indian Wells	\$0	\$5,342	0%
Indio	\$0	\$112,450	0%
Inglewood	\$6,000	\$148,959	4%
Irvine	\$7,112	\$329,958	2%
Irwindale	\$0	\$1,807	0%
Jurupa Valley	\$0	\$125,372	0%
La Canada Flintridge	\$0	\$26,250	0%
La Habra	\$0	\$79,255	0%
La Habra Heights	\$0	\$10,118	0%
La Habra Heights	\$0	\$6,971	0%
La Mirada	\$0	\$63,389	0%
La Palma	\$0	\$20,505	0%
La Puente	\$0	\$51,745	0%
La Quinta	\$0	\$51,050	0%
La Verne	\$1,827	\$42,396	4%
Laguna Beach	\$0	\$30,159	0%
Laguna Hills	\$0	\$39,180	0%
Laguna Niguel	\$0	\$84,463	0%
Laguna Woods	\$0	\$20,704	0%
Lake Elsinore	\$3,895	\$77,904	5%
Lake Forest	\$0	\$107,153	0%
Lakewood	\$0	\$100,207	0%
Lawndale	\$0	\$42,774	0%
Loma Linda	\$1,574	\$31,474	5%
Lomita	\$0	\$26,281	0%
Long Beach	\$30,000	\$623,623	5%
Los Alamitos	\$0	\$14,989	0%
Los Angeles (City)	\$94,048	\$5,147,445	2%
Lynwood	\$0	\$69,055	0%
Malibu	\$0	\$16,225	0%
Manhattan Beach	\$2,100	\$67,559	3%
Maywood	\$0	\$37,303	0%
Menifee	\$0	\$113,658	0%
Mission Viejo	\$6,988	\$127,165	5%
Monrovia	\$2,875	\$47,927	6%
Montclair	\$0	\$49,402	0%
Montebello	\$0	\$81,631	0%
Monterey Park	\$0	\$79,659	0%
Moreno Valley	\$9,103	\$262,273	3%
Murrieta	\$0	\$145,316	0%
Newport Beach	\$0	\$110,109	0%
Norco	\$1,500	\$34,346	4%
Norwalk	\$0	\$134,457	0%
Ontario	\$13,558	\$216,922	6%
Orange (City)	\$5,329	\$180,593	3%
Palm Desert	\$0	\$63,001	0%

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Palm Springs	\$3,724	\$59,577	6%
Palos Verdes Estates	\$0	\$17,757	0%
Paramount	\$3,600	\$72,023	5%
Pasadena	\$0	\$180,086	0%
Perris	\$0	\$94,143	0%
Pico Rivera	\$4,000	\$82,075	5%
Placentia	\$0	\$66,739	0%
Pomona	\$10,586	\$198,706	5%
Rancho Cucamonga	\$1,910	\$313,349	1%
Rancho Mirage	\$0	\$23,075	0%
Rancho Palos Verdes	\$0	\$54,963	0%
Rancho Santa Margarita	\$0	\$61,955	0%
Redlands	\$0	\$87,306	0%
Redondo Beach	\$4,243	\$88,743	5%
Rialto	\$6,190	\$137,060	5%
Riverside (City)	\$3,767	\$422,378	1%
Rolling Hills Estates	\$0	\$10,252	0%
Rosemead	\$0	\$71,163	0%
San Bernardino (City)	\$17,254	\$276,065	6%
San Clemente	\$0	\$84,595	0%
San Dimas	\$2,180	\$43,602	5%
San Fernando	\$0	\$31,329	0%
San Gabriel	\$0	\$52,621	0%
San Jacinto	\$1,176	\$60,856	2%
San Juan Capistrano	\$0	\$46,080	0%
San Marino	\$0	\$17,324	0%
Santa Ana	\$6,287	\$552,628	1%
Santa Clarita	\$3,902	\$280,442	1%
Santa Fe Springs	\$0	\$23,572	0%
Santa Monica	\$7,010	\$119,577	6%
Seal Beach	\$0	\$32,585	0%
Sierra Madre	\$0	\$14,064	0%
Signal Hill	\$0	\$14,906	0%
South El Monte	\$0	\$26,579	0%
South Gate	\$6,000	\$151,765	4%
South Pasadena	\$0	\$32,726	0%
Stanton	\$2,100	\$50,762	4%
Temecula	\$0	\$139,274	0%
Temple City	\$0	\$46,654	0%
Torrance	\$0	\$189,515	0%
Tustin	\$172	\$105,629	0%
Upland	\$4,838	\$96,763	5%
Villa Park	\$441	\$7,351	6%
Walnut	\$0	\$38,504	0%
West Covina	\$5,301	\$137,753	4%
West Hollywood	\$0	\$46,470	0%
Westlake Village	\$0	\$10,706	0%
Westminster	\$7,508	\$120,131	6%
Whittier	\$5,222	\$112,811	5%
Wildomar	\$2,913	\$54,561	5%
Yorba Linda	\$0	\$86,372	0%
Yucaipa	\$0	\$68,679	0%

Local Government Projects Funded by Category

Fiscal Year 2016 - 2017

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(1) Alternative Fuels/Electric Vehicles			
(1a) Alternative Fuel Vehicle Purchases			
Alhambra		Purchase of one 2017 Chevrolet Volt	\$34,942
Alhambra		Purchase (1) 2017 Ford Fusion	\$33,257
Aliso Viejo		3 alternative fuel vehicles	\$92,929
Arcadia		Vehicle Replacement - Public Works Vehicle	\$91,876
Arcadia		Vehicle Replacement - Passenger Car	\$34,415
Azusa		Alternative Fuel Vehicle Purchase	\$47,406
Azusa		Alternative Fuel Street Sweeper Lease(s)	\$21,151
Baldwin Park		Hybrid Ford Purchase	\$82,463
Baldwin Park		Hybrid Toyota Purchase	\$45,450
Calabasas		Continues Lease of City Fleet (1)	\$23,074
Calabasas		Continued Lease of City Fleet (2)	\$3,103
Calimesa		Alternative Fuel Vehicles	\$18,550
County of Orange		Plug-in Hybrids for Motor Pool Green Fleet Plan	\$309,112
Cudahy		Hybrid Vehicle Lease	\$10,388
Culver City		Purchase of 18 CNG Transit Buses	\$110,000
Downey		Purchase Replacement Vehicles	\$84,809
Fontana		AFV Rebate Program	\$1,500
Fontana		AFV Rebate Program	\$500
Fullerton		Lease of Pool Cars	\$14,536
Garden Grove		Alternative Fuel Vehicle Rebate Program	\$21,304
Hemet		Purchase (1) 2017 Freightliner CNG Dump Truck 114SD	\$30,000
Huntington Park		Toyota Hybrid Leased Vehicle	\$21,945
Jurupa Valley		Purchase Hybrid Vehicle	\$48,281
La Canada Flintridge		Hybrid Gas/Electric Vehicle Purchase	\$36,209
La Mirada		Purchase 6 Ford Fusion S Hybrid 2.0 L IVCT 14HEV	\$144,889
La Puente		Purchase 1 2016 Toyota Rav4 XLE Hybrid	\$33,224
La Verne		Street Sweeper	\$65,000
Lawndale		Hybrid Vehicles	\$30,000
Los Angeles (City)		#1 Alt Fuel Purch-CNG Solid Waste Collection Vehicles	\$346,313
Los Angeles (City)		#2 Alt Fuel Purch-14 Peterbilt 365 Hvy-Haul Truck Tractors	\$346,313
Menifee		Alternative Fuel Vehicle Purchase	\$113,658
Norco		One 2017 Hybrid Nissan Rogue	\$24,954
Norco		One 2017 Hybrid Nissan Rogue	\$24,953
Norwalk		Cleaner Street Sweeping Contract	\$87,564
Perris		Purchase of 2017 Toyota Highlander Hybrid	\$110,308
Pico Rivera		Lease payments of (6) Hybrid Vehicles (2014 Toyota Prius C)	\$15,410
Rancho Palos Verdes		2017 Toyota Prius for CDD	\$22,708
Redlands		Partially fund 1 CNG Passenger Bus	\$56,960
San Fernando		CNG Ford F-250 Utility Truck Purchase	\$96,170
San Jacinto		Purchase of Tier 4 Skiploader	\$105,458
Santa Monica		Purchase of (10) 2017 Nissan Leafs	\$54,875
Santa Monica		Purchase of (5) Ford Focus Evs	\$10,950
South El Monte		Fuel Efficient Vehicle Purchase Program	\$82,218
South Pasadena		Ford F250 Reg Cab CNG Svc Truck	\$40,231
Temple City		Lease of Alternative Fuel Vehicles	\$20,020
Upland		Vehicle Purchase	\$49,075
Upland		Vehicle Purchase	\$32,531
Westlake Village		Lease of one Toyota Rav4 hybrid electric vehicle	\$1,919
Subcategory Total			\$3,312,901

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(1b) Alternative Fuel Vehicle Conversions			
Irvine	CNG Vehicles Conversion		\$197,840
Subcategory Total			\$197,840
(1c) Alternative Fuel Infrastructure (refueling, etc.)			
Eastvale	Purchase Compressed Natural Gas for Alt Fuel Vehs		\$526
Fullerton	CNG Station Upgrades		\$34,123
Gardena	CNG Station Expansion		\$25,426
Jurupa Valley	Infrastructure-Refueling (Compressed Natural Gas)		\$16,176
Lakewood	CNG Fuel Tank Upgrades		\$21,989
Monterey Park	CNG Station Compression Services Tariff (CST) Agreement		\$71,200
Ontario	Compressed Natural Gas - Slow Fill Posts		\$14,236
West Covina	CNG Fuel Station		\$32,740
Subcategory Total			\$216,416
(1d) Electric Vehicle Purchases			
Aliso Viejo	1 electric vehicle		\$15,893
Brea	Police Electric Vehicle for Trail Patrol		\$20,768
Brea	Public Works Electric Vehicle for Trail Maintenance		\$17,794
Coachella	Electric Vehicle Purchase		\$21,392
County of Orange	Electric Forklift Replacement Program, Purchase 1 Unit		\$42,570
County of Orange	Electric forklift Replacement Program, Purchase-One Unit		\$33,320
Huntington Park	Purchased Gator Electric Vehicle		\$10,144
Huntington Park	Electric Fiat 500 E leased Vehicle		\$5,766
La Puente	Purchase 1 2017 GEM ELXD Electric Cart		\$19,997
Lomita	Lease of Electric Golf to replace gas vehicle		\$3,220
Long Beach	Purchase of medium duty electric car		\$287,977
Lynwood	Purchase of 6 Electric Vehicles (Nissan Leafs)		\$178,333
Maywood	Purchase of 4 New Electric Vehicles		\$97,688
Orange (City)	Community Services Electric Vehicle Initiative		\$17,074
Placentia	Purchase of 10 Chevy Spark electric vehicles		\$50,620
Riverside (City)	Electric Vehicle Rebate Program		\$4,500
San Jacinto	Electric Golf Cart Purchase for Water Department		\$2,592
Santa Ana	Electric Vehicle Lease (2)		\$12,525
South Gate	Purchase (1) Smithco Super Star Electric Utility Bunker Rack		\$18,846
South Gate	Purchase (1) John Deere Electric Gator Utility Vehicle		\$10,873
West Covina	2 "Zero" Electric Motorcycles		\$36,745
Yorba Linda	Purchase (1) Electric Vehicle in Replacement Program		\$10,641
Subcategory Total			\$919,277
(1f) Electric Veh Infrastructure			
Chino Hills	Electric Vehicle Charging Stations		\$10,180
Claremont	EV Charging Stations For Public Use		\$600
Downey	4 EV Charging Stations		\$80,693
Fountain Valley	Fountain Valley Electric Vehicle Charging Stations		\$69,150
Indio	EV Infrastructure		\$782
La Canada Flintridge	Electric Vehicle Charging Station		\$2,573
Lomita	Installation of electric charging stations		\$17,657
Los Angeles (City)	EV Car Charging Stations at Citywide Locations		\$123,265
Lynwood	Charging Stations		\$21,896
Maywood	Installation of a Charging Station for Electric Vehicles		\$33,559
Murrieta	Purchase and install of electric charging station		\$13,917
Newport Beach	Electric Vehicle Charging Stations		\$36,650
Ontario	Electric Vehicle Charging Station		\$148,909
Orange (City)	Electric Car Charging Stations		\$2,541
Palm Desert	Electric Vehicle DC Fast Charger Project		\$4,480
Rialto	EV Charging stations at Riverside/Easton		\$16,389
Santa Clarita	Electric Vehicle Charging Station (R4004)		\$6,600
Santa Monica	Installation of EV Infrastructure		\$66,505
Stanton	Electric Charging Stations		\$22,113
Westminster	Electrical charging stations		\$93,925
Subcategory Total			\$772,384
Category Total			\$5,238,818

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(2) Vehicle Emissions Abatement			
	(2a) Off Road Veh Cleaner Diesel Purchases, Repowers, & Retrofits		
Hemet		Particulate Trap for (1) Constr. Backhoe 1 of 2	\$17,646
Hemet		Particulate Trap for (1) Constr. Backhoe 2 of 2	\$17,646
		Subcategory Total	\$35,292
		Category Total	\$35,292
(3) Land Use			
	(3a) Plan Elements		
Bell Gardens		SR-91/I-605/I-405 "Hot Spots" Gateway Project	\$12,000
Bell Gardens		Gateway Cities COG-I-710 Major Corridor Study	\$10,000
Cudahy		General Plan Elements	\$6,162
Hawaiian Gardens		Gateway Cities Strategic Transportation Plan (STP)	\$6,500
Los Angeles (City)		Land Use	\$270,000
Mission Viejo		City of Mission Viejo Air Quality Planning: FY16-17	\$36,488
Pico Rivera		Development of Strategic Transportation Plans	\$10,600
Santa Ana		General Plan Land Use Designations	\$29,277
Santa Ana		Metro East Mixed Use Overlay Plan	\$7,383
Santa Ana		General Plan Circulation Element	\$3,265
Signal Hill		FY 16-17 I-710 Corridor EIR/ EIS	\$1,000
Whittier		Dev. Gateway COG Strategic Transportation Plan	\$15,497
		Subcategory Total	\$408,172
	(3b) Development Guidelines		
Lakewood		91/605/405 COG Major Corridor Study	\$10,000
Santa Ana		TOD Parking Guidelines	\$230
		Subcategory Total	\$10,230
	(3c) Facilities (Pedestrian, mixed use, etc.)		
Fontana		Juniper @ Metrolink Xing	\$56,038
Fontana		Sierra @ Metrolink Xing	\$53,801
		Subcategory Total	\$109,839
		Category Total	\$528,240
(4) Public Transportation (Transit & Rail)			
	(4a) Public Transportation Facilities (multi-modal, shelters)		
Fontana		Bus Shelter Program	\$189,735
Santa Clarita		Vista Canyon Regional Transit Center (T3021)	\$67,435
Stanton		Replacement of bus Shelters	\$54,945
		Subcategory Total	\$312,115
	(4c) Transit Operations (new service, shuttles, fuel subsidies)		
Anaheim		ART Shuttle - Route 17	\$30,203
Grand Terrace		Senior Transportation Program	\$5,000
Huntington Beach		4th of July/US Surf Open Shuttle	\$21,501
La Habra		Shuttles to transport seniors	\$89,452
Mission Viejo		Mission Viejo (MV) Shuttle: FY16-17	\$105,289
Rancho Palos Verdes		Palos Verdes Peninsular Transit Authority Jt Powers Authority	\$54,963
San Clemente		San Clemente Summer Trolley	\$93,053
San Juan Capistrano		Trolley Program	\$15,600
Seal Beach		Senior Transportation Nutrition Shuttle	\$32,585
Temecula		Route 55 RTA Transit New Services	\$19,455
Westminster		Project V - Pilot Shuttle Program	\$16,003
		Subcategory Total	\$483,104

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(4d) Passenger Fare Subsidies			
Anaheim		METROLINK & OCTA Transit Subsidies	\$111,491
Azusa		Transit Pass Subsidy	\$8,427
Burbank		Employee Transit Subsidies	\$24,703
Compton		Employee Transit Subsidies	\$39,534
Corona		Corona Cruiser Fare Subsidy	\$23,345
Covina		Commuter Choice Reimbursement Program	\$1,046
Garden Grove		Transit Subsidy (Metrolink & Bus)	\$4,992
Glendale		Transit Fare Subsidy	\$60,000
Laguna Beach		Free Main Line Service During Summer	\$26,410
Laguna Beach		Free Ride to Work Bus Pass Program	\$2,100
Monrovia		Monrovia Public Transportation Subsidy Program	\$9,732
Norwalk		Transit Subsidy	\$26,000
Riverside (City)		Riverside Go Transit Bus Pass Subsidy Program	\$72,880
Riverside (City)		City Pass Program	\$14,130
South El Monte		Bus Pass Subsidy Program	\$6,646
Walnut		Bus Pass Subsidies	\$8,093
Subcategory Total			\$439,529
Category Total			\$1,234,748
(5) Traffic Management			
(5a) Traffic Calming			
Diamond Bar		Neighborhood Traffic Management Program(PJ#22316)	\$6,380
Huntington Park		Traffic Calming Activities - Pacific Blvd	\$341,699
Long Beach		6th Street Traffic Calming	\$68,005
Los Angeles (City)		Traffic Calming	\$270,000
Rancho Santa Margarita		Install Speed Feedback Signs (3 Locations)	\$18,030
San Clemente		Marblehead Coastal Sidewalk Improvements	\$100,000
San Juan Capistrano		Neighborhood Traffic Calming Project	\$5,883
Subcategory Total			\$809,997
(5b) Traffic Flow or Signalization (timing, surveillance)			
Anaheim		Traffic Signal Synchronization	\$158,739
Artesia		Pre-Emption Replacement	\$17,397
Costa Mesa		Sunflower Ave. & Anton Blvd. Signal Improvements	\$13,454
Costa Mesa		Baker St./Placentia Ave. Traffic Signal Sync Project	\$11,461
Costa Mesa		Fairview Rd. Traffic Signal Synchronization Project	\$5,101
Costa Mesa		Victoria St. Traffic Signal Synchronization Project	\$928
Costa Mesa		17th. St. Signal Synchronization Project	\$633
Diamond Bar		Traffic Signal Infrastructure Upgrades (PJ#24914)	\$103,314
Diamond Bar		Traffic Signal Infrastructure Upgrades (PJ#24516)	\$50,000
Eastvale		Hamner Ave Traffic Signal Synchronization	\$1,791
Fontana		Sierra @ I-15 Fwy	\$359
Highland		Traffic Signal Synchronization	\$13,620
Huntington Beach		Traffic Management Software Update	\$8,500
Huntington Beach		Peak Time Traffic Volume Monitoring	\$4,550
Irwindale		Left Turn Phasing on Peck Rd & Longden	\$3,523
Laguna Niguel		Traffic Signal Coordination	\$17,171
Lake Forest		Prof Serv-Traffic Engineer for Traffic Signal Monitoring	\$32,733
Lake Forest		Traffic Signal System Communications Enhancements	\$19,682
Lake Forest		Signal Maintenance Centracs Software	\$6,922
Lake Forest		Barranca/Muirlands Traffic Signal Synchronization	\$4,434
Lake Forest		Alton Parkway Traffic Signal Synchronization	\$2,490
Lake Forest		Bake Parkway Traffic Signal Synchronization Project	\$1,217
Loma Linda		Signal Coordination	\$27,110
Los Angeles (City)		Seg 7 Vermont Bl from Imperial Hwy to 190th St	\$190,443
Los Angeles (City)		Seg1 Figueroa St between Imperial Hwy and 190th St	\$190,443
Los Angeles (City)		Seg 5 Nordhoff St from Woodley Av to Tampa Av	\$158,027
Los Angeles (City)		Seg 8 Vermont Av from Wilshire Bl to MLK Jr Bl	\$145,871
Los Angeles (City)		Seg 4 Reseda Bl from San Fern Mission Bl to Parthenia St	\$121,559

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
Los Angeles (City)		Seg 2 Westwood Bl from Pico Bl to Lindbrook Dr	\$64,831
Los Angeles (City)		Seg 6 Adams Bl from Figueroa St to Normandie Av	\$60,780
Los Angeles (City)		Seg 3 Wilshire Bl from Beverly Glen Bl to Westwood Bl	\$44,572
Los Angeles (City)		Seg 9 Whitsett Av from Chandler Bl to Oxnard Av	\$32,416
Los Angeles (City)		Seg10 Magnolia Bl from Leghorn Av to Bluebell Av	\$12,156
Mission Viejo		City of Mission Viejo Traffic Signal Synchronization	\$4,738
Moreno Valley		Traffic Signal Coordination Program	\$250
Placentia		Kraemer Blvd Signal Sync.	\$3,751
Pomona		Traffic Operations Communication Upgrade	\$69,050
Rancho Santa Margarita		Antonio Parkway Signal & Equipment Upgrade	\$6,141
Rancho Santa Margarita		Santa Margarita Pkwy Signal & Equipment Upgrade	\$1,273
Riverside (City)		Riverside Traffic Management Center	\$30,353
San Juan Capistrano		Regional Traffic Synchronization Program	\$28,414
Santa Clarita		ITS Phase IV (10009)	\$323,128
Subcategory Total			\$1,993,322
(5c) Alternate Mode Signalization (transit/bike pre-emption)			
Costa Mesa		Install Bicycle Signal on Placentia Ave	\$2,985
San Juan Capistrano		Countdown Pedestrian Signals Project	\$6,797
Subcategory Total			\$9,782
(5d) Traffic Management Research and Dev			
Rancho Cucamonga		Freeway and Arterial Signal Synchronization Project	\$12,000
Subcategory Total			\$12,000
Category Total			\$2,825,101
(6) Transportation Demand Management			
(6a) Employer-Based Trip Reduction			
Anaheim		Trip Reduction Program	\$74,473
Arcadia		Rideshare Plus Program	\$22,444
Azusa		Rideshare Financial Incentives	\$10,314
Baldwin Park		Employee Trip Reduction Incentive Programs	\$1,910
Bell Gardens		Employee Rideshare Subsidies	\$617
Burbank		Employee Rideshare Subsidies	\$39,745
Carson		Employee Carpool Program	\$19,080
Cerritos		Employee Rideshare Trip Rebate Program	\$24,128
Claremont		Employees Using Public Transportation (6 Employees)	\$3,010
Commerce		Employer Based Trip Reduction	\$16,763
Compton		Employee Trip Reduction Program	\$27,122
County of LA		Employee Commute Reduction Program	\$680,485
County of Orange		Employee Rideshare Program	\$35,000
County of Riverside		Commuter Services Rideshare Program	\$197,712
County of San Bernardino		Employee Commute Reduction Program	\$200,568
Downey		Downey Employee "Thumbs Up" Commuting Program	\$121,239
El Monte		Monthly Rideshare Incentive	\$48,652
Fontana		Rideshare Activities	\$11,981
Garden Grove		TDM Services	\$58,147
Glendale		Employer Based Trip Reduction Program	\$89,187
Glendora		Altcom Program	\$13,476
Hawthorne		Financial Incentives for rideshare	\$2,630
Huntington Beach		Employee Rideshare Activities	\$19,838
La Verne		Bike, Carpool, Walk, Incentive Program	\$12,205
Los Angeles (City)		Employer's Rail and Bus Transit Incentive Program	\$225,970
Los Angeles (City)		Employer' Carpool Program	\$48,399
Los Angeles (City)		Bicycle Transit Incentive Program	\$8,786
Los Angeles (City)		Employer's Walk Incentive Program	\$8,786
Manhattan Beach		Rideshare Program	\$11,880
Monrovia		Monrovia Employee Ride Share	\$3,600
Montclair		Rideshare Program	\$25,776

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
Montebello		Employee Commute Reduction Program	\$30,446
Monterey Park		Employee Transportation Program	\$25,000
Newport Beach		Employee Rideshare Program	\$8,989
Orange (City)		Trip Reduction Program	\$108,652
Palm Desert		City Rideshare Program	\$1,576
Pasadena		Prideshare	\$151,630
Rancho Cucamonga		Employer Ride Share Program	\$16,574
Redondo Beach		Employee Rideshare	\$59,854
Rialto		Employee Rideshare Program	\$65,929
Riverside (City)		Employee Rideshare Program	\$1,200
San Bernardino (City)		Rideshare Program	\$21,876
Santa Ana		Blue Skies Ride share Program	\$133,996
Santa Clarita		Rideshare	\$2,335
South Gate		Employee Rideshare Program	\$2,486
Stanton		Commute Incentive Program	\$380
Torrance		Employee Rideshare	\$152,579
Upland		Rideshare Activities	\$13,128
West Hollywood		Alternative Transportation Mode Incentive	\$30,584
Westminster		Employee Rideshare Program	\$9,169
Whittier		Employee-Based Trip Reduction	\$7,097
Subcategory Total			\$2,907,404
(6b) Other Trip Reduction Incentive Programs			
Carson		Carpool Program for Community Event	\$9,935
Hermosa Beach		AQMD Incentives to reduce auto trips	\$6,525
Los Angeles (City)		Trip Reduction Programs	\$160,296
San Juan Capistrano		Sr Nutritional Transportation Program	\$10,195
Subcategory Total			\$186,951
(6c) Vanpool Programs			
Anaheim		Citywide Vanpool Program	\$92,116
County of San Bernardino		Vanpool Subsidy Program	\$20,480
Garden Grove		Vanpool Program Conventional Gasoline	\$56,329
Garden Grove		Vanpool Program CNG	\$30,768
Los Angeles (City)		Employee Vanpool Program	\$260,917
Westminster		Employee Vanpool Program	\$8,221
Subcategory Total			\$468,830
(6d) Park and Ride Lots (for carpools, transit)			
Irvine		Security Service Provided by Irvine PS at Train Station	\$173,166
Temecula		Construct Park and Ride near Temecula Pkway	\$232,112
Subcategory Total			\$405,278
(6f) Transportation Management Agencies/Organizations			
Glendale		Transportation Management Agency Services	\$8,111
Irvine		Irvine Spectrum TMA	\$3,756
Subcategory Total			\$11,868
Category Total			\$3,980,332
(8) Bicycles			
(8a) Bicycle Lanes and Trails (also bridges)			
Highland		Class II Bike Lane Installation	\$317,023
Irvine		Implementing Lights at San Diego Creek Trail	\$197,715
Long Beach		Class II Bike Lanes to LA River	\$92,174
Long Beach		Bike Buoys	\$61,406
Long Beach		Protected Bike Lanes on 3rd and Broadway	\$38,180
Long Beach		Class I Bicycle Path Gap Closure - Pier J Project	\$4,853
Long Beach		Class I Willow Bike Path to San Gabriel River	\$2,644

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
Long Beach		Bicycle - Fix It Stations	\$2,410
Redlands		Installation of Class II Bike Lanes	\$83,040
Yorba Linda		Bike Lane Enhancement Program	\$8,500
Yucaipa		Class II Bike Lane Construction Activities - Yucaipa Blvd.	\$141,122
Yucaipa		Class II Bike Lane Construction Activities	\$43,511
Subcategory Total			\$992,577
(8b) Other Bicycle Facilities (racks, lockers, loop detectors)			
Beverly Hills		Beverly Hills Bike Share	\$12,490
Los Angeles (City)		Bike Repair Stations and Bicycle Parking	\$117,764
Riverside (City)		Bicycle Racks	\$2,319
San Clemente		Downtown Bicycle Racks	\$39,865
West Hollywood		Bike Rack Installation	\$8,308
Subcategory Total			\$180,746
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)			
Long Beach		Bike Share Program	\$20,177
Orange (City)		Orange Police Bike Team	\$6,461
Orange (City)		Bike Loan to Own Program	\$2,105
Santa Clarita		Bike to work	\$2,809
West Hollywood		Citywide Bike Share Program	\$10,380
Westlake Village		Bike purchase for Animal Control patrol	\$550
Subcategory Total			\$42,482
(8d) Bicycle Research and Dev (engineering studies)			
Fullerton		Priority Bike Connection	\$18,192
Rancho Cucamonga		Southwest Cucamonga Class I Bicycle Lanes Project	\$9,802
Subcategory Total			\$27,994
Category Total			\$1,243,799
(9) PM Reduction Strategies			
(9a) Road Dust Control (paving roads, shoulders, street sweeping)			
Cathedral City		Regional PM10 Street Sweeping Program	\$51,968
Coachella		Regional PM10 Street Sweeping Program	\$57,985
Colton		Lease of a CNG Street Sweeper	\$41,986
County of Riverside		Regional PM10 Street Sweeping Program	\$47,768
Desert Hot Springs		Regional PM10 Street Sweeping Program	\$27,821
El Monte		Regional PM10 Street Sweeper Contract (2 Vehicles)	\$43,066
Hawthorne		PM10 Reduction Street Sweeping Project	\$100,000
Indian Wells		Regional PM10 Street Sweeping Program	\$4,932
Indio		Regional PM 10 Street Sweeping Program	\$84,337
Jurupa Valley		Contract Street Weeping	\$57,120
La Quinta		Regional PM 10 Street Sweeping Program	\$38,288
Lake Elsinore		Citywide Dirt Road Paving Program	\$86,052
Loma Linda		City Street Sweeping	\$19,200
Lomita		Leasing alternative fuel street sweepers	\$15,000
Moreno Valley		Street Sweeping Program	\$165,393
Palm Desert		Regional PM10 Street Sweeping Program	\$47,250
Palm Springs		Regional PM10 Street Sweeping Program	\$44,683
Rancho Mirage		Regional PM10 Street Sweeping Program	\$17,306
Walnut		Street Sweeping with CNG Sweeper	\$50,860
Subcategory Total			\$1,001,014
Category Total			\$1,001,014
(10) Public Education			
(10a) Short Term PE (promote transit, rideshare; conferences)			
Anaheim		Rideshare Outreach	\$23,170
Glendale		Commute Program Outreach	\$29,930
Long Beach		2016 Active Transportation Public Education Event	\$82,318
Long Beach		Bike Share Marketing	\$3
Los Angeles (City)		Air Quality Education/Outreach Improvement Strategies	\$151,059

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
Santa Clarita		Promotion and Advertising	\$5,051
Santa Monica		Sponsorship of AltCar Expo	\$10,000
West Hollywood		Bike Light Giveaway Events (2)	\$2,037
		Subcategory Total	\$303,567
	(10b) Long Term PE (curriculum, video, brochures, bilingual)		
Santa Clarita		Green Guide	\$300
		Subcategory Total	\$300
		Category Total	\$303,867
(11) Miscellaneous Projects			
	(11a) Miscellaneous (use with "Miscellaneous Projects" Category)		
Agoura Hills		Hybrid Battery Replacement	\$4,415
Alhambra		Rule 2202 Compliance	\$315
Buena Park		Employer Trip Reduction Program Filing Fees	\$791
Calimesa		Clean Cities Coalition	\$3,000
Chino		Vehicle Emission Credits Purchases	\$5,519
Chino		Emission Credit Filing Fee	\$555
Corona		Western Riverside Council of Gov., Clean Cities Coalition	\$6,000
County of Riverside		Purchase of Mobile Source Emission Reduction Credits	\$273,287
County of Riverside		WRCOG Clean Cities Coalition Program	\$25,000
County of Riverside		Rule 2202 Multisite Cluster Registration	\$7,553
County of Riverside		Audit of AB2766 Revenue and Expense	\$6,370
Eastvale		WRCOG Clean Cities Coalition	\$6,000
Fullerton		Rule 2202 Emission Credits	\$21,571
Gardena		Gardena Rule 2202 Compliance	\$43,634
Glendora		Bicycle Rally	\$935
Hemet		WRCOG Clean Cities Coalition	\$4,150
Huntington Beach		Rule 2202 Filing	\$1,057
Indio		Audit Expenses	\$2,006
Inglewood		Rule 2202 MSERC's Purchase Credits	\$12,209
Irvine		Purchase Rule 2202 Credit	\$7,794
Lake Elsinore		Clean Cities Coalition (WRCOG)	\$6,000
Lomita		Online Submittal System	\$5,000
Long Beach		Rule 2202 Emissions Credit Purchase	\$35,353
Long Beach		Develop Gateway COG Transportation Plan	\$17,500
Los Angeles (City)		BOE Alt Fuel Infrastructure Eng Design & Tech Support	\$230,050
Los Angeles (City)		Alternative Commute/EV Car Sharing Program Development	\$112,253
Los Angeles (City)		Scope of Work for Integrated Mobility Hubs	\$110,000
Los Angeles (City)		Green Taxi Program Development	\$105,960
Los Angeles (City)		Annual Audit	\$13,842
Moreno Valley		WRCOG - Clean Cities Coalition	\$15,000
Norwalk		Ab 2766 Audit Expenses	\$2,664
Ontario		Purchase Emission Reduction Credits	\$15,334
Pomona		Purchase of Emission Credits	\$8,680
Riverside (City)		ProjectDox	\$69,251
Riverside (City)		Clean Cities Coalition	\$25,000
Riverside (City)		AQMD Rule 2202 Compliance	\$23,472
San Jacinto		WRCOG Clean Cities Coalition	\$6,000
Temecula		WRCOG Clean Cities California	\$10,000
West Covina		Air Quality Investment Program (AQIP)	\$6,127
West Covina		AQMD 2766 Annual Audit Fee	\$1,500
Whittier		Rule 2202 Compliance - Emission Credits Purchased	\$12,600
Whittier		Rule 2202 Filing Fees	\$555
		Subcategory Total	\$1,264,304
		Category Total	\$1,264,304
		GRAND TOTAL:	\$17,655,513

Percent of Project Expenditures by Project Category

Fiscal Year 2016 - 2017

Project Category	Project Expenditures	Percent of Total Project Expenditures	Number of Projects
(1) Alternative Fuels/Electric Vehicles	\$5,238,818	30%	99
(6) Transportation Demand Management	\$3,980,332	23%	65
(5) Traffic Management	\$2,825,101	16%	52
(11) Miscellaneous Projects	\$1,264,304	7%	41
(8) Bicycles	\$1,243,799	7%	25
(4) Public Transportation (Transit & Rail)	\$1,234,748	7%	30
(9) PM Reduction Strategies	\$1,001,014	6%	19
(3) Land Use	\$528,240	3%	16
(10) Public Education	\$303,867	2%	9
(2) Vehicle Emissions Abatement	\$35,292	0%	2
	\$17,655,513	100%	359

Summary of Spending by Project SubCategory

Fiscal Year 2016 - 2017

Subcategory	Category	Expenditures by Subcategory	Number of Projects
(1) Alternative Fuels/Electric Vehicles			
(1a)	Alternative Fuel Vehicle Purchases	\$3,132,901	48
(1b)	Alternative Fuel Vehicle Conversions	\$197,840	1
(1c)	Alternative Fuel Infrastructure (refueling, etc.)	\$216,416	8
(1d)	Electric Vehicle Purchases	\$919,277	22
(1f)	Electric Vehicle Infrastructure	\$772,384	20
(2) Vehicle Emissions Abatement			
(2d)	On-road CARB-verified Diesel Emission Control Systems--	\$35,292	2
(3) Land Use			
(3a)	Plan Elements	\$408,172	12
(3c)	Facilities (Pedestrian, mixed use, etc.)	\$10,230	2
(3d)	Land Use Research	\$109,839	2
(4) Public Transportation (Transit & Rail)			
(4a)	Public Transportation Facilities (multi-modal, shelters)	\$312,115	3
(4c)	Transit Operations (new service, shuttles, fuel subsidies)	\$483,104	11
(4d)	Passenger Fare Subsidies	\$439,529	16
(5) Traffic Management			
(5a)	Traffic Calming	\$809,997	7
(5b)	Traffic Flow or Signalization (timing, surveillance)	\$1,993,322	42
(5c)	Alternate Mode Signalization (transit/bike pre-emption)	\$9,782	2
(5d)	Traffic Management Research and Dev	\$12,000	1
(6) Transportation Demand Management			
(6a)	Employer-Based Trip Reduction	\$2,907,404	51
(6b)	Other Trip Reduction Incentive Programs	\$186,951	4
(6c)	Vanpool Programs	\$468,830	6
(6d)	Park and Ride Lots (for carpools, transit)	\$405,278	2
(6f)	Transportation Management Agencies/Organizations	\$11,868	2
(8) Bicycles			
(8a)	Bicycle Lanes and Trails (also bridges)	\$992,577	12
(8b)	Other Bicycle Facilities (racks, lockers, loop detectors)	\$180,746	5

Subcategory	Category	Expenditures by Subcategory	Number of Projects
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)		\$42,482	6
(8d) Bicycle Research and Dev (engineering studies)		\$27,994	2
(9) PM Reduction Strategies			
(9a) Road Dust Control (paving roads, shoulders, street sweeping)		\$1,001,014	19
(10) Public Education			
(10a) Short Term PE (promote transit, rideshare; conferences)		\$303,567	8
(10b) Long Term PE (curriculum, video, brochures, bilingual)		\$300	1
(11) Miscellaneous Projects			
(11a) Miscellaneous (use with "Miscellaneous Projects" Category)		\$1,264,304	42
Grand Total		\$17,655,513	359

Project Funding Sources

Fiscal Year 2016 - 2017

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Agoura Hills					
Hybrid Battery Replacement	\$4,415	\$0	\$0	\$0	\$0
Alhambra					
Purchase (1) 2017 Ford Fusion	\$33,257	\$0	\$0	\$0	\$0
Purchase of one 2017 Chevrolet Volt	\$34,942	\$0	\$0	\$0	\$0
Rule 2202 Compliance	\$315	\$0	\$0	\$0	\$0
Aliso Viejo					
1 electric vehicle	\$15,893	\$0	\$0	\$0	\$0
3 alternative fuel vehicles	\$92,929	\$0	\$0	\$0	\$0
Anaheim					
ART Shuttle - Route 17	\$30,203	\$0	\$0	\$0	\$2,508
Citywide Vanpool Program	\$92,116	\$0	\$0	\$0	\$14,683
METROLINK & OCTA Transit Subsidies	\$111,491	\$0	\$0	\$0	\$16,535
Rideshare Outreach	\$23,170	\$0	\$0	\$0	\$2,846
Traffic Signal Synchronization	\$158,739	\$0	\$0	\$0	\$13,179
Trip Reduction Program	\$74,473	\$0	\$0	\$0	\$6,183
Arcadia					
Rideshare Plus Program	\$22,444	\$0	\$0	\$0	\$0
Vehicle Replacement - Passenger Car	\$34,415	\$0	\$0	\$0	\$0
Vehicle Replacement - Public Works Vehicle	\$91,876	\$0	\$0	\$0	\$0
Artesia					
Pre-Emption Replacement	\$17,397	\$0	\$0	\$0	\$0
Azusa					
Alternative Fuel Street Sweeper Lease(s)	\$21,151	\$0	\$0	\$0	\$7,051
Alternative Fuel Vehicle Purchase	\$47,406	\$30,000	\$0	\$0	\$0
Rideshare Financial Incentives	\$10,314	\$0	\$0	\$0	\$0
Transit Pass Subsidy	\$8,427	\$0	\$0	\$0	\$0
Baldwin Park					
Employee Trip Reduction Incentive Programs	\$1,910	\$0	\$0	\$0	\$0
Hybrid Ford Purchase	\$82,463	\$0	\$0	\$0	\$0
Hybrid Toyota Purchase	\$45,450	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Banning					
	\$0	\$0	\$0	\$0	\$0
Beaumont					
	\$0	\$0	\$0	\$0	\$0
Bell					
	\$0	\$0	\$0	\$0	\$0
Bell Gardens					
Employee Rideshare Subsidies	\$617	\$0	\$0	\$0	\$0
Gateway Cities COG-I-710 Major Corridor Study	\$10,000	\$0	\$0	\$0	\$0
SR-91/I-605/I-405 "Hot Spots" Gateway Project	\$12,000	\$0	\$0	\$0	\$0
Bellflower					
	\$0	\$0	\$0	\$0	\$0
Beverly Hills					
Beverly Hills Bike Share	\$12,490	\$0	\$0	\$0	\$0
Big Bear Lake					
	\$0	\$0	\$0	\$0	\$0
Brea					
Police Electric Vehicle for Trail Patrol	\$20,768	\$0	\$0	\$0	\$0
Public Works Electric Vehicle for Trail Maintenance	\$17,794	\$0	\$0	\$0	\$0
Buena Park					
Employer Trip Reduction Program Filing Fees	\$791	\$0	\$0	\$0	\$0
Burbank					
Employee Rideshare Subsidies	\$39,745	\$0	\$0	\$0	\$0
Employee Transit Subsidies	\$24,703	\$0	\$0	\$0	\$0
Calabasas					
Continued Lease of City Fleet (2)	\$3,103	\$0	\$0	\$0	\$0
Continues Lease of City Fleet (1)	\$23,074	\$0	\$0	\$0	\$0
Calimesa					
Alternative Fuel Vehicles	\$18,550	\$0	\$0	\$0	\$36,177
Clean Cities Coalition	\$3,000	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Canyon Lake					
	\$0	\$0	\$0	\$0	\$0
Carson					
Carpool Program for Community Event	\$9,935	\$0	\$0	\$0	\$0
Employee Carpool Program	\$19,080	\$0	\$0	\$0	\$0
Cathedral City					
Regional PM10 Street Sweeping Program	\$51,968	\$0	\$0	\$0	\$0
Cerritos					
Employee Rideshare Trip Rebate Program	\$24,128	\$0	\$0	\$0	\$0
Chino					
Emission Credit Filing Fee	\$555	\$0	\$0	\$0	\$0
Vehicle Emission Credits Purchases	\$5,519	\$0	\$0	\$0	\$0
Chino Hills					
Electric Vehicle Charging Stations	\$10,180	\$0	\$0	\$0	\$0
Claremont					
Employees Using Public Transportation (6 Employees)	\$3,010	\$0	\$0	\$0	\$0
EV Charging Stations For Public Use	\$600	\$0	\$0	\$0	\$0
Coachella					
Electric Vehicle Purchase	\$21,392	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$57,985	\$0	\$0	\$0	\$0
Colton					
Lease of a CNG Street Sweeper	\$41,986	\$0	\$0	\$0	\$0
Commerce					
Employer Based Trip Reduction	\$16,763	\$0	\$0	\$0	\$0
Compton					
Employee Transit Subsidies	\$39,534	\$0	\$0	\$0	\$0
Employee Trip Reduction Program	\$27,122	\$0	\$0	\$0	\$0
Corona					
Corona Cruiser Fare Subsidy	\$23,345	\$0	\$0	\$0	\$0
Western Riverside Council of Gov., Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Costa Mesa					
17th. St. Signal Synchronization Project	\$633	\$0	\$0	\$0	\$0
Baker St./Placentia Ave. Traffic Signal Sync Project	\$11,461	\$0	\$0	\$0	\$0
Fairview Rd. Traffic Signal Synchronization Project	\$5,101	\$0	\$0	\$0	\$0
Install Bicycle Signal on Placentia Ave	\$2,985	\$0	\$0	\$0	\$0
Sunflower Ave. & Anton Blvd. Signal Improvements	\$13,454	\$0	\$0	\$0	\$0
Victoria St. Traffic Signal Synchronization Project	\$928	\$0	\$0	\$0	\$0
County of LA					
Employee Commute Reduction Program	\$680,485	\$0	\$0	\$0	\$0
County of Orange					
Electric Forklift Replacement Program, Purchase 1 Unit	\$42,570	\$0	\$0	\$0	\$0
Electric forklift Replacement Program, Purchase-One Unit	\$33,320	\$0	\$0	\$0	\$0
Employee Rideshare Program	\$35,000	\$0	\$0	\$0	\$167, 980
Plug-in Hybrids for Motor Pool Green Fleet Plan	\$309,112	\$0	\$0	\$0	\$0
County of Riverside					
Audit of AB2766 Revenue and Expense	\$6,370	\$0	\$0	\$0	\$0
Commuter Services Rideshare Program	\$197,712	\$0	\$0	\$0	\$0
Purchase of Mobile Source Emission Reduction Credits	\$273,287	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$47,768	\$0	\$0	\$0	\$0
Rule 2202 Multisite Cluster Registration	\$7,553	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition Program	\$25,000	\$0	\$0	\$0	\$0
County of San Bernardino					
Employee Commute Reduction Program	\$200,568	\$0	\$0	\$0	\$0
Vanpool Subsidy Program	\$20,480	\$0	\$0	\$0	\$0
Covina					
Commuter Choice Reimbursement Program	\$1,046	\$0	\$0	\$0	\$0
Cudahy					
General Plan Elements	\$6,162	\$0	\$0	\$0	\$0
Hybrid Vehicle Lease	\$10,388	\$0	\$0	\$0	\$0
Culver City					
Purchase of 18 CNG Transit Buses	\$110,000	\$0	\$0	\$0	\$10,765,122

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Cypress	\$0	\$0	\$0	\$0	\$0
Dana Point	\$0	\$0	\$0	\$0	\$0
Desert Hot Springs					
Regional PM10 Street Sweeping Program	\$27,821	\$0	\$0	\$0	\$0
Diamond Bar					
Neighborhood Traffic Management Program (PJ#22316)	\$6,380	\$0	\$0	\$0	\$0
Traffic Signal Infrastructure Upgrades (PJ#24516)	\$50,000	\$0	\$0	\$0	\$0
Traffic Signal Infrastructure Upgrades (PJ#24914)	\$103,314	\$0	\$0	\$0	\$0
Downey					
4 EV Charging Stations	\$80,693	\$40,000	\$0	\$0	\$0
Downey Employee "Thumbs Up" Commuting Program	\$121,239	\$0	\$0	\$0	\$0
Purchase Replacement Vehicles	\$84,809	\$0	\$0	\$0	\$0
Duarte	\$0	\$0	\$0	\$0	\$0
Eastvale					
Hamner Ave Traffic Signal Synchronization	\$1,791	\$0	\$0	\$0	\$0
Purchase Compressed Natural Gas for Alt Fuel Vehicles	\$526	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0
El Monte					
Monthly Rideshare Incentive	\$48,652	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeper Contract (2 Vehicles)	\$43,066	\$0	\$0	\$0	\$0
El Segundo	\$0	\$0	\$0	\$0	\$0
Fontana					
AFV Rebate Program	\$500	\$0	\$0	\$0	\$0
AFV Rebate Program	\$1,500	\$0	\$0	\$0	\$0
Bus Shelter Program	\$189,735	\$0	\$0	\$0	\$0
Juniper @ Metrolink Xing	\$56,038	\$0	\$0	\$0	\$0
Rideshare Activities	\$11,981	\$0	\$0	\$0	\$0
Sierra @ I-15 Fwy	\$359	\$0	\$0	\$0	\$0
Sierra @ Metrolink Xing	\$53,801	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Fountain Valley					
Fountain Valley Electric Vehicle Charging Stations	\$69,150	\$115,250	\$0	\$0	\$0
Fullerton					
CNG Station Upgrades	\$34,123	\$0	\$0	\$0	\$0
Lease of Pool Cars	\$14,536	\$0	\$0	\$0	\$0
Priority Bike Connection	\$18,192	\$0	\$0	\$0	\$0
Rule 2202 Emission Credits	\$21,571	\$0	\$0	\$0	\$0
Garden Grove					
Alternative Fuel Vehicle Rebate Program	\$21,304	\$0	\$0	\$0	\$0
TDM Services	\$58,147	\$0	\$0	\$0	\$0
Transit Subsidy (Metrolink & Bus)	\$4,992	\$0	\$0	\$0	\$0
Vanpool Program CNG	\$30,768	\$0	\$0	\$0	\$0
Vanpool Program Conventional Gasoline	\$56,329	\$0	\$0	\$0	\$0
Gardena					
CNG Station Expansion	\$25,426	\$0	\$0	\$0	\$0
Gardena Rule 2202 Compliance	\$43,634	\$0	\$0	\$0	\$0
Glendale					
Commute Program Outreach	\$29,930	\$0	\$0	\$0	\$0
Employer Based Trip Reduction Program	\$89,187	\$0	\$0	\$0	\$0
Transit Fare Subsidy	\$60,000	\$0	\$0	\$0	\$0
Transportation Management Agency Services	\$8,111	\$0	\$0	\$0	\$0
Glendora					
Altcom Program	\$13,476	\$0	\$0	\$0	\$0
Bicycle Rally	\$935	\$0	\$0	\$0	\$0
Grand Terrace					
Senior Transportation Program	\$5,000	\$0	\$0	\$0	\$10,000
Hawaiian Gardens					
Gateway Cities Strategic Transportation Plan (STP)	\$6,500	\$0	\$0	\$0	\$0
Hawthorne					
Financial Incentives for rideshare	\$2,630	\$0	\$0	\$0	\$0
PM10 Reduction Street Sweeping Project	\$100,000	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Hemet					
Particulate Trap for (1) Constr. Backhoe 1 of 2	\$17,646	\$0	\$0	\$0	\$0
Particulate Trap for (1) Constr. Backhoe 2 of 2	\$17,646	\$0	\$0	\$0	\$0
Purchase (1) 2017 Freightliner CNG Dump Truck 114SD	\$30,000	\$0	\$0	\$0	\$159,959
WRCOG Clean Cities Coalition	\$4,150	\$0	\$0	\$0	\$0
Hermosa Beach					
AQMD Incentives to reduce auto trips	\$6,525	\$0	\$0	\$0	\$0
Hidden Hills					
	\$0	\$0	\$0	\$0	\$0
Highland					
Class II Bike Lane Installation	\$317,023	\$317,023	\$0	\$0	\$0
Traffic Signal Synchronization	\$13,620	\$0	\$0	\$0	\$0
Huntington Beach					
4th of July/US Surf Open Shuttle	\$21,501	\$0	\$0	\$0	\$0
Employee Rideshare Activities	\$19,838	\$0	\$0	\$0	\$0
Peak Time Traffic Volume Monitoring	\$4,550	\$0	\$0	\$0	\$0
Rule 2202 Filing	\$1,057	\$0	\$0	\$0	\$0
Traffic Management Software Update	\$8,500	\$0	\$0	\$0	\$0
Huntington Park					
Electric Fiat 500 E leased Vehicle	\$5,766	\$0	\$0	\$0	\$0
Purchased Gator Electric Vehicle	\$10,144	\$0	\$0	\$0	\$0
Toyota Hybrid Leased Vehicle	\$21,945	\$0	\$0	\$0	\$0
Traffic Calming Activities - Pacific Blvd	\$341,699	\$0	\$0	\$0	\$0
Indian Wells					
Regional PM10 Street Sweeping Program	\$4,932	\$0	\$0	\$0	\$0
Indio					
Audit Expenses	\$2,006	\$0	\$0	\$0	\$0
EV Infrastructure	\$782	\$0	\$0	\$0	\$50,000
Regional PM 10 Street Sweeping Program	\$84,337	\$0	\$0	\$0	\$0
Inglewood					
Rule 2202 MSERC's Purchase Credits	\$12,209	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Irvine					
CNG Vehicles Conversion	\$197,840	\$0	\$0	\$0	\$0
Implementing Lights at San Diego Creek Trail	\$197,715	\$0	\$0	\$0	\$0
Irvine Spectrum TMA	\$3,756	\$0	\$0	\$0	\$0
Purchase Rule 2202 Credit	\$7,794	\$0	\$0	\$0	\$0
Security Service Provided by Irvine PS at Train Station	\$173,166	\$0	\$0	\$0	\$0
Irwindale					
Left Turn Phasing on Peck Rd & Longden	\$3,523	\$0	\$0	\$0	\$0
Jurupa Valley					
Contract Street Weeping	\$57,120	\$0	\$0	\$0	\$0
Infrastructure-Refueling (Compressed Natural Gas)	\$16,176	\$0	\$0	\$0	\$0
Purchase Hybrid Vehicle	\$48,281	\$0	\$0	\$0	\$0
La Canada Flintridge					
Electric Vehicle Charging Station	\$2,573	\$0	\$0	\$0	\$0
Hybrid Gas/Electric Vehicle Purchase	\$36,209	\$0	\$0	\$0	\$0
La Habra					
Shuttles to transport seniors	\$89,452	\$0	\$0	\$0	\$76,849
La Habra Heights					
	\$0	\$0	\$0	\$0	\$0
La Mirada					
Purchase 6 Ford Fusion S Hybrid 2.0 L IVCT 14HEV	\$144,889	\$0	\$0	\$0	\$0
La Palma					
	\$0	\$0	\$0	\$0	\$0
La Puente					
Purchase 1 2016 Toyota Rav4 XLE Hybrid	\$33,224	\$0	\$0	\$0	\$0
Purchase 1 2017 GEM ELXD Electric Cart	\$19,997	\$0	\$0	\$0	\$0
La Quinta					
Regional PM 10 Street Sweeping Program	\$38,288	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
La Verne					
Bike, Carpool, Walk, Incentive Program	\$12,205	\$0	\$0	\$0	\$0
Street Sweeper	\$65,000	\$0	\$0	\$0	\$0
Laguna Beach					
Free Main Line Service During Summer	\$26,410	\$0	\$0	\$0	\$0
Free Ride to Work Bus Pass Program	\$2,100	\$0	\$0	\$0	\$0
Laguna Hills					
	\$0	\$0	\$0	\$0	\$0
Laguna Niguel					
Traffic Signal Coordination	\$17,171	\$0	\$0	\$0	\$0
Laguna Woods					
	\$0	\$0	\$0	\$0	\$0
Lake Elsinore					
Citywide Dirt Road Paving Program	\$86,052	\$0	\$0	\$0	\$0
Clean Cities Coalition (WRCOG)	\$6,000	\$0	\$0	\$0	\$0
Lake Forest					
Alton Parkway Traffic Signal Synchronization	\$2,490	\$0	\$0	\$0	\$0
Bake Parkway Traffic Signal Synchronization Project	\$1,217	\$0	\$0	\$0	\$0
Barranca/Muirlands Traffic Signal Synchronization	\$4,434	\$0	\$0	\$0	\$0
Prof Serv-Traffic Engineer for Traffic Signal Monitoring	\$32,733	\$0	\$0	\$0	\$0
Signal Maintenance Centracs Software	\$6,922	\$0	\$0	\$0	\$0
Traffic Signal System Communications Enhancements	\$19,682	\$0	\$0	\$0	\$0
Lakewood					
91/605/405 COG Major Corridor Study	\$10,000	\$0	\$0	\$0	\$0
CNG Fuel Tank Upgrades	\$21,989	\$0	\$0	\$0	\$0
Lawndale					
Hybrid Vehicles	\$30,000	\$0	\$0	\$0	\$0
Loma Linda					
City Street Sweeping	\$19,200	\$0	\$0	\$0	\$0
Signal Coordination	\$27,110	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Lomita					
Installation of electric charging stations	\$17,657	\$0	\$0	\$0	\$0
Lease of Electric Golf to replace gas vehicle	\$3,220	\$0	\$0	\$0	\$0
Leasing alternative fuel street sweepers	\$15,000	\$0	\$0	\$0	\$0
Online Submittal System	\$5,000	\$0	\$0	\$0	\$0
Long Beach					
2016 Active Transportation Public Education Event	\$82,318	\$0	\$0	\$0	\$0
6th Street Traffic Calming	\$68,005	\$0	\$0	\$0	\$0
Bicycle - Fix It Stations	\$2,410	\$0	\$0	\$0	\$0
Bike Buoys	\$61,406	\$0	\$0	\$0	\$0
Bike Share Marketing	\$3	\$0	\$0	\$0	\$0
Bike Share Program	\$20,177	\$0	\$0	\$0	\$0
Class I Bicycle Path Gap Closure - Pier J Project	\$4,853	\$0	\$0	\$0	\$0
Class I Willow Bike Path to San Gabriel River	\$2,644	\$0	\$0	\$0	\$0
Class II Bike Lanes to LA River	\$92,174	\$0	\$0	\$0	\$0
Develop Gateway COG Transportation Plan	\$17,500	\$0	\$0	\$0	\$0
Protected Bike Lanes on 3rd and Broadway	\$38,180	\$0	\$0	\$0	\$0
Purchase of medium duty electric car	\$287,977	\$381,000	\$0	\$0	\$2,337,406
Rule 2202 Emissions Credit Purchase	\$35,353	\$0	\$0	\$0	\$0
Los Alamitos					
	\$0	\$0	\$0	\$0	\$0
Los Angeles (City)					
#1 Alt Fuel Purch-CNG Solid Waste Collection Vehicles	\$346,313	\$0	\$0	\$0	\$3,138,375
#2 Alt Fuel Purch-14 Peterbilt 365 Hvy-Haul Truck Tractors	\$346,313	\$0	\$0	\$0	\$3,362,525
Air Quality Education/Outreach Improvement Strategies	\$151,059	\$0	\$0	\$0	\$300,000
Alternative Commute/EV Car Sharing Program Development	\$112,253	\$0	\$0	\$0	\$9,600,000
Annual Audit	\$13,842	\$0	\$0	\$0	\$0
Bicycle Transit Incentive Program	\$8,786	\$0	\$0	\$0	\$0
Bike Repair Stations and Bicycle Parking	\$117,764	\$0	\$0	\$0	\$590,613
BOE Alt Fuel Infrastructure Eng Design & Tech Support	\$230,050	\$0	\$0	\$0	\$19,936
Employee Vanpool Program	\$260,917	\$0	\$0	\$0	\$602,435
Employer' Carpool Program	\$48,399	\$0	\$0	\$0	\$0
Employer's Rail and Bus Transit Incentive Program	\$225,970	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Los Angeles (City) (cont'd)					
Employer's Walk Incentive Program	\$8,786	\$0	\$0	\$0	\$0
EV Car Charging Stations at Citywide Locations	\$123,265	\$0	\$0	\$0	\$1,402,128
Green Taxi Program Development	\$105,960	\$0	\$0	\$0	\$0
Land Use	\$270,000	\$0	\$0	\$0	\$0
Scope of Work for Integrated Mobility Hubs	\$110,000	\$0	\$0	\$0	\$0
Seg 2 Westwood Bl from Pico Bl to Lindbrook Dr	\$64,831	\$0	\$0	\$0	\$69,343
Seg 3 Wilshire Bl from Beverly Glen Bl to Westwood Bl	\$44,572	\$0	\$0	\$0	\$47,673
Seg 4 Reseda Bl from San Fern Mission Bl to Parthenia St	\$121,559	\$0	\$0	\$0	\$130,017
Seg 5 Nordhoff St from Woodley Av to Tampa Av	\$158,027	\$0	\$0	\$0	\$169,023
Seg 6 Adams Bl from Figueroa St to Normandie Av	\$60,780	\$0	\$0	\$0	\$65,009
Seg 7 Vermont Bl from Imperial Hwy to 190th St	\$190,443	\$0	\$0	\$0	\$203,694
Seg 8 Vermont Av from Wilshire Bl to MLK Jr Bl	\$145,871	\$0	\$0	\$0	\$156,021
Seg 9 Whitsett Av from Chandler Bl to Oxnard Av	\$32,416	\$0	\$0	\$0	\$34,671
Seg1 Figueroa St between Imperial Hwy and 190th St	\$190,443	\$0	\$0	\$0	\$203,694
Seg10 Magnolia Bl from Leghorn Av to Bluebell Av	\$12,156	\$0	\$0	\$0	\$13,002
Traffic Calming	\$270,000	\$0	\$0	\$0	\$252,100
Trip Reduction Programs	\$160,296	\$0	\$0	\$0	\$0
Lynwood					
Charging Stations	\$21,896	\$0	\$0	\$0	\$0
Purchase of 6 Electric Vehicles (Nissan Leafs)	\$178,333	\$0	\$0	\$0	\$0
Malibu					
	\$0	\$0	\$0	\$0	\$0
Manhattan Beach					
Rideshare Program	\$11,880	\$0	\$0	\$0	\$0
Maywood					
Installation of a Charging Station for Electric Vehicles	\$33,559	\$0	\$0	\$0	\$0
Purchase of 4 New Electric Vehicles	\$97,688	\$0	\$0	\$0	\$0
Meniffee					
Alternative Fuel Vehicle Purchase	\$113,658	\$0	\$0	\$0	\$0
Mission Viejo					
City of Mission Viejo Traffic Signal Synchronization	\$4,738	\$0	\$0	\$0	\$0
City of Mission Viejo Air Quality Planning: FY16-17	\$36,488	\$0	\$0	\$0	\$0
Mission Viejo (MV) Shuttle: FY16-17	\$105,289	\$0	\$0	\$0	\$5,937

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Monrovia					
Monrovia Employee Ride Share	\$3,600	\$0	\$0	\$0	\$0
Monrovia Public Transportation Subsidy Program	\$9,732	\$0	\$0	\$0	\$0
Montclair					
Rideshare Program	\$25,776	\$0	\$0	\$0	\$0
Montebello					
Employee Commute Reduction Program	\$30,446	\$0	\$0	\$0	\$0
Monterey Park					
CNG Station Compression Services Tariff (CST) Agreement	\$71,200	\$0	\$0	\$0	\$104,228
Employee Transportation Program	\$25,000	\$0	\$0	\$0	\$0
Moreno Valley					
Street Sweeping Program	\$165,393	\$0	\$0	\$0	\$0
Traffic Signal Coordination Program	\$250	\$0	\$0	\$0	\$0
WRCOG - Clean Cities Coalition	\$15,000	\$0	\$0	\$0	\$0
Murrieta					
Purchase and install of electric charging station	\$13,917	\$0	\$0	\$0	\$7,500
Newport Beach					
Electric Vehicle Charging Stations	\$36,650	\$0	\$0	\$0	\$0
Employee Rideshare Program	\$8,989	\$0	\$0	\$0	\$0
Norco					
One 2017 Hybrid Nissan Rogue	\$24,953	\$0	\$0	\$0	\$0
One 2017 Hybrid Nissan Rogue	\$24,954	\$0	\$0	\$0	\$0
Norwalk					
Ab 2766 Audit Expenses	\$2,664	\$0	\$0	\$0	\$0
Cleaner Street Sweeping Contract	\$87,564	\$0	\$0	\$0	\$620,836
Transit Subsidy	\$26,000	\$0	\$0	\$0	\$0
Ontario					
Compressed Natural Gas - Slow Fill Posts	\$14,236	\$0	\$0	\$0	\$0
Electric Vehicle Charging Station	\$148,909	\$0	\$0	\$0	\$0
Purchase Emission Reduction Credits	\$15,334	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Orange (City)					
Bike Loan to Own Program	\$2,105	\$0	\$0	\$0	\$0
Community Services Electric Vehicle Initiative	\$17,074	\$0	\$0	\$0	\$0
Electric Car Charging Stations	\$2,541	\$0	\$0	\$0	\$0
Orange Police Bike Team	\$6,461	\$0	\$0	\$0	\$0
Trip Reduction Program	\$108,652	\$0	\$0	\$0	\$0
Palm Desert					
City Rideshare Program	\$1,576	\$0	\$0	\$0	\$0
Electric Vehicle DC Fast Charger Project	\$4,480	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$47,250	\$0	\$0	\$0	\$0
Palm Springs					
Regional PM10 Street Sweeping Program	\$44,683	\$0	\$0	\$0	\$0
Palos Verdes Estates					
	\$0	\$0	\$0	\$0	\$0
Paramount					
	\$0	\$0	\$0	\$0	\$0
Pasadena					
Prideshare	\$151,630	\$0	\$0	\$0	\$0
Perris					
Purchase of 2017 Toyota Highlander Hybrid	\$110,308	\$0	\$0	\$0	\$0
Pico Rivera					
Development of Strategic Transportation Plans	\$10,600	\$0	\$0	\$0	\$0
Lease payments of (6) Hybrid Vehicles (2014 Toyota Prius C)	\$15,410	\$0	\$0	\$0	\$0
Placentia					
Kraemer Blvd Signal Sync.	\$3,751	\$0	\$0	\$0	\$0
Purchase of 10 Chevy Spark electric vehicles	\$50,620	\$0	\$0	\$0	\$0
Pomona					
Purchase of Emission Credits	\$8,680	\$0	\$0	\$0	\$0
Traffic Operations Communication Upgrade	\$69,050	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Rancho Cucamonga					
Employer Ride Share Program	\$16,574	\$0	\$0	\$0	\$0
Freeway and Arterial Signal Synchronization Project	\$12,000	\$0	\$0	\$0	\$0
Southwest Cucamonga Class I Bicycle Lanes Project	\$9,802	\$0	\$0	\$0	\$0
Rancho Mirage					
Regional PM10 Street Sweeping Program	\$17,306	\$0	\$0	\$0	\$0
Rancho Palos Verdes					
2017 Toyota Prius for CDD	\$22,708	\$0	\$0	\$0	\$0
Palos Verdes Peninsular Transit Authority Jt Powers Authority	\$54,963	\$0	\$0	\$0	\$0
Rancho Santa Margarita					
Antonio Parkway Signal & Equipment Upgrade	\$6,141	\$0	\$0	\$0	\$0
Install Speed Feedback Signs (3 Locations)	\$18,030	\$0	\$0	\$0	\$0
Santa Margarita Pkway Signal & Equipment Upgrade	\$1,273	\$0	\$0	\$0	\$0
Redlands					
Installation of Class II Bike Lanes	\$83,040	\$75,156	\$0	\$0	\$0
Partially fund 1 CNG Passenger Bus	\$56,960	\$0	\$0	\$0	\$35,604
Redondo Beach					
Employee Rideshare	\$59,854	\$0	\$0	\$0	\$0
Rialto					
Employee Rideshare Program	\$65,929	\$0	\$0	\$0	\$0
EV Charging stations at Riverside/Easton	\$16,389	\$0	\$0	\$0	\$0
Riverside (City)					
AQMD Rule 2202 Compliance	\$23,472	\$0	\$0	\$0	\$0
Bicycle Racks	\$2,319	\$0	\$0	\$0	\$0
City Pass Program	\$14,130	\$0	\$0	\$0	\$0
Clean Cities Coalition	\$25,000	\$0	\$0	\$0	\$0
Electric Vehicle Rebate Program	\$4,500	\$0	\$0	\$0	\$0
Employee Rideshare Program	\$1,200	\$0	\$0	\$0	\$0
ProjectDox	\$69,251	\$0	\$0	\$0	\$0
Riverside Go Transit Bus Pass Subsidy Program	\$72,880	\$0	\$0	\$0	\$0
Riverside Traffic Management Center	\$30,353	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Rolling Hills Estates					
	\$0	\$0	\$0	\$0	\$0
Rosemead					
	\$0	\$0	\$0	\$0	\$0
San Bernardino (City)					
Rideshare Program	\$21,876	\$0	\$0	\$0	\$0
San Clemente					
Downtown Bicycle Racks	\$39,865	\$0	\$0	\$0	\$0
Marblehead Coastal Sidewalk Improvements	\$100,000	\$0	\$0	\$0	\$0
San Clemente Summer Trolley	\$93,053	\$0	\$0	\$0	\$494,228
San Dimas					
	\$0	\$0	\$0	\$0	\$0
San Fernando					
CNG Ford F-250 Utility Truck Purchase	\$96,170	\$0	\$0	\$0	\$0
San Gabriel					
	\$0	\$0	\$0	\$0	\$0
San Jacinto					
Electric Golf Cart Purchase for Water Department	\$2,592	\$0	\$0	\$0	\$0
Purchase of Tier 4 Skip loader	\$105,458	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0
San Juan Capistrano					
Countdown Pedestrian Signals Project	\$6,797	\$0	\$0	\$0	\$0
Neighborhood Traffic Calming Project	\$5,883	\$0	\$0	\$0	\$0
Regional Traffic Synchronization Program	\$28,414	\$0	\$0	\$0	\$0
Sr Nutritional Transportation Program	\$10,195	\$0	\$0	\$0	\$55,938
Trolley Program	\$15,600	\$0	\$0	\$0	\$33,050
San Marino					
	\$0	\$0	\$0	\$0	\$0
Santa Ana					
Blue Skies Ride share Program	\$133,996	\$0	\$0	\$0	\$0
Electric Vehicle Lease (2)	\$12,525	\$0	\$0	\$0	\$0
General Plan Circulation Element	\$3,265	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Santa Ana (cont'd)					
General Plan Land Use Designations	\$29,277	\$0	\$0	\$0	\$0
Metro East Mixed Use Overlay Plan	\$7,383	\$0	\$0	\$0	\$0
TOD Parking Guidelines	\$230	\$0	\$0	\$0	\$0
Santa Clarita					
Bike to work	\$2,809	\$0	\$0	\$0	\$0
Electric Vehicle Charging Station (R4004)	\$6,600	\$0	\$0	\$0	\$21,908
Green Guide	\$300	\$0	\$0	\$0	\$0
ITS Phase IV (I0009)	\$323,128	\$0	\$0	\$0	\$2,155,007
Promotion and Advertising	\$5,051	\$0	\$0	\$0	\$0
Rideshare	\$2,335	\$0	\$0	\$0	\$0
Vista Canyon Regional Transit Center (T3021)	\$67,435	\$0	\$0	\$0	\$150,097
Santa Fe Springs					
	\$0	\$0	\$0	\$0	\$0
Santa Monica					
Installation of EV Infrastructure	\$66,505	\$0	\$0	\$0	\$0
Purchase of (10) 2017 Nissan Leafs	\$54,875	\$0	\$0	\$0	\$221,707
Purchase of (5) Ford Focus Evs	\$10,950	\$0	\$0	\$0	\$130,534
Sponsorship of AltCar Expo	\$10,000	\$0	\$0	\$0	\$0
Seal Beach					
Senior Transportation Nutrition Shuttle	\$32,585	\$0	\$0	\$0	\$66,790
Sierra Madre					
	\$0	\$0	\$0	\$0	\$0
Signal Hill					
FY 16-17 I-710 Corridor EIR/ EIS	\$1,000	\$0	\$0	\$0	\$0
South El Monte					
Bus Pass Subsidy Program	\$6,646	\$0	\$0	\$0	\$0
Fuel Efficient Vehicle Purchase Program	\$82,218	\$0	\$0	\$0	\$0
South Gate					
Employee Rideshare Program	\$2,486	\$0	\$0	\$0	\$0
Purchase (1) John Deere Electric Gator Utility Vehicle	\$10,873	\$0	\$0	\$0	\$0
Purchase (1) Smithco Super Star Electric Utility Bunker Rack	\$18,846	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
South Pasadena					
Ford F250 Reg Cab CNG Svc Truck	\$40,231	\$0	\$0	\$0	\$0
Stanton					
Commute Incentive Program	\$380	\$0	\$0	\$0	\$0
Electric Charging Stations	\$22,113	\$0	\$0	\$0	\$0
Replacement of bus Shelters	\$54,945	\$0	\$0	\$0	\$0
Temecula					
Construct Park and Ride near Temecula Pkwy	\$232,112	\$0	\$0	\$0	\$0
Route 55 RTA Transit New Services	\$19,455	\$0	\$0	\$0	\$0
WRCOG Clean Cities California	\$10,000	\$0	\$0	\$0	\$0
Temple City					
Lease of Alternative Fuel Vehicles	\$20,020	\$0	\$0	\$0	\$0
Torrance					
Employee Rideshare	\$152,579	\$0	\$0	\$0	\$0
Tustin					
	\$0	\$0	\$0	\$0	\$0
Upland					
Rideshare Activities	\$13,128	\$0	\$0	\$0	\$0
Vehicle Purchase	\$49,075	\$0	\$0	\$0	\$0
Vehicle Purchase	\$32,531	\$0	\$0	\$0	\$0
Villa Park					
	\$0	\$0	\$0	\$0	\$0
Walnut					
Bus Pass Subsidies	\$8,093	\$0	\$0	\$0	\$0
Street Sweeping with CNG Sweeper	\$50,860	\$0	\$0	\$0	\$0
West Covina					
2 "Zero" Electric Motorcycles	\$36,745	\$0	\$0	\$0	\$0
Air Quality Investment Program (AQIP)	\$6,127	\$0	\$0	\$0	\$0
AQMD 2766 Annual Audit Fee	\$1,500	\$0	\$0	\$0	\$0
CNG Fuel Station	\$32,740	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
West Hollywood					
Alternative Transportation Mode Incentive	\$30,584	\$0	\$0	\$0	\$0
Bike Light Giveaway Events (2)	\$2,037	\$0	\$0	\$0	\$0
Bike Rack Installation	\$8,308	\$0	\$0	\$0	\$0
Citywide Bike Share Program	\$10,380	\$0	\$0	\$0	\$276,533
Westlake Village					
Bike purchase for Animal Control patrol	\$550	\$0	\$0	\$0	\$0
Lease of one Toyota Rav4 hybrid electric vehicle	\$1,919	\$0	\$0	\$0	\$0
Westminster					
Electrical charging stations	\$93,925	\$93,925	\$0	\$0	\$0
Employee Rideshare Program	\$9,169	\$0	\$0	\$0	\$0
Employee Vanpool Program	\$8,221	\$0	\$0	\$0	\$0
Project V - Pilot Shuttle Program	\$16,003	\$0	\$0	\$0	\$0
Whittier					
Dev. Gateway COG Strategic Transportation Plan	\$15,497	\$0	\$0	\$0	\$0
Employee-Based Trip Reduction	\$7,097	\$0	\$0	\$0	\$0
Rule 2202 Compliance - Emission Credits Purchased	\$12,600	\$0	\$0	\$0	\$0
Rule 2202 Filing Fees	\$555	\$0	\$0	\$0	\$0
Wildomar					
	\$0	\$0	\$0	\$0	\$0
Yorba Linda					
Bike Lane Enhancement Program	\$8,500	\$8,500	\$0	\$0	\$0
Purchase (1) Electric Vehicle in Replacement Program	\$10,641	\$0	\$0	\$0	\$0
Yucaipa					
Class II Bike Lane Construction Activities	\$43,511	\$0	\$0	\$0	\$0
Class II Bike Lane Construction Activities - Yucaipa Blvd.	\$141,122	\$0	\$0	\$0	\$0
Totals	\$17,655,513	\$1,060,854	\$0	\$0	\$38,406,633

Range of Cost-Effectiveness by Subcategory for Fiscal Year 2016 - 2017

	Lowest (ROG + NOx + PM2.5)	Highest	Lowest (ROG + NOx + PM2.5 + CO/7)	Highest
(1a) Alternative Fuel Vehicle Purchases	\$1.23	\$92,556.76	\$1.21	\$22,790.36
(1b) Alternative Fuel Vehicle Conversions	\$244,961.93	\$244,961.93	\$60,317.26	\$60,317.26
(1d) Electric Vehicle Purchases	\$11.04	\$134,148.03	\$5.86	\$38,555.61
(2a) Off Road Vehicle Cleaner Diesel Purchases, Repowers, & Retrofits	\$160.22	\$220.42	\$160.22	\$220.42
(4c) Transit Operations (new service, shuttles, fuel subsidies)	\$32.27	\$6,116.43	\$20.19	\$14,658.70
(4d) Passenger Fare Subsidies	\$10.58	\$1,169.82	\$6.61	\$726.79
(5a) Traffic Calming	\$44.25	\$44.25	\$42.32	\$42.32
(5b) Traffic Flow or Signalization (timing, surveillance)	\$0.41	\$479.33	\$0.34	\$419.41
(6a) Employer-Based Trip Reduction	\$1.75	\$885.62	\$1.08	\$550.21
(6b) Other Trip Reduction Incentive Programs	\$12.14	\$949.32	\$7.56	\$589.79
(6c) Vanpool Programs	\$38.10	\$1,097.66	\$32.68	\$1,019.06
(8a) Bicycle Lanes and Trails (also bridges)	\$8.27	\$20,254.57	\$5.20	\$12,721.93
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)	\$51.48	\$1,206.10	\$32.23	\$431.31
(9a) Road Dust Control (paving roads, shoulders, street	\$1.37	\$200.21	\$1.37	\$200.19
(11a) Miscellaneous (use with "Miscellaneous Projects")	\$16.44	\$2,184.52	\$11.59	\$1,342.46

Cost-effectiveness is based on MV Fees + MSRC + Moyer funding.

Average Cost-Effectiveness by Project

Fiscal Year 2016-2017

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NO _x +PM _{2.5} +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)
(1) Alternative Fuels/Electric Vehicles					
(1a) Alternative Fuel Vehicle Purchases					
La Verne	Street Sweeper	\$65,000	\$7,620	2,475	\$3.08
Fontana	AFV Rebate Program	\$500	\$71	2	\$37.92
Fontana	AFV Rebate Program	\$1,500	\$214	6	\$37.92
San Jacinto	Purchase of Tier 4 Skiploader	\$105,458	\$12,363	229	\$53.88
Culver City	Purchase of 18 CNG Transit Buses	\$110,000	\$11,051	9,116	\$1.21
Los Angeles (City)	#1 Alt Fuel Purch-CNG Solid Waste Collection Vehicles	\$346,313	\$40,598	3,027	\$13.41
Los Angeles (City)	#2 Alt Fuel Purch-14 Peterbilt 365 Hvy-Haul Truck Tractors	\$346,313	\$40,598	3,007	\$13.50
Arcadia	Vehicle Replacement - Public Works Vehicle	\$91,876	\$13,088	79	\$166.72
Huntington Park	Toyota Hybrid Leased Vehicle	\$21,945	\$3,126	13	\$249.63
Calabasas	Continues Lease of City Fleet (1)	\$23,074	\$2,318	5	\$468.59
Norwalk	Cleaner Street Sweeping Contract	\$87,564	\$90,191	1,310	\$68.84
Temple City	Lease of Alternative Fuel Vehicles	\$20,020	\$2,852	4	\$813.32
Alhambra	Purchase (1) 2017 Ford Fusion	\$33,257	\$4,738	5	\$945.75
Alhambra	Purchase of one 2017 Chevrolet Volt	\$34,942	\$4,978	5	\$993.67
South Pasadena	Ford F250 Reg Cab CNG Svc Truck	\$40,231	\$5,731	4	\$1,360.50
Redlands	Partially fund 1 CNG Passenger Bus	\$56,960	\$6,677	7	\$903.38
Calabasas	Continued Lease of City Fleet (2)	\$3,103	\$312	0	\$1,659.68
Azusa	Alternative Fuel Vehicle Purchase	\$47,406	\$9,074	5	\$1,716.56
Pico Rivera	Lease payments of (6) Hybrid Vehicles (2014 Toyota Prius C)	\$15,410	\$5,448	3	\$1,728.98
Westlake Village	Lease of one Toyota Rav4 hybrid electric vehicle	\$1,919	\$273	0	\$1,964.78
La Puente	Purchase 1 2016 Toyota Rav4 XLE Hybrid	\$33,224	\$3,895	2	\$2,073.35
Azusa	Alternative Fuel Street Sweeper Lease(s)	\$21,151	\$2,480	2	\$1,583.29
Upland	Vehicle Purchase	\$32,531	\$4,634	2	\$2,466.94
Garden Grove	Alternative Fuel Vehicle Rebate Program	\$21,304	\$21,943	9	\$2,519.25
Santa Monica	Purchase of (5) Ford Focus Evs	\$10,950	\$1,284	6	\$219.76
Cudahy	Hybrid Vehicle Lease	\$10,388	\$1,480	1	\$2,954.10
Baldwin Park	Hybrid Toyota Purchase	\$45,450	\$6,475	2	\$3,062.77
Downey	Purchase Replacement Vehicles	\$84,809	\$12,082	4	\$3,111.95
Jurupa Valley	Purchase Hybrid Vehicle	\$48,281	\$5,660	2	\$3,228.19

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(1a) Alternative Fuel Vehicle Purchases (cont'd)						
Upland	Vehicle Purchase	\$49,075	\$6,991	2	\$3,721.55	
La Mirada	Purchase 6 Ford Fusion S Hybrid 2.0 L IVCT 14HEV	\$144,889	\$20,640	5	\$4,578.10	
Lawndale	Hybrid Vehicles	\$30,000	\$4,274	1	\$4,875.02	
Aliso Viejo	3 alternative fuel vehicles	\$92,929	\$10,894	2	\$4,933.85	
Perris	Purchase of 2017 Toyota Highlander Hybrid	\$110,308	\$15,714	3	\$5,455.48	
Arcadia	Vehicle Replacement - Passenger Car	\$34,415	\$4,035	1	\$5,965.80	
Hemet	Purchase (1) 2017 Freightliner CNG Dump Truck 114SD	\$30,000	\$3,517	4	\$973.89	
County of Orange	Plug-in Hybrids for Motor Pool Green Fleet Plan	\$309,112	\$36,237	6	\$6,430.06	
Norco	One 2017 Hybrid Nissan Rogue	\$24,954	\$4,005	1	\$6,464.89	
Baldwin Park	Hybrid Ford Purchase	\$82,463	\$11,747	2	\$6,583.53	
Norco	One 2017 Hybrid Nissan Rogue	\$24,953	\$4,005	0	\$8,354.37	
Rancho Palos Verdes	2017 Toyota Prius for CDD	\$22,708	\$3,235	0	\$11,485.30	
La Canada Flintridge	Hybrid Gas/Electric Vehicle Purchase	\$36,209	\$4,245	0	\$12,105.09	
Fullerton	Lease of Pool Cars	\$14,536	\$14,973	1	\$12,110.49	
Calimesa	Alternative Fuel Vehicles	\$18,550	\$1,864	0	\$5,952.19	
San Fernando	CNG Ford F-250 Utility Truck Purchase	\$96,170	\$13,700	1	\$22,790.36	
Santa Monica	Purchase of (10) 2017 Nissan Leafs	\$54,875	\$6,433	1	\$10,907.67	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$2,937,025	\$487,763	19,360	\$25.19
(1b) Alternative Fuel Vehicle Conversions						
Irvine	CNG Vehicles Conversion	\$197,840	\$28,184	0	\$60,317.26	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$197,840	\$28,184	0	\$60,317.26
(1d) Electric Vehicle Purchases						
Riverside (City)	Electric Vehicle Rebate Program	\$4,500	\$528	90	\$5.86	
County of Orange	Electric forklift Replacement Program, Purchase-One Unit	\$33,320	\$3,906	354	\$11.04	
County of Orange	Electric Forklift Replacement Program, Purchase 1 Unit	\$42,570	\$4,991	322	\$15.48	
Huntington Park	Electric Fiat 500 E leased Vehicle	\$5,766	\$676	22	\$30.37	
San Jacinto	Electric Golf Cart Purchase for Water Department	\$2,592	\$304	8	\$38.05	
Huntington Park	Purchased Gator Electric Vehicle	\$10,144	\$1,445	19	\$74.98	
Lomita	Lease of Electric Golf to replace gas vehicle	\$3,220	\$377	4	\$88.48	
Orange (City)	Community Services Electric Vehicle Initiative	\$17,074	\$2,002	19	\$108.10	
Placentia	Purchase of 10 Chevy Spark electric vehicles	\$50,620	\$5,934	51	\$116.35	

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(1d) Electric Vehicle Purchases (cont'd)						
Yorba Linda	Purchase (1) Electric Vehicle in Replacement Program	\$10,641	\$1,247	2	\$672.62	
South Gate	Purchase (1) John Deere Electric Gator Utility Vehicle	\$10,873	\$11,199	14	\$786.34	
Santa Ana	Electric Vehicle Lease (2)	\$12,525	\$12,901	8	\$1,531.68	
Coachella	Electric Vehicle Purchase	\$21,392	\$2,508	1	\$1,690.23	
La Puente	Purchase 1 2017 GEM ELXD Electric Cart	\$19,997	\$2,344	1	\$2,526.69	
South Gate	Purchase (1) Smithco Super Star Electric Utility Bunker Rack	\$18,846	\$19,411	6	\$3,042.01	
Maywood	Purchase of 4 New Electric Vehicles	\$97,688	\$11,452	2	\$4,677.90	
Long Beach	Purchase of medium duty electric car	\$287,977	\$78,425	64	\$1,226.75	
Aliso Viejo	1 electric vehicle	\$15,893	\$2,264	0	\$6,088.60	
Lynwood	Purchase of 6 Electric Vehicles (Nissan Leafs)	\$178,333	\$20,906	1	\$23,631.85	
Brea	Police Electric Vehicle for Trail Patrol	\$20,768	\$2,435	0	\$26,254.49	
Brea	Public Works Electric Vehicle for Trail Maintenance	\$17,794	\$1,788	0	\$38,555.61	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$882,532	\$187,042	991	\$188.82
		Category Summary	\$4,017,397	\$702,988	20,351	\$34.54
(2) Vehicle Emissions Abatement						
(2a) Off Road Vehicle Cleaner Diesel Purchases, Repowers, & Retrofits						
Hemet	Particulate Trap for (1) Constr. Backhoe 2 of 2	\$17,646	\$2,069	13	\$160.22	
Hemet	Particulate Trap for (1) Constr. Backhoe 1 of 2	\$17,646	\$2,069	9	\$220.42	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$35,292	\$4,137	22	\$185.56
		Category Summary	\$35,292	\$4,137	22	\$185.56
(4) Public Transportation (Transit & Rail)						
(4c) Transit Operations (new service, shuttles, fuel subsidies)						
Rancho Palos Verdes	Palos Verdes Peninsula Transit Authority Jt Powers Authority	\$54,963	\$56,612	2,803	\$20.19	
Temecula	Route 55 RTA Transit New Services	\$19,455	\$4,248	51	\$83.85	
Grand Terrace	Senior Transportation Program	\$5,000	\$5,150	24	\$217.02	
San Clemente	San Clemente Summer Trolley	\$93,053	\$95,845	408	\$234.85	
Huntington Beach	4th of July/US Surf Open Shuttle	\$21,501	\$22,146	11	\$2,097.87	
Anaheim	ART Shuttle - Route 17	\$30,203	\$31,110	12	\$2,552.67	
Seal Beach	Senior Transportation Nutrition Shuttle	\$32,585	\$33,563	26	\$1,299.67	
San Juan Capistrano	Trolley Program	\$15,600	\$16,067	7	\$2,316.31	

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(4) Public Transportation (Transit & Rail)						
(4c) Transit Operations (new service, shuttles, fuel subsidies) (cont'd)						
La Habra	Shuttles to transport seniors	\$89,452	\$92,136	18	\$5,199.66	
Mission Viejo	Mission Viejo (MV) Shuttle: FY16-17	\$105,289	\$108,448	7	\$14,658.70	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$467,101	\$465,323	3,366	\$138.22
(4d) Passenger Fare Subsidies						
Riverside (City)	Riverside Go Transit Bus Pass Subsidy Program	\$72,880	\$75,066	11,350	\$6.61	
South El Monte	Bus Pass Subsidy Program	\$6,646	\$6,845	302	\$22.64	
Walnut	Bus Pass Subsidies	\$8,093	\$8,336	179	\$46.63	
Garden Grove	Transit Subsidy (Metrolink & Bus)	\$4,992	\$5,142	98	\$52.57	
Riverside (City)	City Pass Program	\$14,130	\$14,554	255	\$57.18	
Azusa	Transit Pass Subsidy	\$8,427	\$8,680	89	\$97.24	
Corona	Corona Cruiser Fare Subsidy	\$23,345	\$24,045	237	\$101.53	
Glendale	Transit Fare Subsidy	\$60,000	\$61,800	556	\$111.25	
Laguna Beach	Free Main Line Service During Summer	\$26,410	\$27,202	230	\$118.13	
Laguna Beach	Free Ride to Work Bus Pass Program	\$2,100	\$2,163	16	\$132.74	
Anaheim	METROLINK & OCTA Transit Subsidies	\$111,491	\$114,836	950	\$120.93	
Norwalk	Transit Subsidy	\$26,000	\$26,780	152	\$175.97	
Covina	Commuter Choice Reimbursement Program	\$1,046	\$1,077	5	\$205.23	
Burbank	Employee Transit Subsidies	\$24,703	\$25,444	108	\$235.04	
Monrovia	Monrovia Public Transportation Subsidy Program	\$9,732	\$10,024	24	\$409.97	
Compton	Employee Transit Subsidies	\$39,534	\$40,720	56	\$726.79	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$439,529	\$452,715	14,607	\$30.99
		Category Summary	\$906,630	\$918,038	17,974	\$51.08
(5) Traffic Management						
(5a) Traffic Calming						
San Juan Capistrano	Neighborhood Traffic Calming Project	\$5,883	\$2,080	49	\$42.32	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$5,883	\$2,080	49	\$42.32
(5b) Traffic Flow or Signalization (timing, surveillance)						
Placentia	Kraemer Blvd Signal Sync.	\$3,751	\$819	2,412	\$0.34	
Lake Forest	Bake Parkway Traffic Signal Synchronization Project	\$1,217	\$1,254	3,033	\$0.41	
Lake Forest	Barranca/Muirlands Traffic Signal Synchronization	\$4,434	\$4,567	7,261	\$0.63	
Mission Viejo	City of Mission Viejo Traffic Signal Synchronization	\$4,738	\$1,675	2,002	\$0.84	

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(5b) Traffic Flow or Signalization (timing, surveillance) (cont'd)						
Costa Mesa	17th. St. Signal Synchronization Project	\$633	\$652	291	\$2.24	
Laguna Niguel	Traffic Signal Coordination	\$17,171	\$17,686	5,983	\$2.96	
Anaheim	Traffic Signal Synchronization	\$158,739	\$34,661	9,854	\$3.52	
Costa Mesa	Fairview Rd. Traffic Signal Synchronization Project	\$5,101	\$5,254	478	\$11.00	
Costa Mesa	Baker St./Placentia Ave. Traffic Signal Sync Project	\$11,461	\$11,805	929	\$12.71	
San Juan Capistrano	Regional Traffic Synchronization Program	\$28,414	\$29,266	1,783	\$16.41	
Irwindale	Left Turn Phasing on Peck Rd & Longden	\$3,523	\$3,629	214	\$16.99	
Highland	Traffic Signal Synchronization	\$13,620	\$14,029	282	\$49.75	
Riverside (City)	Riverside Traffic Management Center	\$30,353	\$6,628	110	\$60.52	
Los Angeles (City)	Seg 8 Vermont Av from Wilshire Bl to MLK Jr Bl	\$145,871	\$31,852	863	\$36.89	
Los Angeles (City)	Seg 9 Whittsett Av from Chandler Bl to Oxnard Av	\$32,416	\$7,078	82	\$86.36	
Los Angeles (City)	Seg 2 Westwood Bl from Pico Bl to Lindbrook Dr	\$64,831	\$14,156	150	\$94.57	
Los Angeles (City)	Seg 10 Magnolia Bl from Leghorn Av to Bluebell Av	\$12,156	\$2,654	26	\$103.46	
Artesia	Pre-Emption Replacement	\$17,397	\$3,799	17	\$224.08	
Santa Clarita	ITS Phase IV (I0009)	\$323,128	\$70,556	1,858	\$37.97	
Los Angeles (City)	Seg1 Figueroa St between Imperial Hwy and 190th St	\$190,443	\$41,584	266	\$156.39	
Costa Mesa	Sunflower Ave. & Anton Blvd. Signal Improvements	\$13,454	\$13,857	33	\$419.41	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$1,082,851	\$317,461	37,926	\$8.37
		Category Summary	\$1,088,734	\$319,541	37,975	\$8.41
(6) Transportation Demand Management						
(6a) Employer-Based Trip Reduction						
Bell Gardens	Employee Rideshare Subsidies	\$617	\$636	586	\$1.08	
Los Angeles (City)	Employer's Rail and Bus Transit Incentive Program	\$225,970	\$232,750	25,070	\$9.28	
Glendale	Employer Based Trip Reduction Program	\$89,187	\$91,863	8,911	\$10.31	
County of Orange	Employee Rideshare Program	\$35,000	\$36,050	17,185	\$2.10	
Los Angeles (City)	Employer' Carpool Program	\$48,399	\$49,851	3,969	\$12.56	
Riverside (City)	Employee Rideshare Program	\$1,200	\$1,236	89	\$13.95	
Baldwin Park	Employee Trip Reduction Incentive Programs	\$1,910	\$1,967	127	\$15.50	
County of LA	Employee Commute Reduction Program	\$680,485	\$700,900	44,680	\$15.69	
Los Angeles (City)	Employer's Walk Incentive Program	\$8,786	\$9,049	540	\$16.75	
County of Riverside	Commuter Services Rideshare Program	\$197,712	\$203,643	11,875	\$17.15	
Los Angeles (City)	Bicycle Transit Incentive Program	\$8,786	\$9,049	389	\$23.24	

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)
(6) Transportation Demand Management					
(6a) Employer-Based Trip Reduction (cont'd)					
Anaheim	Trip Reduction Program	\$74,473	\$76,707	3,447	\$22.25
Santa Clarita	Rideshare	\$2,335	\$2,405	90	\$26.66
Westminster	Employee Rideshare Program	\$9,169	\$9,444	294	\$32.08
Fontana	Rideshare Activities	\$11,981	\$12,340	377	\$32.70
County of San Bernardino	Employee Commute Reduction Program	\$200,568	\$206,585	5,972	\$34.59
Monrovia	Monrovia Employee Ride Share	\$3,600	\$3,708	101	\$36.70
Torrance	Employee Rideshare	\$152,579	\$157,156	3,996	\$39.33
South Gate	Employee Rideshare Program	\$2,486	\$2,561	57	\$44.94
Commerce	Employer Based Trip Reduction	\$16,763	\$17,266	377	\$45.80
Newport Beach	Employee Rideshare Program	\$8,989	\$9,259	197	\$47.11
Pasadena	Prideshare	\$151,630	\$156,179	3,039	\$51.40
Huntington Beach	Employee Rideshare Activities	\$19,838	\$20,433	359	\$56.92
Montebello	Employee Commute Reduction Program	\$30,446	\$31,359	536	\$58.55
Redondo Beach	Employee Rideshare	\$59,854	\$61,650	967	\$63.75
Glendora	Altcom Program	\$13,476	\$13,881	214	\$64.96
Palm Desert	City Rideshare Program	\$1,576	\$1,623	24	\$67.78
Azusa	Rideshare Financial Incentives	\$10,314	\$10,623	157	\$67.80
Hawthorne	Financial Incentives for rideshare	\$2,630	\$2,709	33	\$81.50
Orange (City)	Trip Reduction Program	\$108,652	\$111,912	1,329	\$84.18
Burbank	Employee Rideshare Subsidies	\$39,745	\$40,937	437	\$93.72
Cerritos	Employee Rideshare Trip Rebate Program	\$24,128	\$24,851	262	\$94.82
Compton	Employee Trip Reduction Program	\$27,122	\$27,935	287	\$97.41
Rialto	Employee Rideshare Program	\$65,929	\$67,907	579	\$117.23
Stanton	Commute Incentive Program	\$380	\$391	3	\$137.39
Manhattan Beach	Rideshare Program	\$11,880	\$12,236	85	\$143.17
Monterey Park	Employee Transportation Program	\$25,000	\$25,750	169	\$152.34
Claremont	Employees Using Public Transportation (6 Employees)	\$3,010	\$3,100	20	\$154.42
Carson	Employee Carpool Program	\$19,080	\$19,652	122	\$161.68
West Hollywood	Alternative Transportation Mode Incentive	\$30,584	\$31,502	192	\$164.22
San Bernardino (City)	Rideshare Program	\$21,876	\$22,533	133	\$169.49

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(6a) Employer-Based Trip Reduction (cont'd)						
Upland	Rideshare Activities	\$13,128	\$13,522	73	\$184.93	
Whittier	Employee-Based Trip Reduction	\$7,097	\$7,310	37	\$199.56	
Garden Grove	TDM Services	\$58,147	\$59,892	296	\$202.15	
El Monte	Monthly Rideshare Incentive	\$48,652	\$50,111	235	\$213.50	
Montclair	Rideshare Program	\$25,776	\$26,550	122	\$218.42	
La Verne	Bike, Carpool, Walk, Incentive Program	\$12,205	\$12,571	55	\$228.24	
Arcadia	Rideshare Plus Program	\$22,444	\$23,117	90	\$257.44	
Santa Ana	Blue Skies Ride share Program	\$133,996	\$138,016	483	\$285.58	
Rancho Cucamonga	Employer Ride Share Program	\$16,574	\$17,072	58	\$295.10	
Downey	Downey Employee "Thumbs Up" Commuting Program	\$121,239	\$124,876	227	\$550.21	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$2,907,404	\$2,994,626	138,951	\$21.55
(6b) Other Trip Reduction Incentive Programs						
Carson	Carpool Program for Community Event	\$9,935	\$10,233	1,280	\$7.99	
San Juan Capistrano	Sr Nutritional Transportation Program	\$10,195	\$10,501	1,389	\$7.56	
Hermosa Beach	AQMD Incentives to reduce auto trips	\$6,525	\$6,721	11	\$589.79	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$26,655	\$27,455	2,680	\$10.24
(6c) Vanpool Programs						
County of San Bernardino	Vanpool Subsidy Program	\$20,480	\$21,094	496	\$42.57	
Los Angeles (City)	Employee Vanpool Program	\$260,917	\$268,744	8,223	\$32.68	
Anaheim	Citywide Vanpool Program	\$92,116	\$94,879	499	\$190.10	
Westminster	Employee Vanpool Program	\$8,221	\$8,468	33	\$256.60	
Garden Grove	Vanpool Program Conventional Gasoline	\$56,329	\$58,019	105	\$553.89	
Garden Grove	Vanpool Program CNG	\$30,768	\$31,691	31	\$1,019.06	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$468,830	\$482,895	9,387	\$51.45
		Category Summary	\$3,402,890	\$3,504,976	151,018	\$23.21

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(8) Bicycles						
(8a) Bicycle Lanes and Trails (also bridges)						
Long Beach	Class I Willow Bike Path to San Gabriel River	\$2,644	\$178	34	\$5.20	
Long Beach	Class II Bike Lanes to LA River	\$92,174	\$7,721	134	\$57.47	
Yorba Linda	Bike Lane Enhancement Program	\$8,500	\$1,143	17	\$68.35	
Redlands	Installation of Class II Bike Lanes	\$83,040	\$13,252	189	\$70.01	
Long Beach	Protected Bike Lanes on 3rd and Broadway	\$38,180	\$3,198	13	\$240.94	
Yucaipa	Class II Bike Lane Construction Activities - Yucaipa Blvd.	\$141,122	\$11,821	44	\$269.60	
Yucaipa	Class II Bike Lane Construction Activities	\$43,511	\$3,645	7	\$535.98	
Highland	Class II Bike Lane Installation	\$317,023	\$53,112	6	\$9,470.35	
Long Beach	Class I Bicycle Path Gap Closure - Pier J Project	\$4,853	\$326	0	\$12,721.93	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$731,046	\$94,395	444	\$212.57
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)						
Santa Clarita	Bike to work	\$2,809	\$2,893	90	\$32.23	
Orange (City)	Bike Loan to Own Program	\$2,105	\$2,168	15	\$146.37	
Westlake Village	Bike purchase for Animal Control patrol	\$550	\$102	1	\$201.25	
Long Beach	Bike Share Program	\$20,177	\$20,782	55	\$376.82	
Orange (City)	Orange Police Bike Team	\$6,461	\$6,655	15	\$431.31	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$32,102	\$32,600	176	\$185.57
		Category Summary	\$763,149	\$126,996	620	\$204.91
(9) PM Reduction Strategies						
(9a) Road Dust Control (paving roads, shoulders, street sweeping)						
El Monte	Regional PM10 Street Sweeper Contract (2 Vehicles)	\$43,066	\$5,049	3,689	\$1.37	
Colton	Lease of a CNG Street Sweeper	\$41,986	\$4,922	1,112	\$4.43	
Walnut	Street Sweeping with CNG Sweeper	\$50,860	\$5,962	973	\$6.13	
Lomita	Leasing alternative fuel street sweepers	\$15,000	\$1,758	264	\$6.66	
Moreno Valley	Street Sweeping Program	\$165,393	\$19,389	1,581	\$12.26	
Loma Linda	City Street Sweeping	\$19,200	\$2,251	79	\$28.34	
Hawthorne	PM10 Reduction Street Sweeping Project	\$100,000	\$103,000	3,221	\$31.98	
Jurupa Valley	Contract Street Weeping	\$57,120	\$58,834	885	\$66.48	
Indian Wells	Regional PM10 Street Sweeping Program	\$4,932	\$5,080	37	\$138.97	
Palm Desert	Regional PM10 Street Sweeping Program	\$47,250	\$48,668	325	\$149.78	
Indio	Regional PM 10 StreetSweeping Program	\$84,337	\$86,867	580	\$149.83	
La Quinta	Regional PM 10 Street Sweeping Program	\$38,288	\$39,437	263	\$149.95	

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)	
(9a) Road Dust Control (paving roads, shoulders, street sweeping) (cont'd)						
County of Riverside	Regional PM10 Street Sweeping Program	\$47,768	\$49,201	328	\$150.12	
Desert Hot Springs	Regional PM10 Street Sweeping Program	\$27,821	\$28,655	191	\$150.25	
Cathedral City	Regional PM10 Street Sweeping Program	\$51,968	\$53,527	356	\$150.30	
Palm Springs	Regional PM10 Street Sweeping Program	\$44,683	\$46,023	306	\$150.63	
Rancho Mirage	Regional PM10 Street Sweeping Program	\$17,306	\$17,825	118	\$151.56	
Coachella	Regional PM10 Street Sweeping Program	\$57,985	\$59,724	298	\$200.19	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$914,962	\$636,172	14,604	\$43.56
		Category Summary	\$914,962	\$636,172	14,604	\$43.56
(11) Miscellaneous Projects						
(11a) Miscellaneous (use with "Miscellaneous Projects" Category)						
Irvine	Purchase Rule 2202 Credit	\$7,794	\$8,028	692	\$11.59	
West Covina	Air Quaility Investment Program (AQIP)	\$6,127	\$6,311	522	\$12.09	
Riverside (City)	AQMD Rule 2202 Compliance	\$23,472	\$24,176	1,857	\$13.02	
Pomona	Purchase of Emission Credits	\$8,680	\$8,940	678	\$13.19	
Long Beach	Rule 2202 Emissions Credit Purchase	\$35,353	\$36,414	2,445	\$14.89	
County of Riverside	Purchase of Mobile Source Emission Reduction Credits	\$273,287	\$281,486	17,126	\$16.44	
Fullerton	Rule 2202 Emission Credits	\$21,571	\$22,218	1,174	\$18.93	
Whittier	Rule 2202 Compliance - Emission Credits Purchased	\$12,600	\$12,978	501	\$25.90	
Los Angeles (City)	Green Taxi Program Development	\$105,960	\$109,139	203	\$537.93	
Riverside (City)	ProjectDox	\$69,251	\$71,329	53	\$1,342.46	
Subcategory Totals and Average cost-effectiveness**:		Subcategory Summary	\$564,096	\$581,019	25,251	\$23.01
		Category Summary	\$564,096	\$581,019	25,251	\$23.01
		Program Summary	\$11,693,149	\$6,793,868	267,815	\$25.37

*Air Funds amortized equals (MV Fees + MSRC + Moyer) multiplied by the Capital Recovery Factor.

Cost-effectiveness is based on air funds and on ROG + NOx + PM2.5 + CO/7.

Only those projects with cost-effectiveness greater than zero are included in this report.

Cost-Effectiveness of Funding by Project

Fiscal Year 2016-2017

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles					
<i>Alhambra</i>	Purchase (1) 2017 Ford Fusion	\$3,840.90	\$3,840.90	\$945.75	\$945.75
<i>Alhambra</i>	Purchase of one 2017 Chevrolet Volt	\$4,035.50	\$4,035.50	\$993.67	\$993.67
<i>Aliso Viejo</i>	1 electric vehicle	\$21,184.29	\$21,184.29	\$6,088.60	\$6,088.60
<i>Aliso Viejo</i>	3 alternative fuel vehicles	\$20,037.47	\$20,037.47	\$4,933.85	\$4,933.85
<i>Arcadia</i>	Vehicle Replacement - Passenger Car	\$24,228.44	\$24,228.44	\$5,965.80	\$5,965.80
<i>Arcadia</i>	Vehicle Replacement - Public Works Vehicle	\$168.82	\$168.82	\$166.72	\$166.72
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$1,716.56	\$1,716.56	\$1,716.56	\$1,716.56
<i>Azusa</i>	Alternative Fuel Street Sweeper Lease(s)	\$1,584.33	\$2,112.48	\$1,583.29	\$2,111.09
<i>Baldwin Park</i>	Hybrid Toyota Purchase	\$12,438.59	\$12,438.59	\$3,062.77	\$3,062.77
<i>Baldwin Park</i>	Hybrid Ford Purchase	\$26,737.17	\$26,737.17	\$6,583.53	\$6,583.53
<i>Brea</i>	Public Works Electric Vehicle for Trail	\$134,148.03	\$134,148.03	\$38,555.61	\$38,555.61
<i>Brea</i>	Police Electric Vehicle for Trail Patrol	\$91,348.28	\$91,348.28	\$26,254.49	\$26,254.49
<i>Calabasas</i>	Continued Lease of City Fleet (2)	\$6,740.34	\$6,740.34	\$1,659.68	\$1,659.68
<i>Calabasas</i>	Continues Lease of City Fleet (1)	\$1,903.04	\$1,903.04	\$468.59	\$468.59
<i>Calimesa</i>	Alternative Fuel Vehicles	\$24,173.19	\$71,316.77	\$5,952.19	\$17,560.41
<i>Coachella</i>	Electric Vehicle Purchase	\$5,880.88	\$5,880.88	\$1,690.23	\$1,690.23
<i>County of Orange</i>	Electric forklift Replacement Program	\$11.04	\$11.04	\$11.04	\$11.04
<i>County of Orange</i>	Electric Forklift Replacement Program	\$15.48	\$15.48	\$15.48	\$15.48
<i>County of Orange</i>	Plug-in Hybrids for Motor Pool Green Fleet	\$26,113.90	\$26,113.90	\$6,430.06	\$6,430.06
<i>Cudahy</i>	Hybrid Vehicle Lease	\$11,997.25	\$11,997.25	\$2,954.10	\$2,954.10
<i>Culver City</i>	Purchase of 18 CNG Transit Buses	\$1.23	\$121.35	\$1.21	\$119.84
<i>Downey</i>	Purchase Replacement Vehicles	\$12,638.34	\$12,638.34	\$3,111.95	\$3,111.95
<i>Fontana</i>	AFV Rebate Program	\$153.99	\$153.99	\$37.92	\$37.92
<i>Fontana</i>	AFV Rebate Program	\$153.99	\$153.99	\$37.92	\$37.92
<i>Fullerton</i>	Lease of Pool Cars	\$49,183.43	\$49,183.43	\$12,110.49	\$12,110.49
<i>Garden Grove</i>	Alternative Fuel Vehicle Rebate Program	\$10,231.26	\$10,231.26	\$2,519.25	\$2,519.25
<i>Hemet</i>	Purchase (1) 2017 Freightliner CNG Dump	\$1,020.11	\$6,459.32	\$973.89	\$6,166.64
<i>Huntington Park</i>	Toyota Hybrid Leased Vehicle	\$1,013.78	\$1,013.78	\$249.63	\$249.63
<i>Huntington Park</i>	Purchased Gator Electric Vehicle	\$74.98	\$74.98	\$74.98	\$74.98
<i>Huntington Park</i>	Electric Fiat 500 E leased Vehicle	\$105.68	\$105.68	\$30.37	\$30.37
<i>Irvine</i>	CNG Vehicles Conversion	\$244,961.93	\$244,961.93	\$60,317.26	\$60,317.26

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles (cont'd)					
<i>Jurupa Valley</i>	Purchase Hybrid Vehicle	\$13,110.42	\$13,110.42	\$3,228.19	\$3,228.19
<i>La Canada Flintridge</i>	Hybrid Gas/Electric Vehicle Purchase	\$49,161.50	\$49,161.50	\$12,105.09	\$12,105.09
<i>La Mirada</i>	Purchase 6 Ford Fusion S Hybrid 2.0 L IVCT	\$18,592.71	\$18,592.71	\$4,578.10	\$4,578.10
<i>La Puente</i>	Purchase 1 2016 Toyota Rav4 XLE Hybrid	\$8,420.33	\$8,420.33	\$2,073.35	\$2,073.35
<i>La Puente</i>	Purchase 1 2017 GEM ELXD Electric Cart	\$2,526.69	\$2,526.69	\$2,526.69	\$2,526.69
<i>La Verne</i>	Street Sweeper	\$3.09	\$3.09	\$3.08	\$3.08
<i>Lawndale</i>	Hybrid Vehicles	\$19,798.53	\$19,798.53	\$4,875.02	\$4,875.02
<i>Lomita</i>	Lease of Electric Golf to replace gas vehicle	\$307.86	\$307.86	\$88.48	\$88.48
<i>Long Beach</i>	Purchase of medium duty electric car	\$4,982.10	\$22,389.58	\$1,226.75	\$5,513.01
<i>Los Angeles (City)</i>	#1 Alt Fuel Purch-CNG Solid Waste	\$13.48	\$135.66	\$13.41	\$134.94
<i>Los Angeles (City)</i>	#2 Alt Fuel Purch-14 Peterbilt 365 Hvy-Haul	\$13.57	\$145.34	\$13.50	\$144.57
<i>Lynwood</i>	Purchase of 6 Electric Vehicles (Nissan)	\$82,223.22	\$82,223.22	\$23,631.85	\$23,631.85
<i>Maywood</i>	Purchase of 4 New Electric Vehicles	\$16,275.99	\$16,275.99	\$4,677.90	\$4,677.90
<i>Norco</i>	One 2017 Hybrid Nissan Rogue	\$33,928.99	\$33,928.99	\$8,354.37	\$8,354.37
<i>Norco</i>	One 2017 Hybrid Nissan Rogue	\$26,255.38	\$26,255.38	\$6,464.89	\$6,464.89
<i>Norwalk</i>	Cleaner Street Sweeping Contract	\$68.93	\$557.66	\$68.84	\$556.90
<i>Orange (City)</i>	Community Services Electric Vehicle	\$302.30	\$302.30	\$108.10	\$108.10
<i>Perris</i>	Purchase of 2017 Toyota Highlander Hybrid	\$22,155.93	\$22,155.93	\$5,455.48	\$5,455.48
<i>Pico Rivera</i>	Lease payments of (6) Hybrid Vehicles (2014	\$7,021.77	\$7,021.77	\$1,728.98	\$1,728.98
<i>Placentia</i>	Purchase of 10 Chevy Spark electric vehicles	\$404.82	\$404.82	\$116.35	\$116.35
<i>Rancho Palos Verdes</i>	2017 Toyota Prius for CDD	\$46,644.36	\$46,644.36	\$11,485.30	\$11,485.30
<i>Redlands</i>	Partially fund 1 CNG Passenger Bus	\$903.38	\$1,468.05	\$903.38	\$1,468.05
<i>Riverside (City)</i>	Electric Vehicle Rebate Program	\$20.41	\$20.41	\$5.86	\$5.86
<i>San Fernando</i>	CNG Ford F-250 Utility Truck Purchase	\$92,556.76	\$92,556.76	\$22,790.36	\$22,790.36
<i>San Jacinto</i>	Electric Golf Cart Purchase for Water	\$38.05	\$38.05	\$38.05	\$38.05
<i>San Jacinto</i>	Purchase of Tier 4 Skiploader	\$53.88	\$53.88	\$53.88	\$53.88
<i>Santa Ana</i>	Electric Vehicle Lease (2)	\$5,329.25	\$5,329.25	\$1,531.68	\$1,531.68
<i>Santa Monica</i>	Purchase of (5) Ford Focus Evs	\$764.63	\$9,879.78	\$219.76	\$2,839.56
<i>Santa Monica</i>	Purchase of (10) 2017 Nissan Leafs	\$37,951.46	\$191,283.94	\$10,907.67	\$54,977.10
<i>South Gate</i>	Purchase (1) Smithco Super Star Electric	\$3,042.01	\$3,042.01	\$3,042.01	\$3,042.01
<i>South Gate</i>	Purchase (1) John Deere Electric Gator	\$786.19	\$786.19	\$786.34	\$786.34
<i>South Pasadena</i>	Ford F250 Reg Cab CNG Svc Truck	\$1,360.50	\$1,360.50	\$1,360.50	\$1,360.50
<i>Temple City</i>	Lease of Alternative Fuel Vehicles	\$3,303.05	\$3,303.05	\$813.32	\$813.32
<i>Upland</i>	Vehicle Purchase	\$10,018.80	\$10,018.80	\$2,466.94	\$2,466.94

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles (cont'd)					
<i>Upland</i>	Vehicle Purchase	\$15,114.06	\$15,114.06	\$3,721.55	\$3,721.55
<i>Westlake Village</i>	Lease of one Toyota Rav4 hybrid electric	\$7,979.41	\$7,979.41	\$1,964.78	\$1,964.78
<i>Yorba Linda</i>	Purchase (1) Electric Vehicle in Replacement	\$2,340.26	\$2,340.26	\$672.62	\$672.62
(2) Vehicle Emissions Abatement					
<i>Hemet</i>	Particulate Trap for (1) Constr. Backhoe 2	\$160.22	\$160.22	\$160.22	\$160.22
<i>Hemet</i>	Particulate Trap for (1) Constr. Backhoe 1	\$220.42	\$220.42	\$220.42	\$220.42
(4) Public Transportation (Transit & Rail)					
<i>Anaheim</i>	ART Shuttle - Route 17	\$911.56	\$987.25	\$2,552.67	\$2,764.60
<i>Anaheim</i>	METROLINK & OCTA Transit Subsidies	\$194.64	\$223.51	\$120.93	\$138.86
<i>Azusa</i>	Transit Pass Subsidy	\$156.51	\$156.51	\$97.24	\$97.24
<i>Burbank</i>	Employee Transit Subsidies	\$378.31	\$378.31	\$235.04	\$235.04
<i>Compton</i>	Employee Transit Subsidies	\$1,169.82	\$1,169.82	\$726.79	\$726.79
<i>Corona</i>	Corona Cruiser Fare Subsidy	\$162.93	\$162.93	\$101.53	\$101.53
<i>Covina</i>	Commuter Choice Reimbursement Program	\$329.73	\$329.73	\$205.23	\$205.23
<i>Garden Grove</i>	Transit Subsidy (Metrolink & Bus)	\$84.62	\$84.62	\$52.57	\$52.57
<i>Glendale</i>	Transit Fare Subsidy	\$179.06	\$179.06	\$111.25	\$111.25
<i>Grand Terrace</i>	Senior Transportation Program	\$345.92	\$1,037.77	\$217.02	\$651.05
<i>Huntington Beach</i>	4th of July/US Surf Open Shuttle	\$2,329.65	\$2,329.65	\$2,097.87	\$2,097.87
<i>La Habra</i>	Shuttles to transport seniors	\$3,216.13	\$5,979.14	\$5,199.66	\$9,666.75
<i>Laguna Beach</i>	Free Ride to Work Bus Pass Program	\$213.84	\$213.84	\$132.74	\$132.74
<i>Laguna Beach</i>	Free Main Line Service During Summer	\$190.31	\$190.31	\$118.13	\$118.13
<i>Mission Viejo</i>	Mission Viejo (MV) Shuttle: FY16-17	\$6,116.43	\$6,461.32	\$14,658.70	\$15,485.27
<i>Monrovia</i>	Monrovia Public Transportation Subsidy	\$655.79	\$655.79	\$409.97	\$409.97
<i>Norwalk</i>	Transit Subsidy	\$282.96	\$282.96	\$175.97	\$175.97
<i>Rancho Palos Verdes</i>	Palos Verdes Peninsula Transit Authority	\$32.27	\$32.27	\$20.19	\$20.19
<i>Riverside (City)</i>	City Pass Program	\$92.38	\$92.38	\$57.18	\$57.18
<i>Riverside (City)</i>	Riverside Go Transit Bus Pass Subsidy	\$10.58	\$10.58	\$6.61	\$6.61
<i>San Clemente</i>	San Clemente Summer Trolley	\$361.08	\$2,278.89	\$234.85	\$1,482.20
<i>San Juan Capistrano</i>	Trolley Program	\$2,771.61	\$8,643.63	\$2,316.31	\$7,223.71
<i>Seal Beach</i>	Senior Transportation Nutrition Shuttle	\$1,183.56	\$3,609.52	\$1,299.67	\$3,963.62
<i>South El Monte</i>	Bus Pass Subsidy Program	\$36.17	\$36.17	\$22.64	\$22.64
<i>Temecula</i>	Route 55 RTA Transit New Services	\$114.69	\$114.69	\$83.85	\$83.85
<i>Walnut</i>	Bus Pass Subsidies	\$74.50	\$74.50	\$46.63	\$46.63

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(5) Traffic Management					
Anaheim	Traffic Signal Synchronization	\$4.35	\$4.72	\$3.52	\$3.81
Artesia	Pre-Emption Replacement	\$437.50	\$437.50	\$224.08	\$224.08
Costa Mesa	Baker St./Placentia Ave. Traffic Signal Sync	\$14.52	\$14.52	\$12.71	\$12.71
Costa Mesa	17th. St. Signal Synchronization Project	\$2.72	\$2.72	\$2.24	\$2.24
Costa Mesa	Sunflower Ave. & Anton Blvd. Signal	\$479.33	\$479.33	\$419.41	\$419.41
Costa Mesa	Fairview Rd. Traffic Signal Synchronization	\$12.57	\$12.57	\$11.00	\$11.00
Highland	Traffic Signal Synchronization	\$89.23	\$89.23	\$49.75	\$49.75
Irwindale	Left Turn Phasing on Peck Rd & Longden	\$19.42	\$19.42	\$16.99	\$16.99
Laguna Niguel	Traffic Signal Coordination	\$4.22	\$4.22	\$2.96	\$2.96
Lake Forest	Barranca/Muirlands Traffic Signal	\$0.63	\$0.63	\$0.63	\$0.63
Lake Forest	Bake Parkway Traffic Signal Synchronization	\$0.74	\$0.74	\$0.41	\$0.41
Los Angeles (City)	Seg10 Magnolia Bl from Leghorn Av to	\$133.02	\$275.30	\$103.46	\$214.12
Los Angeles (City)	Seg 9 Whittsett Av from Chandler Bl to	\$92.53	\$191.50	\$86.36	\$178.74
Los Angeles (City)	Seg 2 Westwood Bl from Pico Bl to	\$108.08	\$223.69	\$94.57	\$195.73
Los Angeles (City)	Seg 8 Vermont Av from Wilshire Bl to MLK	\$39.53	\$81.81	\$36.89	\$76.35
Los Angeles (City)	Seg1 Figueroa St between Imperial Hwy and	\$201.07	\$416.13	\$156.39	\$323.65
Mission Viejo	City of Mission Viejo Traffic Signal	\$0.96	\$0.96	\$0.84	\$0.84
Placentia	Kraemer Blvd Signal Sync.	\$0.41	\$0.41	\$0.34	\$0.34
Riverside (City)	Riverside Traffic Management Center	\$118.16	\$118.16	\$60.52	\$60.52
San Juan Capistrano	Neighborhood Traffic Calming Project	\$44.25	\$44.25	\$42.32	\$42.32
San Juan Capistrano	Regional Traffic Synchronization Program	\$26.27	\$26.27	\$16.41	\$16.41
Santa Clarita	ITS Phase IV (I0009)	\$47.01	\$360.57	\$37.97	\$291.23
(6) Transportation Demand Management					
Anaheim	Citywide Vanpool Program	\$255.98	\$296.79	\$190.10	\$220.40
Anaheim	Trip Reduction Program	\$35.82	\$38.79	\$22.25	\$24.10
Arcadia	Rideshare Plus Program	\$414.37	\$414.37	\$257.44	\$257.44
Azusa	Rideshare Financial Incentives	\$109.13	\$109.13	\$67.80	\$67.80
Baldwin Park	Employee Trip Reduction Incentive Programs	\$24.95	\$24.95	\$15.50	\$15.50
Bell Gardens	Employee Rideshare Subsidies	\$1.75	\$1.75	\$1.08	\$1.08
Burbank	Employee Rideshare Subsidies	\$150.84	\$150.84	\$93.72	\$93.72
Carson	Employee Carpool Program	\$260.24	\$260.24	\$161.68	\$161.68
Carson	Carpool Program for Community Event	\$12.77	\$12.77	\$7.99	\$7.99
Cerritos	Employee Rideshare Trip Rebate Program	\$152.62	\$152.62	\$94.82	\$94.82
Claremont	Employees Using Public Transportation (6	\$248.42	\$248.42	\$154.42	\$154.42

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(6) Transportation Demand Management (cont'd)					
<i>Commerce</i>	Employer Based Trip Reduction	\$73.72	\$73.72	\$45.80	\$45.80
<i>Compton</i>	Employee Trip Reduction Program	\$156.79	\$156.79	\$97.41	\$97.41
<i>County of LA</i>	Employee Commute Reduction Program	\$25.25	\$25.25	\$15.69	\$15.69
<i>County of Orange</i>	Employee Rideshare Program	\$3.36	\$19.49	\$2.10	\$12.17
<i>County of Riverside</i>	Commuter Services Rideshare Program	\$27.61	\$27.61	\$17.15	\$17.15
<i>County of San Bernardino</i>	Employee Commute Reduction Program	\$55.68	\$55.68	\$34.59	\$34.59
<i>County of San Bernardino</i>	Vanpool Subsidy Program	\$38.10	\$38.10	\$42.57	\$42.57
<i>Downey</i>	Downey Employee "Thumbs Up"	\$885.62	\$885.62	\$550.21	\$550.21
<i>El Monte</i>	Monthly Rideshare Incentive	\$343.64	\$343.64	\$213.50	\$213.50
<i>Fontana</i>	Rideshare Activities	\$52.50	\$52.50	\$32.70	\$32.70
<i>Garden Grove</i>	TDM Services	\$325.37	\$325.37	\$202.15	\$202.15
<i>Garden Grove</i>	Vanpool Program CNG	\$1,097.66	\$1,097.66	\$1,019.06	\$1,019.06
<i>Garden Grove</i>	Vanpool Program Conventional Gasoline	\$723.22	\$723.22	\$553.89	\$553.89
<i>Glendale</i>	Employer Based Trip Reduction Program	\$16.59	\$16.59	\$10.31	\$10.31
<i>Glendora</i>	Altcom Program	\$104.57	\$104.57	\$64.96	\$64.96
<i>Hawthorne</i>	Financial Incentives for rideshare	\$131.19	\$131.19	\$81.50	\$81.50
<i>Hermosa Beach</i>	AQMD Incentives to reduce auto trips	\$949.32	\$949.32	\$589.79	\$589.79
<i>Huntington Beach</i>	Employee Rideshare Activities	\$91.62	\$91.62	\$56.92	\$56.92
<i>La Verne</i>	Bike, Carpool, Walk, Incentive Program	\$367.38	\$367.38	\$228.24	\$228.24
<i>Los Angeles (City)</i>	Employer's Walk Incentive Program	\$26.91	\$26.91	\$16.75	\$16.75
<i>Los Angeles (City)</i>	Employee Vanpool Program	\$46.52	\$153.93	\$32.68	\$108.14
<i>Los Angeles (City)</i>	Employer's Rail and Bus Transit Incentive	\$14.94	\$14.94	\$9.28	\$9.28
<i>Los Angeles (City)</i>	Employer' Carpool Program	\$20.21	\$20.21	\$12.56	\$12.56
<i>Los Angeles (City)</i>	Bicycle Transit Incentive Program	\$37.41	\$37.41	\$23.24	\$23.24
<i>Manhattan Beach</i>	Rideshare Program	\$230.45	\$230.45	\$143.17	\$143.17
<i>Monrovia</i>	Monrovia Employee Ride Share	\$59.06	\$59.06	\$36.70	\$36.70
<i>Montclair</i>	Rideshare Program	\$351.57	\$351.57	\$218.42	\$218.42
<i>Montebello</i>	Employee Commute Reduction Program	\$94.24	\$94.24	\$58.55	\$58.55
<i>Monterey Park</i>	Employee Transportation Program	\$245.20	\$245.20	\$152.34	\$152.34
<i>Newport Beach</i>	Employee Rideshare Program	\$75.83	\$75.83	\$47.11	\$47.11
<i>Orange (City)</i>	Trip Reduction Program	\$134.50	\$134.50	\$84.18	\$84.18
<i>Palm Desert</i>	City Rideshare Program	\$109.36	\$109.36	\$67.78	\$67.78

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(6) Transportation Demand Management (cont'd)					
<i>Pasadena</i>	Prideshare	\$82.72	\$82.72	\$51.40	\$51.40
<i>Rancho Cucamonga</i>	Employer Ride Share Program	\$474.98	\$474.98	\$295.10	\$295.10
<i>Redondo Beach</i>	Employee Rideshare	\$102.43	\$102.43	\$63.75	\$63.75
<i>Rialto</i>	Employee Rideshare Program	\$188.69	\$188.69	\$117.23	\$117.23
<i>Riverside (City)</i>	Employee Rideshare Program	\$22.53	\$22.53	\$13.95	\$13.95
<i>San Bernardino (City)</i>	Rideshare Program	\$272.80	\$272.80	\$169.49	\$169.49
<i>San Juan Capistrano</i>	Sr Nutritional Transportation Program	\$12.14	\$78.77	\$7.56	\$49.05
<i>Santa Ana</i>	Blue Skies Ride share Program	\$459.66	\$459.66	\$285.58	\$285.58
<i>Santa Clarita</i>	Rideshare	\$42.91	\$42.91	\$26.66	\$26.66
<i>South Gate</i>	Employee Rideshare Program	\$72.34	\$72.34	\$44.94	\$44.94
<i>Stanton</i>	Commute Incentive Program	\$221.14	\$221.14	\$137.39	\$137.39
<i>Torrance</i>	Employee Rideshare	\$63.08	\$63.08	\$39.33	\$39.33
<i>Upland</i>	Rideshare Activities	\$297.65	\$297.65	\$184.93	\$184.93
<i>West Hollywood</i>	Alternative Transportation Mode Incentive	\$264.33	\$264.33	\$164.22	\$164.22
<i>Westminster</i>	Employee Rideshare Program	\$51.64	\$51.64	\$32.08	\$32.08
<i>Westminster</i>	Employee Vanpool Program	\$267.49	\$267.49	\$256.60	\$256.60
<i>Whittier</i>	Employee-Based Trip Reduction	\$322.13	\$322.13	\$199.56	\$199.56
(8) Bicycles					
<i>Highland</i>	Class II Bike Lane Installation	\$14,997.15	\$14,997.15	\$9,470.35	\$9,470.35
<i>Long Beach</i>	Class II Bike Lanes to LA River	\$89.60	\$89.60	\$57.47	\$57.47
<i>Long Beach</i>	Protected Bike Lanes on 3rd and Broadway	\$656.41	\$656.41	\$240.94	\$240.94
<i>Long Beach</i>	Class I Bicycle Path Gap Closure - Pier J	\$20,254.57	\$20,254.57	\$12,721.93	\$12,721.93
<i>Long Beach</i>	Bike Share Program	\$656.53	\$656.53	\$376.82	\$376.82
<i>Long Beach</i>	Class I Willow Bike Path to San Gabriel River	\$8.27	\$8.27	\$5.20	\$5.20
<i>Orange (City)</i>	Bike Loan to Own Program	\$409.32	\$409.32	\$146.37	\$146.37
<i>Orange (City)</i>	Orange Police Bike Team	\$1,206.10	\$1,206.10	\$431.31	\$431.31
<i>Redlands</i>	Installation of Class II Bike Lanes	\$117.16	\$117.16	\$70.01	\$70.01
<i>Santa Clarita</i>	Bike to work	\$51.48	\$51.48	\$32.23	\$32.23
<i>Westlake Village</i>	Bike purchase for Animal Control patrol	\$342.32	\$342.32	\$201.25	\$201.25
<i>Yorba Linda</i>	Bike Lane Enhancement Program	\$111.14	\$111.14	\$68.35	\$68.35
<i>Yucaipa</i>	Class II Bike Lane Construction Activities -	\$429.23	\$429.23	\$269.60	\$269.60
<i>Yucaipa</i>	Class II Bike Lane Construction Activities	\$853.33	\$853.33	\$535.98	\$535.98

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(9) PM Reduction Strategies					
<i>Cathedral City</i>	Regional PM10 Street Sweeping Program	\$150.32	\$150.32	\$150.30	\$150.30
<i>Coachella</i>	Regional PM10 Street Sweeping Program	\$200.21	\$200.21	\$200.19	\$200.19
<i>Colton</i>	Lease of a CNG Street Sweeper	\$4.43	\$4.43	\$4.43	\$4.43
<i>County of Riverside</i>	Regional PM10 Street Sweeping Program	\$150.14	\$150.14	\$150.12	\$150.12
<i>Desert Hot Springs</i>	Regional PM10 Street Sweeping Program	\$150.26	\$150.26	\$150.25	\$150.25
<i>El Monte</i>	Regional PM10 Street Sweeper Contract	\$1.37	\$1.37	\$1.37	\$1.37
<i>Hawthorne</i>	PM10 Reduction Street Sweeping Project	\$32.17	\$32.17	\$31.98	\$31.98
<i>Indian Wells</i>	Regional PM10 Street Sweeping Program	\$138.99	\$138.99	\$138.97	\$138.97
<i>Indio</i>	Regional PM 10 Street Sweeping Program	\$149.85	\$149.85	\$149.83	\$149.83
<i>Jurupa Valley</i>	Contract Street Weeping	\$66.72	\$66.72	\$66.48	\$66.48
<i>La Quinta</i>	Regional PM 10 Street Sweeping Program	\$149.95	\$149.95	\$149.95	\$149.95
<i>Loma Linda</i>	City Street Sweeping	\$28.41	\$28.41	\$28.34	\$28.34
<i>Lomita</i>	Leasing alternative fuel street sweepers	\$6.67	\$6.67	\$6.66	\$6.66
<i>Moreno Valley</i>	Street Sweeping Program	\$12.31	\$12.31	\$12.26	\$12.26
<i>Palm Desert</i>	Regional PM10 Street Sweeping Program	\$149.79	\$149.79	\$149.78	\$149.78
<i>Palm Springs</i>	Regional PM10 Street Sweeping Program	\$150.65	\$150.65	\$150.63	\$150.63
<i>Rancho Mirage</i>	Regional PM10 Street Sweeping Program	\$151.57	\$151.57	\$151.56	\$151.56
<i>Walnut</i>	Street Sweeping with CNG Sweeper	\$6.18	\$6.18	\$6.13	\$6.13
(11) Miscellaneous Projects					
<i>County of Riverside</i>	Purchase of Mobile Source Emission	\$16.44	\$16.44	\$16.44	\$16.44
<i>Fullerton</i>	Rule 2202 Emission Credits	\$33.16	\$33.16	\$18.93	\$18.93
<i>Irvine</i>	Purchase Rule 2202 Credit	\$20.64	\$20.64	\$11.59	\$11.59
<i>Long Beach</i>	Rule 2202 Emissions Credit Purchase	\$38.17	\$38.17	\$14.89	\$14.89
<i>Los Angeles (City)</i>	Green Taxi Program Development	\$2,184.52	\$2,184.52	\$537.93	\$537.93
<i>Pomona</i>	Purchase of Emission Credits	\$23.47	\$23.47	\$13.19	\$13.19
<i>Riverside (City)</i>	AQMD Rule 2202 Compliance	\$22.79	\$22.79	\$13.02	\$13.02
<i>Riverside (City)</i>	ProjectDox	\$2,161.47	\$2,161.47	\$1,342.46	\$1,342.46
<i>West Covina</i>	Air Quality Investment Program (AQIP)	\$21.18	\$21.18	\$12.09	\$12.09
<i>Whittier</i>	Rule 2202 Compliance - Emission Credits	\$45.38	\$45.38	\$25.90	\$25.90

*Used for Statewide Comparisons.

Air Funds include MV Fees, MSRC, and Moyer dollars. All Funds also include CMAQ and other Co-funding.

Summary of Projects that Reported Cost-Effectiveness

Fiscal Year 2016-2017

Motor Vehicle Fees	\$11,693,149
Air Funds (MV Fees+ MSRC + Moyer)	\$12,504,828
Amortized Air Funds	\$6,793,868
Emission Reductions (lbs per year) (ROG + NOx + PM2.5 + CO/7)	267,815
Average Cost-Effectiveness (dollars per lb)	\$25.37

This report includes only projects with cost-effectiveness greater than zero.

Cost-effectiveness equals amortized Air Funds (MV Fees + MSRC + Moyer dollars) divided by
ROG + NOx + PM2.5 + CO/7.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 22

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a regular meeting on Friday, February 8, 2019 and a special meeting on Tuesday, February 12, 2019. The following are summaries of the meetings.

RECOMMENDED ACTION:

Receive and file the attached summaries for the February 8, 2019 Administrative Committee meeting, and the February 12, 2019 Special Meeting of the Administrative Committee.

Dr. William A. Burke, Chair
Administrative Committee

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Summaries of the February 8 and February 12, 2019 Administrative Committee meetings are included as Attachments A and B.

Attachments

- A. February 8, 2019 Administrative Committee Meeting Summary
- B. February 12, 2019 Special Administrative Committee Meeting Summary

ATTACHMENT A
ADMINISTRATIVE COMMITTEE
MEETING SUMMARY – FRIDAY, FEBRUARY 8, 2019

Committee Members

Present: Dr. William A. Burke/Chair (videoconference)
Mayor Judith Mitchell

Absent: Council Member Ben Benoit/Vice Chair
Dr. Clark E. Parker, Sr.

Call to Order

Dr. Burke called the meeting to order at 10:04 a.m.

DISCUSSION ITEMS:

1. **Board Members' Concerns:** None to report.
2. **Chairman's Report of Approved Travel**
As noted in the travel report, Mayor Mitchell will attend the monthly CARB Board meeting as the SCAQMD Board representative in Sacramento on February 20-22, 2019. Mayor Mitchell, Mayor Pro Tem Larry McCallon, and Council Member Dwight Robinson will meet with members of the California Senate and House delegation in Washington D.C. on February 24-27, 2019 to ask the federal government to do its fair share to reduce emissions from federally-regulated sources. Council Member Joe Buscaino will attend the National League of Cities, Energy, Environment & Natural Resources Committee in Washington D.C. on March 9-13, 2019 regarding air quality.
3. **Report of Approved Out-of-Country Travel**
As noted in the out-of-country travel report, Dr. Jason Low, Assistant Deputy Executive Officer/Science & Technology Advancement, and Aaron Katzenstein, Laboratory Services Manager, will meet with the Taiwan EPA representatives in Taiwan on February 20-22, 2019 and provide a technical presentation on monitoring capabilities. Mr. Wayne Nastri, Executive Officer, reported that Taiwan EPA will provide full reimbursement for all of the expenses incurred and

it is anticipated that travel will change to early March. The North India office of the U.S. Embassy has invited Dr. Laki Tisopulos, Deputy Executive Officer/Engineering & Permitting, to a conference in Delhi, India on February 21, 2019-March 1, 2019 to discuss construction dust sources. Mr. Nastri reported that those dates may be revised to late February or March due to the government shutdown. Dr. Burke inquired if the hotel and other travel expenses would be covered by India to which Mr. Nastri responded yes.

4. **Review March 1, 2019 Governing Board Agenda**

None to report.

5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s)**

This item was deferred to the next Committee meeting.

6. **SCAQMD's FY 2018-19 Budget vs. Actual (Unaudited)**

Assistant Deputy Executive Officer/Finance Sujata Jain provided a presentation on revenues, expenditures, Board-approved use of Fund Balance and the Updated Fund Five-Year Projection covering the second quarter, ending December 2018.

7. **Report of RFP's Scheduled for Release in March**

Ms. Jain reported that this item is to request approval to release two RFPs for: 1) landscape services; and 2) heating ventilation and refrigeration equipment maintenance, service and repair. Dr. Burke inquired about the status of the elevator repair. Mr. Nastri responded that an engineering firm has been recently authorized to assist in the evaluation. Mr. John Olvera, Assistant Deputy Executive Officer/Administrative & Human Resources, added that an RFP will be brought to the March Administrative Committee meeting and the modernization program will begin in April. Mayor Mitchell inquired if zero emission equipment is being used on equipment maintenance services to which Mr. Olvera responded yes.

8. **Bid Evaluation Panel for RFP to Select Consultant Reviewing 1109.1 BARCT Analysis**

Ms. Jill Whynot, Chief Operating Officer, reported that this item is due to the Committee's direction to provide information on evaluation panel members for proposed RFPs. Planning and Rules Manager Mike Krause reported that an RFP was approved by the Board to select an engineering consulting firm for assistance in reviewing BARCT analysis for Proposed Rule 1109.1, which covers refinery equipment. Proposals were received from three engineering firms. The bid evaluation panel will consist of an SCAQMD engineering manager who oversees the RECLAIM refinery team, and a planning supervisor who has experience in RECLAIM refineries and evaluating control technologies; and a senior engineer from the Bay Area Air Quality Management

District with 25 years of experience in the refinery industry. Mr. Harvey Eder, Public Solar Power Coalition, commented that the Supreme Court stated that BARCT is technology forcing; and believes solar should be implemented. Dr. Burke stated it would be helpful if staff provided a response to Mr. Eder's comments. Mr. Nastri responded that in regards to this rule, Mr. Eder is incorrect. The rule does not apply to heaters or other emissions control equipment at refineries.

9. **Status Report on Major Ongoing and Upcoming Projects for Information Management**

Assistant Deputy Executive Officer/Chief Information Officer Ron Moskowitz reported that the SCAQMD mailboxes will be migrated to the Microsoft Cloud. The mobile application continues to gain momentum with users and a new update was just released to further improve functionality. The Android version for mobile applications will be released by the end of May. The Request to Speak application enhancements were implemented, as requested by the Committee, and have been in production since the February Board meeting. Dr. Burke stated that the new system is efficient.

ACTION ITEMS:

10. **Authorize Purchase of Maintenance and Support Services for Servers and Storage Devices**

Mr. Moskowitz reported that this is a standard request to obtain a one-year maintenance and support services for servers and storage. The funds are available in the budget.

Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

11. **Transfer and Appropriate Funds and Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services**

Mr. Moskowitz reported that that this request is to transfer and appropriate funds in order to complete application development projects, including the permit streamlining and mobile application for Android. The funds are available in the budget.

Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

12. **Issue RFP to Solicit Proposals and Execute Contract for Media, Advertising and Public Outreach Campaign for 2019/20 Check Before You Burn Program**

Legislative, Public Affairs & Media Deputy Executive Officer Derrick Alatorre, recommended that this item be continued to the March Administrative Committee meeting. The Committee Members concurred.

13. **Execute Contract for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives**

Mr. Alatorre reported that this item is to execute a one-year contract for \$160,000, with two one-year options, to continue environmental justice services. The Lee Andrews Group provided a presentation highlighting past environmental justice activities and future goals. Mayor Mitchell asked what can be done to improve the program attendance. Ms. Alisha James, Lee Andrews Group, responded that this year information on the SCAQMD and its programs will be targeted to parents and students. Mayor Mitchell asked which schools will be targeted. Ms. James responded that they recommend elementary schools to teach children about the benefits of air quality. Mayor Mitchell asked if materials will be given to the elementary school students. Ms. James responded that the students will be provided with water bottles that lists three things they can do to improve air quality, handouts on how to download the SCAQMD mobile application, letters to parents, and stickers. Mayor Mitchell stated that the Coalition for Clean Air has an application that connects monitors to a map that kids can use that displays air quality information.

Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

14. **Amend Charter for Environmental Justice Community Partnership Advisory Council and Young Leaders Advisory Council**

Mr. Alatorre reported that this item is to amend the charters of the Environmental Justice Community Partnership Advisory Council and the Young Leaders Advisory Council to add an attendance policy that states if any member misses two consecutive meetings without prior notice, they will be removed from advisory council membership. Dr. Burke inquired how did the attendance policy come about? Mr. Alatorre responded that members were not attending regularly and staff thought an attendance policy would be warranted. Mr. Nastri reported that Dr. Lyou suggested that this attendance policy be incorporated into other groups and committees.

Less than a quorum was present; the Committee Members concurred that this item be forwarded to the Board for consideration.

OTHER MATTERS:

15. **Other Business**

There was no other business.

16. **Public Comment**

Mr. Eder, Public Solar Power Coalition, commented on solar renewals for electric generation.

17. **Next Meeting Date**

The next regular Administrative Committee meeting is scheduled for March 8, 2019 at 10:00 a.m.

Adjournment

The meeting adjourned at 11:02 a.m.

ATTACHMENT B

SPECIAL ADMINISTRATIVE COMMITTEE MEETING SUMMARY – TUESDAY, FEBRUARY 12, 2019

Committee Members

Present: Dr. William A. Burke/Chair (videoconference)
Council Member Ben Benoit/Vice Chair
Mayor Judith Mitchell
Dr. Clark E. Parker, Sr.

Absent: Council Member Michael Cacciotti

Call to Order

Dr. Burke called the meeting to order at 10:04 a.m.

DISCUSSION ITEM:

1. **Approval of Compensation for Board Member Assistant(s)/Consultant(s)**
The Committee Members approved the new Board Consultant proposal for James Dinwiddie (Supervisor Lisa Bartlett); the contract modifications for Diane Moss (Supervisor Janice Hahn) and Guillermo Gonzalez (Supervisor V. Manuel Perez). This item is noted as a receive and file.

OTHER MATTERS:

2. **Public Comment**
There were no public comments.
3. **Next Meeting Date**
The next regular Administrative Committee meeting is scheduled for March 8, 2019 at 10:00 a.m.

Adjournment

The meeting adjourned at 10:09 a.m.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 23

REPORT: Investment Oversight Committee

SYNOPSIS: The Investment Oversight Committee held a meeting on Friday, February 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Michael A. Cacciotti, Chair
Investment Oversight Committee

SJ:tm

Committee Members

Present: Council Member Michael Cacciotti, Chair (teleconference)
Dr. Joseph K. Lyou
Committee Member Richard Dixon
Committee Member Brent Mason
Committee Member Patrick Pearce

Absent: Dr. William A. Burke, Vice Chair

Call to Order

Council Member Michael Cacciotti called the meeting to order at 12:02 p.m.

DISCUSSION ITEMS:

1. *Quarterly Report of Investments:* The Committee reviewed the quarterly investment report that was provided to the Board. For the month of December 2018, the SCAQMD's weighted average yield on total investments of \$878,895,333 from all sources was 2.13%. The allocation by investment type was 92.80% in the Los Angeles County Pooled Surplus Investment Fund (PSI) and 7.20% in the State of California Local Agency Investment Fund (LAIF) and Special Purpose Investments (SPI). The one-year Treasury Bill rate as of December 31, 2018 was 2.54%.

2. *Financial Market Update*: Richard Babbe from PFM Asset Management provided the Committee with information on current investment markets, economic conditions, and the overall outlook. He presented market information on uncertainty of any potential increases in federal interest rates, which is causing the Treasury yield curve to remain flat. Economic indicators were also presented that indicated consumer confidence remained high and although recession is not imminent the economy was softening. With volatility in the market, trade relations and political conditions, 2019 is expected to have a lot more uncertainty.
3. *Discuss Current Investments*: \$25 million in Special Purpose Investment matured on December 28, 2018. In January 2019, staff worked with Los Angeles County Treasurer to re-invest \$35 million in U.S. Treasuries with an average yield of 2.53%, and one-year maturity.

ACTION ITEM:

4. *Approval of Annual Investment Policy and Delegation of Authority to Los Angeles County Treasurer to Invest SCAQMD funds*: State law requires a local government entity to provide an annual statement of investment policy for consideration at a public meeting and to renew its delegation of authority to its treasurer to invest or to reinvest funds of the local agency. The Annual Investment Policy is being updated to reflect the changes to the rating of CDs and Asset-Backed Securities.

Moved by Dixon; seconded by Lyou; unanimously approved.

Absent: Burke

OTHER MATTERS:

5. Other Business

There was no other business.

6. Public Comment Period

There were no public comments.

7. Next Meeting Date

The next regular meeting of the Investment Oversight Committee is scheduled for May 17, 2019 at noon.

Adjournment

The meeting adjourned at 12:43 p.m.

 [Back to Agenda](#)

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 24A

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Friday, February 8, 2019. The following is a summary of the meeting.

Agenda Item	Recommendation/Action
SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019.	Support
AB 142 (C. Garcia) Lead-acid batteries.	Support

RECOMMENDED ACTION:

Receive and file this report, and approve agenda items as specified in this letter.

Judith Mitchell, Chair
Legislative Committee

DJA:LTO:PFC:jns

Committee Members

Present: Mayor Judith Mitchell/Chair
Council Member Joe Buscaino/Vice Chair (videoconference)
Dr. William A. Burke (videoconference)
Supervisor Janice Rutherford (videoconference)

Absent: Dr. Clark E. Parker, Sr.
Supervisor V. Manuel Perez

Call to Order

Chair Mitchell called the meeting to order at 9:02 a.m.

DISCUSSION ITEMS:

1. Update on Federal Legislative Issues

SCAQMD's federal legislative consultants (Cassidy & Associates, Kadesh & Associates, and Carmen Group) each provided a written report on various key Washington, D.C. issues.

Ms. Amelia Jenkins of Cassidy & Associates stated that there were no major updates to their written report since it was submitted.

Mr. Dave Ramey of Kadesh & Associates reported that the federal government partial shutdown ended on Friday, January 25, 2019. Congress and the President have until Friday, February 15, 2019 to complete seven unfinished spending bills for Fiscal Year 2019.

Mr. Gary Hoitsma of Carmen Group reported that in the President's State of the Union Address, the Administration would defer to Congress to work out details on the next Transportation and Infrastructure authorization bill.

2. Update on State Legislative Issues

SCAQMD's state legislative consultants (California Advisors, LLC, Joe A. Gonsalves & Son, and Quintana, Watts and Hartman) provided written reports on various key issues in Sacramento.

Mr. Ross Buckley of California Advisors, LLC reported that Governor Gavin Newsom has announced that he will give his first State of the State address on Tuesday February 12. Mr. Buckley also informed the Committee that the Assembly Natural Resources Committee will hold an informational hearing on AB 617 Implementation and Funding in March.

Mr. Paul Gonsalves of Joe A. Gonsalves & Sons had no updates.

Ms. Caity Maple of Quintana, Watts and Hartman had no updates.

Dr. Burke asked if there was any information regarding Dr. Lyou's reappointment. The consultants did not have any information, but Mr. Derrick Alatorre, Deputy Executive Officer/Legislative, Public Affairs & Media and Mr. Bayron Gilchrist, General Counsel, provided information on how long a Board Member can continue to serve on the Board under different circumstances.

3. Update on Proposed Legislation Regarding a Sales Tax Increase Authorization Ballot Measure for Air Quality Funding

Mr. Philip Crabbe, Public Affairs Manager, provided a brief update to the Committee regarding SCAQMD sponsored the Voting District Authorization bill. Mr. Crabbe reported that based on feedback from electeds and staff in Sacramento,

a change in messaging has been made to clarify what the bill actually does; it simply authorizes a voting district in the South Coast region to allow for possible future local funding ballot measures. The bill does not create any tax or raise any funds, so it was important to clarify that.

Mr. Crabbe also reported that staff and representatives continue to work to secure an author for the bill, that the bill language is being refined and streamlined based on feedback from Legislative Counsel and others in Sacramento, and that there is active communication with a wide spectrum of interested stakeholders, both in Sacramento and in the District.

Supervisor Rutherford expressed concern and disappointment about the timing and information shared regarding the process of pursuing the Voting District Authorization bill. Mr. Wayne Nastri, Executive Officer, responded that staff has been moving in an expeditious manner and just received draft bill language in January. Staff is currently working with Legislative Counsel in Sacramento regarding that language. Specific details about staff's activities regarding the bill has been included in the weekly reports to Board Members. The pressure of various legislative deadlines has played a role in the process. Mr. Nastri added that legislators and staff in Sacramento have expressed an interest in polling results regarding the bill and have emphasized that this bill is simply authorizes a voting district and should be more accurately described that way.

Dr. Burke confirmed that the weekly reports provided to Board Members have included detailed information about staff's activities and efforts regarding the bill.

Mayor Mitchell commented that the legislative language for the bill was presented to the full Board earlier this month.

Mr. Denny Zane with Move LA encouraged SCAQMD's efforts on pursuing the Voting District Authorization bill in large part because it would provide critical funding support to SCAQMD's efforts to clean the air, attain federal standards and protect public health.

Mr. Harvey Eder of the Public Solar Power Coalition expressed support for solar tax credits being refundable for low income individuals. Mr. Eder referenced the Solar New Deal and the Green New Deal. He also asked that sales tax charges be equitably refunded by the state.

4. Public Survey Relating to a Potential Sales Tax Increase Ballot Measure for Air Quality Funding

Mr. Alatorre introduced Mr. Rick Sklarz with Fairbank, Maslin, Maullin, Metz & Associates (FM3), who presented public survey results regarding a hypothetical ballot measure relating to a sales tax that would provide funding for clean air efforts.

Mr. Sklarz provided information about the methodology of the survey and information from different perspectives on how survey respondents reacted to the hypothetical ballot measure. The results overall were positive and showed 65% support overall throughout the South Coast region for such a ballot measure that would generate clean air funding.

Supervisor Rutherford inquired about the sampling level of college educated and post-college educated persons in San Bernardino County that were included in the survey. Mr. Sklarz responded that this sampling level was appropriate for registered voters within the South Coast region, as opposed to overall residents, and that there were varying levels of such college educated survey respondents amongst the four counties.

Council Member Buscaino inquired about the sampling process for the survey. Mr. Sklarz explained the modeling used for identifying the appropriate sample of survey respondents.

Mr. Zane stated that he found the survey results to be encouraging. He stated that he believes that clean infrastructure projects relating to public transit also help enhance voters' response. He suggests that money from a potential future ballot measure go to funding clean transit projects on project lists created by public transportation agencies.

ACTION ITEM:

5. Recommend Position on State Bills:

SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019.

Mr. Crabbe presented SB 1 to the committee. This bill would require various agencies, including CARB, to regularly assess changes to federal standards regarding air quality, water, protected species, and workers' rights, to ensure that existing protections remain intact in California, even if federal laws are weakened or repealed.

If CARB determines that a change to federal law is less stringent than existing standards, it shall consider whether to adopt state protections that at least preserve baseline federal standards in effect as of January 2017.

Staff would like to work with the author regarding a few issues identified in the bill analysis, including determining the appropriate interplay between CARB and local air districts regarding the adoption of regulations for stationary source emissions when backsliding in federal law is identified.

Staff recommended a position of SUPPORT on this item.

Moved by Buscaino; seconded by Burke; unanimously approved

Ayes: Burke, Buscaino, Mitchell, Rutherford

Noes: None

Abstain: None

Absent: Parker, Perez

6. AB 142 (C. Garcia) Lead-acid batteries

Ms. Denise Peralta Gailey, Public Affairs Manager, presented information on AB 142 to the Committee. The bill would increase the consumer and manufacturer lead-acid battery fee from \$1 to \$2 and would provide that the fee continue indefinitely.

Monies generated by the fee would be deposited into the “Lead Acid Battery Clean-up Fund” and used for activities relating to the clean-up of contamination caused by lead-acid batteries throughout the state. The funds generated by the fee would be required to be used for such contamination cleanup before any repayment of previous loans from the General Fund for toxic cleanup is made. The bill is consistent with SCAQMD’s environmental justice policy priorities and focus on protecting public health.

Staff recommended a position of SUPPORT on this item.

Moved by Buscaino; seconded by Mitchell; approved as recommended by the following vote:

Ayes: Burke, Buscaino, Mitchell

Noes: Rutherford

Abstain: None

Absent: Parker, Perez

Mr. Eder commented on the two state bills presented to the Committee, and mentioned the efforts and funding associated with the toxic cleanup related to the closed Exide battery recycling facility.

WRITTEN REPORT:

7. Report from SCAQMD Home Rule Advisory Group

Please refer to Attachment 6 for the written report

OTHER MATTERS:

8. Other Business

There was no other business.

9. Public Comment Period

Mr. Eder encouraged the use of solar power.

10. Next Meeting Date

The next regular Legislative Committee meeting is scheduled for Friday, March 8, 2019 at 9:00 a.m.

Adjournment

The meeting adjourned at 10:02 a.m.

Attachments

1. Attendance Record
2. Update on Federal Legislative Issues – Written Reports
3. Update on State Legislative Issues – Written Reports
4. FM3 Presentation and Survey
5. Recommend Position on State Bills
6. Report from the SCAQMD Home Rule Advisory Group

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT LEGISLATIVE COMMITTEE MEETING ATTENDANCE RECORD – February 8, 2019

Mayor Judith Mitchell.....	SCAQMD Board Member
Council Member Buscaino (Videoconference).....	SCAQMD Board Member
Dr. William A. Burke (videoconference).....	SCAQMD Board Member
Supervisor Janice Rutherford (videoconference).....	SCAQMD Board Member
Mark Abramowitz.....	Board Consultant (Lyou)
Guillermo Gonzalez.....	Board Consultant (V. Manuel Perez)
Ron Ketcham.....	Board Consultant (McCallon)
Andrew Silva.....	Board Consultant (Rutherford)
Gary Hoitsma (teleconference).....	Carmen Group, Inc.
Amelia Jenkins (teleconference).....	Cassidy & Associates
Dave Ramey (teleconference).....	Kadesh & Associates
Caity Maple (teleconference).....	Quintana, Watts and Hartman
Ross Buckley (teleconference).....	California Advisors, LLC
Paul Gonsalves (teleconference).....	Joe A. Gonsalves & Son
Jessica Alvarenga.....	Pacific Merchant Shipping Association
Harvey Eder.....	Public Solar Power Coalition
Bill LaMarr.....	California Small Business Alliance
Rita Loof.....	RadTech
Bridget McCann.....	Western States Petroleum Association
David Rothbart.....	Los Angeles County Sanitation Districts
Dustin Sifford.....	Orange County Transportation Authority
Rick Sklarz.....	Fairbank, Maslin, Maullin, Metz & Assoc,
Susan Stark.....	Marathon Petroleum
Tammy Yamasaki.....	Southern California Edison
Denny Zane.....	Move LA
Derrick Alatorre.....	SCAQMD Staff
Leeor Alpern.....	SCAQMD Staff
Barbara Baird.....	SCAQMD Staff
Philip Crabbe.....	SCAQMD Staff
Denise Peralta Gailey.....	SCAQMD Staff
Stacy Garcia.....	SCAQMD Staff
Bayron Gilchrist.....	SCAQMD Staff
Sujata Jain.....	SCAQMD Staff
Monika Kim.....	SCAQMD Staff
Megan Lorenz.....	SCAQMD Staff
Matt Miyasato.....	SCAQMD Staff
Ron Moskowitz.....	SCAQMD Staff
Wayne Nastri.....	SCAQMD Staff
Robert Paud.....	SCAQMD Staff
Stacy Pruitt.....	SCAQMD Staff
Sarah Rees.....	SCAQMD Staff
Mary Reichert.....	SCAQMD Staff
Jeanette Short.....	SCAQMD Staff
Laki Tisopulos.....	SCAQMD Staff
Todd Warden.....	SCAQMD Staff
Fabian Wesson.....	SCAQMD Staff
Kim White.....	SCAQMD Staff
Jill Whynot.....	SCAQMD Staff
Paul Wright.....	SCAQMD Staff

ATTACHMENT 2

CASSIDY&ASSOCIATES

733 Tenth Street, N.W., Suite 400
Washington, DC 20001-4886

(202) 347-0773
www.cassidy.com

To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: January 24, 2019

Re: Federal Update

Issues of Interest to SCAQMD

Government Shutdown Update:

Nine Federal Departments and Agencies including the EPA, DOI, FDA and IRS have been shutdown for over a month with no discernable end to the shutdown imminent. The focus of the 116th Congress on ending the shutdown has slowed the organization of the new Democratic majority in the House and held up legislation in the Senate.

EPA Administrator Confirmation Hearing

Despite the shutdown, on January 17, 2019 Environment and Public Works Chairman John Barrasso moved forward with a confirmation hearing for EPA Acting Administrator Andrew Wheeler. The hearing was well attended by both Democrats and Republicans.

In his opening statement Chairman John Barrasso (R-WY) acknowledged that Wheeler had previously been confirmed by the Committee to serve as the Deputy Administrator of the EPA in April 2018 and has served as the Acting Administrator of the Agency for six months. He noted that Wheeler's leadership of the Agency has resulted in significant actions to protect the environment and promote economic growth. He referenced that under Wheeler, the EPA has worked on several common-sense regulatory proposals, included proposed revisions to the Waters of the United States (WOTUS) and rulemaking and implementation of the Toxic Substances Control Act (TSCA) in an effective and efficient manner. Chairman Barrasso also noted the EPA's work on lead exposure issues and efforts to promote greater regulatory certainty and improved enforcement and compliance efforts. He emphasized that Wheeler is well qualified to fill this role and will bring a wealth of experience and expertise to the position.

Ranking Member Thomas Carper (D-DE) noted that the Federal Vacancies Act allows Wheeler to serve as both Acting Administrator and Deputy Administrator of the EPA for an additional 203 days and cited his concern that the Committee is rushing to move forward with his confirmation process during a shutdown. He noted that a number of furloughed EPA employees have been asked to work without pay to prepare the Acting Administrator for this hearing, and said that a speedy confirmation is not more important than the need to ensure the protection of clean air, water and lands. Ranking

Member Carper said that as Acting Administrator, Wheeler has engaged more successfully with Congress and the EPA staff than his predecessor. However, he spoke about the ongoing challenge posed by vehicle emissions and the Trump Administration's efforts to weaken predetermined rules, such as the removal of the legal underpinnings for air quality and toxicity standards. The Ranking Member emphasized that the auto industry, members of Congress and other stakeholders have repeatedly asked for a compromise on a deal between automakers and California on fuel economy and GHG tailpipe standards. He said that he has heard that the Trump administration now plans to finalize a 0.5 percent annual increase in the stringency of the standards, a rate that is 10 times weaker than the current rules. He said that Wheeler's actions show his lack of commitment to protecting the environment and to working with industry partners.

During the Question and Answer portion of the hearing, several Democrats asked the Acting Administrator about the CAFE proposal and car emissions. There were no direct inquiries on the record related to the NOx rule.

The Committee vote on Wheeler's confirmation is scheduled for February 5.

EPA Shutdown Update:

EPA remains almost entirely shutdown as the Interior/EPA Appropriations bill remains outstanding as part of the partial government shutdown. Only 845 of the 13,972 EPA employees are retained for purposes of protecting life and property and/or performing activities required by law. EPA is updating its contingency plan as we speak to increase the number of excepted employees to 891, or 6.37% of its workforce. Among those excepted employees are political appointees tasked with preparing Acting Administrator Wheeler prepare for his confirmation hearing, which was held on January 16. But enforcement activities such as inspections of point sources are not being conducted. While the shutdown persists, comment periods that were already open remain in effect (e.g., their final submission dates will not automatically be pushed back). But EPA cannot formally kick off any new comment periods for rulemakings that may have been close to the Federal Register publication stage. This limitation is apparently affecting EPA's timeline goals for rollbacks of both the 2012 MATS limits for power plants and WOTUS, as both were expected for formal publication in late December/early January.

Select Committee on the Climate Crisis

Representative Kathy Castor (Florida) will chair a new select committee entitled the Select Committee on the Climate Crisis in the 116th Congress. In the 115th Congress, Castor was the Vice Ranking Member on the Energy and Commerce Committee which holds jurisdiction over matters relating to air quality in the House of Representatives. While Castor's leadership of the new select committee will help inform and move the debate on a variety matters related to clean air and environmental justice, the Committee is not expected to hold any formal legislative authority. However, the Select Committee will be having a number of field hearings throughout the country. Members to the Select Committee have not yet been assigned.

SCAQMD Report for February 2019 Legislative Meeting covering January 2019

Kadesh & Associates

Overview

As has been widely reported, Congress and the White House failed to agree on legislation to fund the balance of the FY19 appropriations bills or on an additional Continuing Resolution to fund the government. As a result, a partial government shutdown has been in effect since midnight of December 21. Recall, Congress has not passed seven of the annual appropriations bills: *Ag, Commerce-Justice, Financial Services, Foreign Operations, Homeland Security, Interior, and Transportation-HUD*. The contentious issue is funding for the President's proposed border wall and neither side appears anxious to resolve the issue.

Legislative Action to Reopen the Unfunded Federal Agencies

On January 24, the Senate took cloture votes on two amendments to the House-passed continuing resolution (which would fund the closed portions of the federal government through February 8) and a disaster supplemental appropriations package. Both failed. The first cloture vote was on the Administration's proposal that would have extended Deferred Action for Childhood Arrivals (DACA) and Temporary Protected Status (TPS) for three years in exchange for \$5.7 billion for the wall and/or border structure. The amendment also included the conference reports for the seven remaining Fiscal Year (FY) 2019 appropriations bills (Agriculture, Commerce-Justice, Financial Services, Homeland, Interior, State/Foreign, and Housing and Urban Development) and an emergency supplemental appropriations package that contains over \$12 billion in funding for wildfire and hurricane relief. This cloture vote failed by a vote of 50-47.

The second cloture vote was on an amendment offered by Minority Leader Senator Schumer that was more or less identical to the underlying bill. It contained a continuing resolution through February 8 and a disaster supplemental appropriations package with over \$12 billion in funding for wildfire and hurricane relief. This cloture vote failed by a vote of 52-44. Note that 5 Republicans voted with Democrats.

Following the failure of both amendments, Senators McConnell and Schumer met to determine a path forward. As of this writing (Jan. 24) the general consensus is that they will offer a straight 3-week Continuing Resolution (CR). It is unclear how the Administration will react. The House has now taken ten votes on FY19 appropriations measures since the beginning of January. On January 24, the House voted 231 – 180 on H.J.Res. 31, which would provide for continuing appropriations through February 28 for the Department of Homeland Security.

The House was originally considering voting on a full-year appropriations bill for FY19 Homeland Security, but the legislation was not finalized in time for consideration. Staff is expected to finalize that legislation before the end of January. It is reported that the bill could include up to \$5.7 billion in funding for border security, but no funds would be made available for the construction of any new border wall/fencing.

Major Action in January

The Speaker postponed her invitation to the President to deliver the State of the Union address previously scheduled for January 29 until the federal government reopens. Four Members of the California delegation are now full committee chairs: Financial Services-Maxine Waters; House Administration-Zoe Lofgren; Intelligence-Adam Schiff; and Veterans' Affairs-Mark Takano.

*New House Committee Assignments for California Democrats as of 1/22/19 – Freshmen Members **bolded**.*

Agriculture: Salud Carbajal/ TJ Cox/Josh Harder /Jimmy Panetta	Education & Labor Committee: Josh Harder
Appropriations: Norma Torres	Energy & Commerce: Nanette Diaz Barragan
Armed Services: Gil Cisneros/Katie Hill	Financial Services: Katie Porter
Natural Resources: TJ Cox/Mike Levin	Foreign Affairs Committee: Jim Costa/Juan Vargas
Oversight & Gov't Reform: Ro Khanna/ Katie Hill/Harley Rouda	Judiciary: Lou Correa

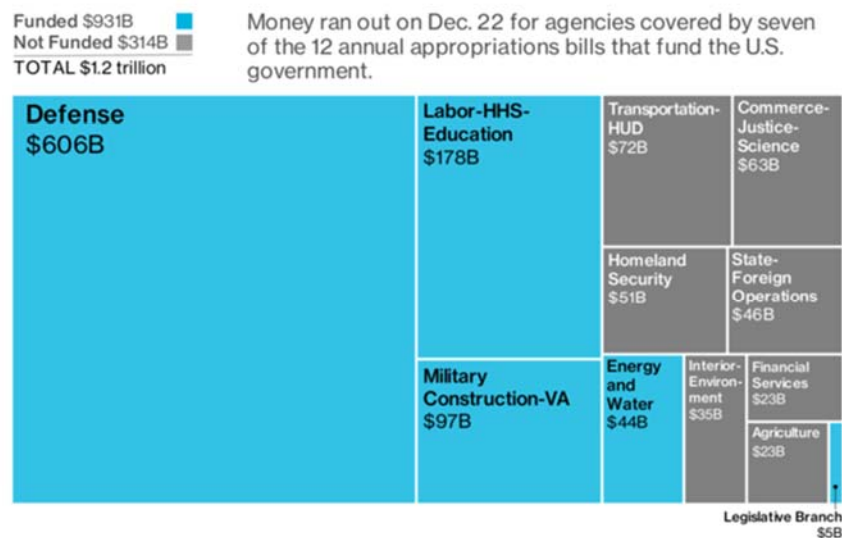
Science Committee: Katie Hill /Brad Sherman	Veterans Affairs: Gil Cisneros /Mike Levin
Transportation & Infrastructure: Salud Carbajal/ Harley Rouda	
Ways & Means: Jimmy Panetta/Jimmy Gomez	

Background:

The U.S. government runs on 12 appropriations bills passed each year by Congress and signed by the president. In fiscal years like this one, when all 12 bills aren't adopted by the Oct. 1 start of the fiscal year (only five were completed on time), Congress and the president keep the machinery of government running by passing short-term extensions called Continuing Resolutions (CRs). They followed that process this time in December, until President Trump demanded that any further extension include \$5.7 billion for his border wall.

Nine federal departments and agencies such as the Federal Aviation Administration, Environmental Protection Agency and Securities and Exchange Commission have been closed since Dec. 22, when their funding ran out. Other pieces of the government, notably the Defense Department, the Department of Labor and the Department of Education, are funded because Congress and Trump had managed to reach agreement on their 2019 appropriations. Still others, like the U.S. Postal Service and U.S. Federal Reserve, have funding streams separate from what Congress provides. In closed departments and agencies, only employees deemed "essential" report to work, and they won't be paid until the shutdown is over. Around 25 percent (as measured by funding, not agencies or people) of the US Government remains closed.

What's Funded and What Isn't



Source: Congressional Budget Office
Notes: Based on House subcommittee allocations. Numbers reflect regular discretionary appropriations subject to spending caps and exclude overseas contingency operations funding.

Bloomberg

Generally speaking, government workers in law enforcement and public safety continue to work -- so air traffic control, medical care of veterans and federal criminal investigations are moving forward during the shutdown. But defining "essential" is more art than science, with individual departments -- and the political appointees who run them -- having a say over who comes to work and who stays home. In theory at least, a federal employee who works during a shutdown, but isn't supposed to, could face fines or a prison term under what's called the Antideficiency Act. At several otherwise closed agencies, the Trump Administration is leaning towards keeping many functions operating, albeit at minimal levels.

the President. Contractors are not guaranteed payment for time that the agencies they serve are closed.

Kevin Hassett, Chairman of the White House Council of Economic Advisers, said the shutdown will cut U.S. economic output by about 0.1 percent every two weeks. That's about in line with an estimate by Bloomberg economists that a government shutdown that lasted two and a half weeks in 2013 subtracted 0.30 percentage point from quarterly gross domestic product.

There have been 13 shutdowns since 1981, ranging from one to 21 days, including a three-day one last January. The longest shutdown until now was 21 days in December 1995 and January 1996.

###

MEMORANDUM

To: South Coast AQMD Legislative Committee

From: Carmen Group

Date: January 25, 2019

Re: Federal Update -- Executive Branch

Agreement Provides Temporary End to Government Shutdown: On January 25, the President announced an agreement with Congressional leaders to at least temporarily end the 35-day partial government shutdown. The agreement provides funding to open the government for three weeks through February 18 without any conditions, during which time negotiations on border security issues are to continue. The President said that if no acceptable agreement on border security is reached by Feb. 18, either the shutdown would be reinstated or presidential emergency powers might be invoked under which funding for border barriers and related security measures could be spent without direct Congressional approval, though likely not without extended litigation brought by opponents of the President's plan. The agreement provides back pay for affected federal workers, relieving some of the immediate pressures caused by the shutdown. The agreement also would seem to clear the way to green-light the traditional annual State of the Union Address, the timing of which had been in doubt so long as the shutdown continued. The agreement came one day after the Senate voted on, but failed to approve, two competing measures (one Republican and one Democratic) designed to permanently end the shutdown on differing terms.

Senate Committee Holds Confirmation Hearing on EPA's Andrew Wheeler: On January 16, the Senate Environment & Public Works Committee held a three-hour hearing on the nomination of Andrew Wheeler to be Administrator of the Environmental Protection Agency. Wheeler, who is currently serving as EPA Acting Administrator, came across as low-key, knowledgeable, and non-confrontational. The expectation is that he will eventually be confirmed in the Republican Senate. For the most part, Committee Democrats expressed disagreement with many aspects of Trump Administration environmental policies, yet were mostly complimentary of Wheeler's demeanor and willingness to listen and discuss opposing points of view. Wheeler argued that the Administration's revised rules on power plant emissions, CAFÉ standards, and Mercury and Air Toxics standards were more in line with the specific requirements of the Clean Air Act and therefore better able to be legally justified. Wheeler highlighted the Clean Trucks Initiative as a major positive for the agency in addressing air pollution in cooperation with the states and the private sector. On CAFÉ, Wheeler said he was sincere in wanting to work for a 50-state solution in cooperation with California. But he offered nothing new to suggest any breakthrough on the issue was imminent. He said the agency is working toward a March 30 deadline to finalize the rule.

White House Holds Internal Meeting on Infrastructure: On January 15, senior staff at the White House, led by National Economic Council Chair Larry Kudlow, held an hour-long meeting to begin charting a path for some form of infrastructure package in the coming year. According to leaked reports about the closed-door meeting, various options were discussed including how to address the issue in the State of the Union Address and possible “pay-fors” such as a hike in the gas tax, where there remains considerable opposition both inside and outside the White House. It was apparently left undecided whether the President would lead with his own specific proposal as he did with little success in 2018, or defer to Congress to take the lead. The President has said he still wants a large proposal in the \$1 trillion range but is now less enamored with any heavy emphasis on public private partnerships as was included in his previous proposal.

Meanwhile, newly emboldened Democrats in the House appear to be moving forward with their own ideas on infrastructure and it is expected the House Transportation Infrastructure Committee and the House Ways and Means Committee will be looking to address infrastructure policy and funding issues in the coming weeks.

One infrastructure-related idea that appears to be gaining some support is a proposal to implement a nationwide pilot program to test a vehicle –miles-traveled (VMT) tax. In a January 24 letter to members of Congress, a group of 18 organizations -- led by the conservative Competitive Enterprise Institute -- urged support for such a program in the context of preserving what it called “the longstanding users-pay-users-benefit principle” as a way to best shore up the future of the Highway Trust Fund.

US Settles with Fiat Chrysler Over Emissions Cheating: On January 10, the Department of Justice, the Environmental Protection Agency (EPA), and the State of California announced a settlement with Fiat Chrysler for alleged violations of the Clean Air Act and California law. Fiat Chrysler has agreed to implement a recall program to repair more than 100,000 noncompliant diesel vehicles sold or leased in the United States, offer an extended warranty on repaired vehicles, and pay a civil penalty of \$305 million to settle claims of cheating emission tests and failing to disclose unlawful defeat devices. Fiat Chrysler also will implement a program to mitigate excess pollution from these vehicles. The recall and federal mitigation programs are estimated to cost up to \$185 million. In a separate settlement with California, Fiat Chrysler will pay an additional \$19 million to mitigate excess emissions from more than 13,000 of the noncompliant vehicles in California. In addition, in a separate administrative agreement with the United States Customs and Border Protection, Fiat Chrysler will pay a \$6 million civil penalty to resolve allegations of illegally importing 1,700 noncompliant vehicles. The Environmental Protection Agency (EPA) and California settlement (EPA/California Settlement) resolves claims of EPA and California relating to Fiat Chrysler's use of defeat devices to cheat emission tests. Defeat devices are design elements (in this case, software functions) installed in vehicles that reduce the effectiveness of the emission control system during normal on-road driving conditions. The affected vehicles are model year 2014 through 2016 Ram 1500 and Jeep Grand Cherokee vehicles equipped with "EcoDiesel" 3.0-liter engines.

###



ATTACHMENT 3

CALIFORNIA ADVISORS, LLC

SCAQMD Report
California Advisors, LLC
February 8, 2019 Legislative Committee Hearing

General Update

As Governor Newsom looks to complete his first month in office, we have begun to see him continue to fill out his administration and have seen a glimpse into his priorities moving forward through his first budget proposal.

As Governor Newsom has started to settle into the horseshoe, he has filled several key positions around him including those that will advise him on environmental issues. He appointed Rachel Machi Wagoner to serve as Deputy Legislative Secretary and who will handle issues related to air quality, climate, and environmental protections. She was previously the Chief Consultant for the Senate Committee on Environmental Quality.

On January 10th, Governor Newsom submitted his first budget proposal. While significant, the proposal is the beginning of a long process that will play out with legislative hearings and a revision released by the Governor in May ("May Revise"). The package, with legislative adjustments, must be finalized by June 15th in time for the Governor to sign the package and the new fiscal year to begin on July 1st. Budget overview hearings will be scheduled in the next couple of weeks with subcommittee hearings scheduled in March/April.

Of note, in this first proposal, the Governor laid out his 2019-20 Cap and Trade Expenditure Plan which included \$637 million dollars of the total \$1.001 billion in cap and trade funding allocated to the Air Resources Board. This figure included \$200 million allocated to AB 617 incentives, \$200 million for Clean Vehicle Rebate Project, \$132 million for Clean Trucks, Buses, and Off-Road Freight Equipment, \$20 million allocated to AB 617 implementation (with an additional \$30 million from other funds), and \$10 million allocated for technical assistance to community groups.

In other news, the California Assembly has gained another Democrat to their ranks raising their number to 61 in the lower house. San Diego Assemblymember Brian Maienschein has announced he will be switching from the Republican Party to the Democratic Party.

New appointments

Senator Bill Monning (D-Carmel): Was appointed to the California Air Resources Board. He fills the vacancy created by Senate Ricardo Lara when he was elected as Insurance Commissioner.

Wade Crowfoot (D-Oakland): Was appointed Secretary of the California Natural Resources Agency. Previously, he was the chief executive officer for the Water Foundation from 2016 to 2018. He also served as a deputy cabinet secretary and senior advisor to Governor Edmund G. Brown Jr. from 2013-2016.

2019 Legislative Update

Sales Tax Ballot Initiative Authorization

California Advisors continues preparation for the introduction of SCAQMD's priority legislation in 2019 related to sales tax authority. We are in the process of working with legislative counsel to draft bill language. We have also assisted SCAQMD staff in reaching out to key staff in the Governor's office, Assembly and Senate leadership, and legislators to start having productive conversations on moving this legislation forward in 2019.

AB 40 (Ting) would require by January 1, 2021 the Air Resources Board to develop a comprehensive strategy to ensure that the sale of new motor vehicles and new light-duty trucks in the state have transitioned fully to zero-emission vehicles by 2040.

AB 210 (Voepel) would exempt from the smog check program all motor vehicles manufactured prior to the 1983 model-year and all diesel-powered vehicles prior to the 1983 model-year with a gross vehicle weight rating of 14,001 pounds or greater.

AB 254 (Quirk-Silva) would authorize the Joint Legislative Committee on Climate Change Policies to recommend that the Air Resources Board provide education and support to local government regarding their local government climate action plans, such as ensuring the use of E85 in flexible fuel vehicles, expanding infrastructure for zero-emission vehicles, and enabling active transportation. The bill would also require the Air Resources Board to develop a simple, factual summary on the distribution of E85 and flexible fuel vehicle registration by April 1, 2020 and would require them to post that summary on their website. The bill also requires the state board to develop policy recommendations to maximize the use of E85 in flexible fuel vehicles.

SB 43 (Allen) would require the Air Resources Board to submit a report to the Legislature on the results of a study, to propose, and to determine the feasibility and practicality of a system to replace the tax imposed pursuant to the Sales and Use Tax

Law with an assessment on retail products sold or used in the state based on the carbon intensity of the product. The bill would require the state board to revise their 2017 scoping plan to reflect the carbon emission reduction benefits that may be realized through this assessment based on carbon intensities of products.



Joe A. Gonsalves & Son

Anthony D. Gonsalves

Jason A. Gonsalves

Paul A. Gonsalves

PROFESSIONAL LEGISLATIVE REPRESENTATION

925 L ST. • SUITE 250 • SACRAMENTO, CA 95814-3766

916 441-0597 • FAX 916 441-5081

Email: gonsalves@gonsalvi.com

TO: South Coast Air Quality Management District

FROM: Anthony, Jason & Paul Gonsalves

SUBJECT: Legislative Update – January 2019

DATE: Tuesday, January 29, 2019

January 7, 2019 marked the first day of session for the 2019-2020 legislative session. Not only does California have a new Governor who was sworn in on January 7, 2019, but the State Assembly recently grew to 61 Democrats.

REPUBLICAN SWITCHES TO DEMOCRAT

On January 24, 2019, San Diego Assemblyman Brian Maienschein, who has served in the Legislature for 6 years as a republican, announced that he has left the California Republican Party and re-registered as a Democrat.

The unexpected decision, announced at a brief Capitol news conference just after the Assembly floor session, boosts the Assembly Democratic caucus to 61. Republicans now hold just 19 seats.

Assemblymember Maienschein said his votes on key issues have “shifted to the left” as the GOP agenda moved in the opposite direction. He cited a number of issues — gun control, immigration, abortion and LGBTQ rights — where he said he was no longer in sync with Republicans.

Assemblymember Maienschein is the 5th member of the Assembly to change parties while in office since 1995. It is also not the first time the San Diego region has seen one of its Assembly members change parties. Assemblymember Maienschein represents some of the same communities as did Nathan Fletcher, a former Republican who became an independent in 2012 and later a Democrat. Fletcher was elected to the San Diego County Board of Supervisors in November 2018.

GOVERNOR APPOINTMENTS

Governor Gavin Newsom announced the appointment of Nathan Fletcher to the California Air Resources Board. Nathan Fletcher, 42, of San Diego, has been a member of the San Diego County Board of Supervisors and the San Diego County Air Pollution Control District since 2019. Since 2013, Fletcher has been a professor of practice in political science at the University of California, San Diego. Fletcher was senior director for global strategic initiatives at Qualcomm from 2013 to 2017. He served as a member of the California State Assembly from 2008 to 2012 and was a member of the United States Marine Corps from 1997 to 2007. He is a member of the San Diego Metropolitan Transit System Board of Directors, the Regional Task Force on the Homeless, and the San Diego Association of Governments' Transportation Committee. This position requires Senate confirmation and there is no compensation.

The Governor also announced 3 appointments to the Commission on Catastrophic Wildfire Cost and Recovery. The five-member commission was established within the Governor's Office of Planning and Research as a result of last year's Senate Bill 901 and requires that the commission hold public meetings with the purpose of evaluating the short- and long-term costs of catastrophic wildfires to the state. The Governor appoints three members to the commission while the Senate Committee on Rules and the Speaker of the Assembly each appoint one member.

Dave Jones, 57, of Sacramento, has been appointed to the Commission on Catastrophic Wildfire Cost and Recovery. Jones served as the California Insurance Commissioner from 2011 to 2019. Prior to his service as Insurance Commissioner, Jones served as a member of the California State Assembly from 2001 to 2010 and of the Sacramento City Council from 1999 to 2001. He was Counsel to U.S. Attorney General Janet Reno from 1996 to 1998, as well as White House Fellow to the U.S. Attorney General from 1995 to 1996. From 1989 to 1995, Jones was an attorney with Legal Services of Northern California, representing low-income families and individuals in affordable housing, civil rights and other legal matters. This position does not require Senate confirmation and there is no compensation.

Michael A. Kahn, 69, of San Francisco, has been appointed to the Commission on Catastrophic Wildfire Cost and Recovery. Kahn has been of counsel at Crowell and Moring LLP since 2009 and was senior counsel at Folger Levin and Kahn LLP from 1979 to 2009. Kahn served as Chair of the California Independent System Operator from 2001 to 2005, Chair of the California Electricity Oversight Board from 2000 to 2001, member of the California State Insurance Commissioner Task Force on Environmental Liability Insurance from 1993 to 1994, member of the California State Insurance Commissioner Task Force on Insurance Industry Practices in 1993 and Commissioner on the California State Senate Commission on Property Tax Equity and Revenue in 1990. This position does not require Senate confirmation and there is no compensation.

Carla Peterman, 40, of Oakland, has been appointed to the Commission on Catastrophic Wildfire Cost and Recovery. Peterman served as a member of the California Public Utilities Commission from 2013 to 2018. She served as a member of

the California Energy Commission from 2011 to 2012. Peterman was a researcher at the University of California Energy Institute from 2006 to 2011, researcher at the Lawrence Berkeley National Laboratory from 2008 to 2010, and a business analyst at Isles from 2004 to 2005. Peterman was an associate in the Investment Banking Division at Lehman Brothers from 2002 to 2004. She earned a Doctor of Philosophy degree in energy and resources from the University of California, Berkeley and Master of Science in environmental change and management and Master of Business Administration degrees from the University of Oxford. This position does not require Senate confirmation and there is no compensation.

CARB – PRODUCT VIOLATIONS

3 companies paid \$1,436,252 to the California Air Resources Board (CARB) for failing to comply with the state's consumer products clean air regulations. The companies are Kraft Heinz Foods Co., Mothers Polishes, Waxes, Cleaners Inc., and CRC Industries Inc. All 3 were selling cleaning products in California that violated air quality regulations.

The violations were all discovered during routine inspections by CARB. Enforcement staff regularly purchase samples of cleaning and other consumer products from retail shelves and test them in the CARB lab to determine if the products comply with air quality regulations.

Neither Kraft Heinz Foods, nor Mothers Polishes, has a history of past violations and CRC is considered a "good actor," going above and beyond with corrective actions. A toxic compound was found in the CRC products case, while the Kraft Heinz Foods and Mothers Polishes tests showed concentrations of volatile organic compounds (VOCs) exceeding the allowed limit for the product. VOCs combine with nitrogen oxide in sunlight to form smog.

2019 LEGISLATIVE CALENDAR

Jan. 1 Statutes take effect

Jan. 7 Legislature reconvenes

Jan. 10 Budget must be submitted by Governor

Jan. 21 Martin Luther King, Jr. Day.

Jan. 25 Last day to submit bill requests to the Office of Legislative Counsel.

Feb. 22 Last day for bills to be introduced

Apr. 11 Spring Recess begins upon adjournment

Apr. 22 Legislature reconvenes from Spring Recess

Apr. 26 Last day for policy committees to meet and report to fiscal committees fiscal bills introduced in their house

May 3 Last day for policy committees to meet and report to the floor non-fiscal bills introduced in their house

May 10 Last day for policy committees to meet prior to June 3

May 17 Last day for fiscal committees to meet and report to the floor bills introduced in their house. Last day for fiscal committees to meet prior to June 3

May 28-31 Floor session only. No committee may meet for any purpose except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees

May 31 Last day for each house to pass bills introduced in that house

June 3 Committee meetings may resume

June 15 Budget Bill must be passed by midnight

July 10 Last day for policy committees to hear and report fiscal bills to fiscal committees

July 12 Last day for policy committees to meet and report bills. Summer Recess begins upon adjournment

Aug. 12 Legislature reconvenes from Summer Recess

Aug. 30 Last day for fiscal committees to meet and report bills

Sept. 3-13 Floor session only. No committees may meet for any purpose, except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees

Sept. 6 Last day to amend bills on the floor

Sept. 13 Last day for any bill to be passed. Interim Recess begins upon adjournment



January 28, 2019

TO: South Coast Air Quality Management District
FROM: Quintana, Watts & Hartmann
RE: January 2019 Report

GENERAL UPDATE:



- The Legislature reconvened on January 7th
- 489 bills introduced to date (not including resolutions and rules)
 - 299 Assembly Bills
 - 6 Assembly Constitutional Amendments
 - 181 Senate Bills
 - 3 Senate Constitutional Amendments
- Legislation of Interest:
 - AB 40 (Ting) - Zero-emission vehicles: comprehensive strategy
 - AB 126 (Cooper) - Air Quality Improvement Program
 - AB 176 (Cervantes) - California Alternative Energy and Advanced Transportation Financing Authority
 - SB 1 (Atkins) - California Environmental, Public Health, and Workers Defense Act of 2019
 - SB 162 (Galgiani) - California Alternative Energy and Advanced Transportation Financing Authority: sales and use taxes: exclusions

POLITICAL ITEMS OF NOTE:



- Jared Blumenfeld has been appointed by Governor Newsom to the California Environmental Protection Agency.
- Senator Bill Monning has been appointed by Senate Pro Tem Toni Atkins to the California Air Resources Board.
- Nathan Fletcher has been appointed by Governor Newsom to the California Air Resources Board.

ATTACHMENT 4

Legislative Committee Meeting
February 8, 2019




**South Coast
AQMD**






South Coast Air Quality Management District Ballot Measure Issues Survey

*Summary of Key Findings from a
Survey of Voters Likely to Cast a Ballot
in the November 2020 election*

CONSULTANT WORKING DRAFT. NOT FOR PUBLICATION.
CA GOVT CODE 6254.


**FAIRBANK, MASLIN,
MAULLIN, METZ
& ASSOCIATES**

220-5215







Methodology

- Dual mode survey of 1,607 registered voters in the South Coast Air Quality Management District
- Interviews were conducted online and via landlines/cell phones
- African-Americans were oversampled
- Interviews were conducted in English and Spanish
- Survey was conducted January 5-14, 2019
- The full sample margin of sampling error is $\pm 2.5\%$ at the 95% confidence interval
- The margin of error for population subgroups will be higher
- Some percentages do not sum to 100% due to rounding
- Select results from a 2018 SCAQMD survey shown for comparison purposes



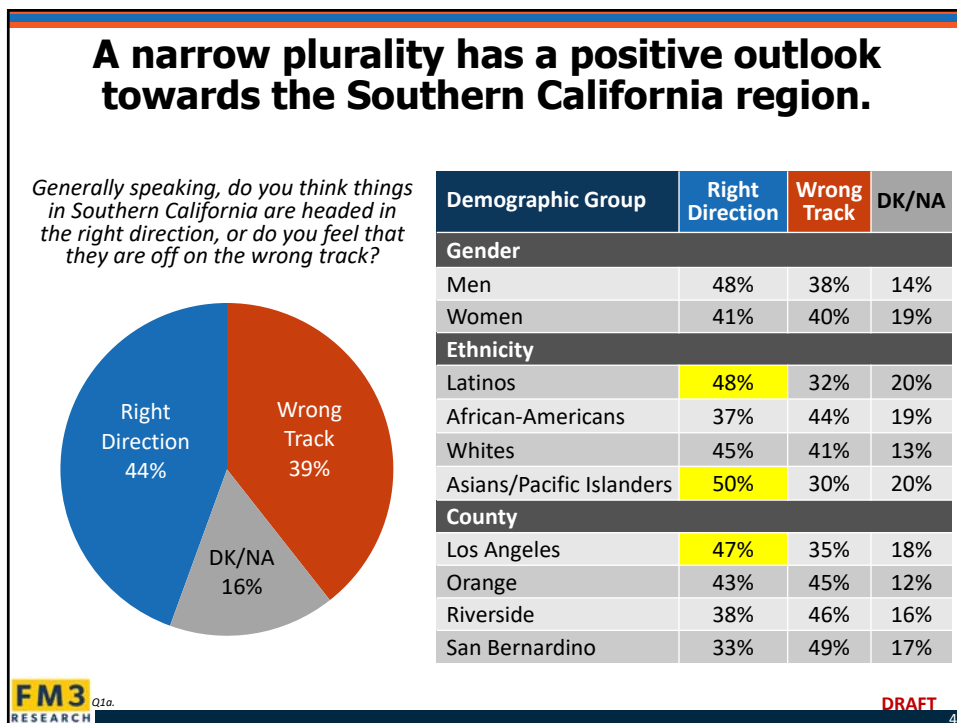
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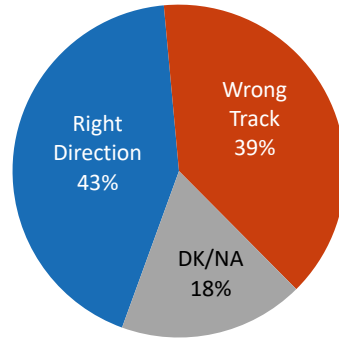
Mood of SCAQMD Voters & Issue Context

DRAFT 3



When asked about their own counties, Orange County residents are most positive while San Bernardino residents are more negative.

Generally speaking, do you think things in Los Angeles/Orange/Riverside/San Bernardino are headed in the right direction, or do you feel that they are off on the wrong track?



Demographic Group	Right Direction	Wrong Track	DK/NA
Gender			
Men	48%	37%	14%
Women	39%	41%	21%
Ethnicity			
Latinos	45%	34%	20%
African-Americans	35%	46%	19%
Whites	44%	40%	16%
Asians/Pacific Islanders	50%	34%	16%
County			
Los Angeles	44%	38%	18%
Orange	49%	40%	11%
Riverside	40%	39%	21%
San Bernardino	26%	47%	28%

FM3
RESEARCH

DRAFT

5

Voters continue to have a more positive reaction to the agency's full name than referring to it with the "AQMD" acronym.


		Very Fav.	Smwt. Fav.	Smwt. Unfav.	Very Unfav.	Can't Rate	NHO/DK	Total Fav.	Total Unfav.
South Coast Air Quality Management District	2019	13%	27%	10%	8%	11%	31%	40%	18%
	2018	13%	25%	9%	7%	9%	37%	37%	17%
The California Air Resources Board	2019	10%	23%	10%	9%	12%	36%	33%	19%
	2018	8%	22%	9%	6%	10%	46%	30%	15%
The AQMD	2019	8%	20%	8%	9%	11%	45%	27%	17%
	2018	10%	16%	6%	6%	9%	52%	26%	12%
Your County Board of Supervisors	2019	6%	29%	15%	11%	17%	23%	35%	26%
	2018	5%	29%	16%	8%	11%	31%	34%	24%

FM3
RESEARCH




Q2. I would like to ask your impressions of some people and organizations active in public life. Please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Split Sample

DRAFT

6



**South Coast
AQMD**

Voter Attitudes Towards an AQMD Ballot Measure

DRAFT 7

Simulated 75-Word AQMD Ballot Label Statement

**SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC
HEALTH IMPROVEMENT MEASURE.**

To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a ½¢ sales tax increase, generating approximately \$1.4 billion annually until ended by voters, requiring audits with funds locally controlled?

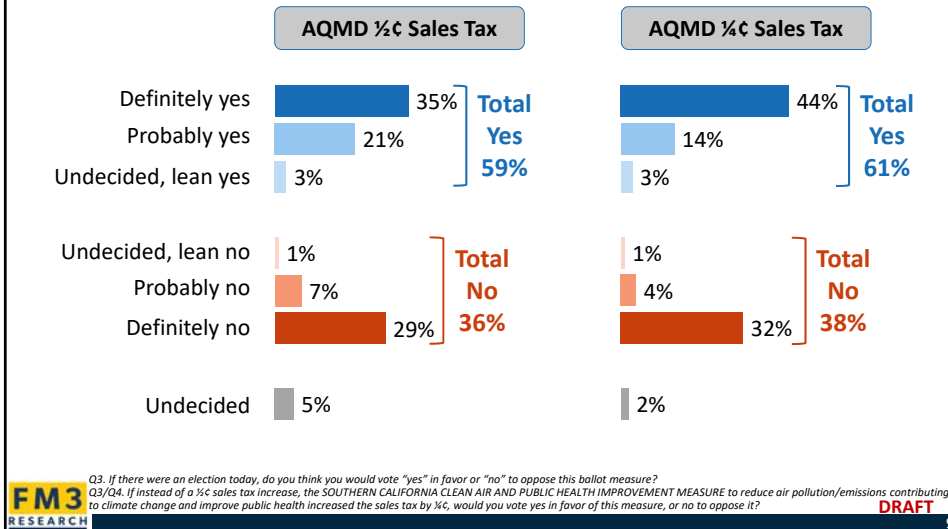
FM3
RESEARCH

Q3. If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure?

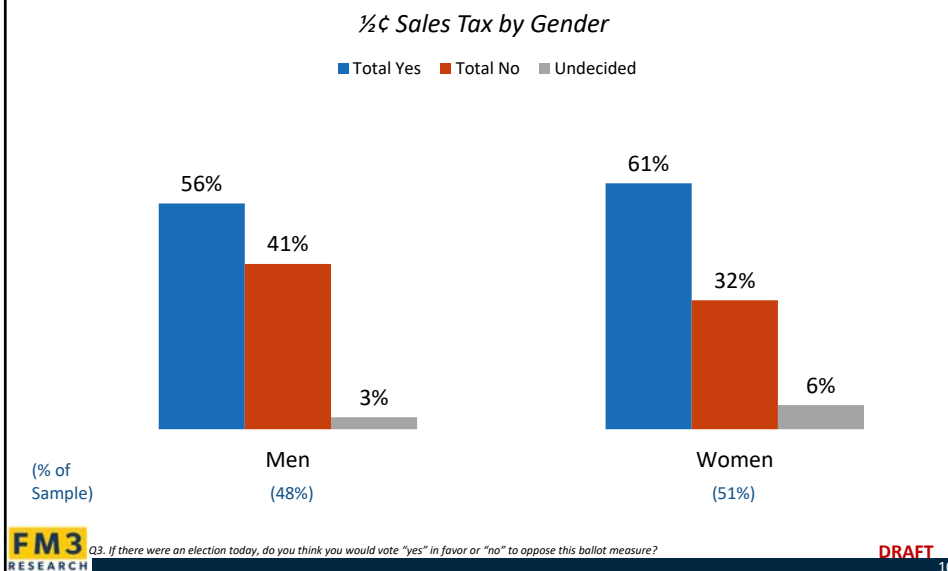


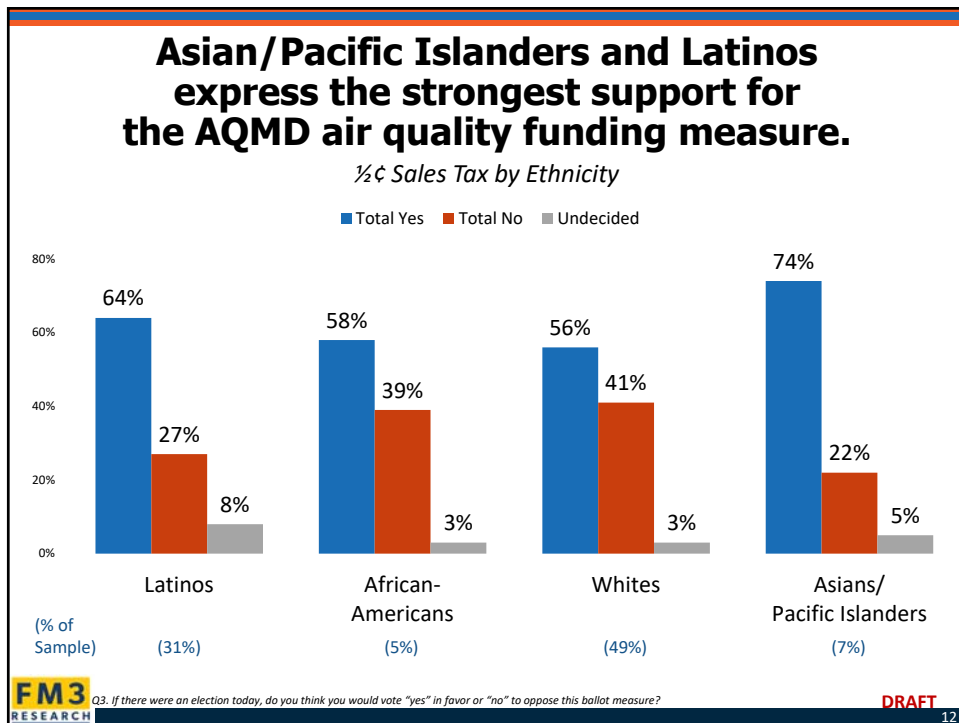
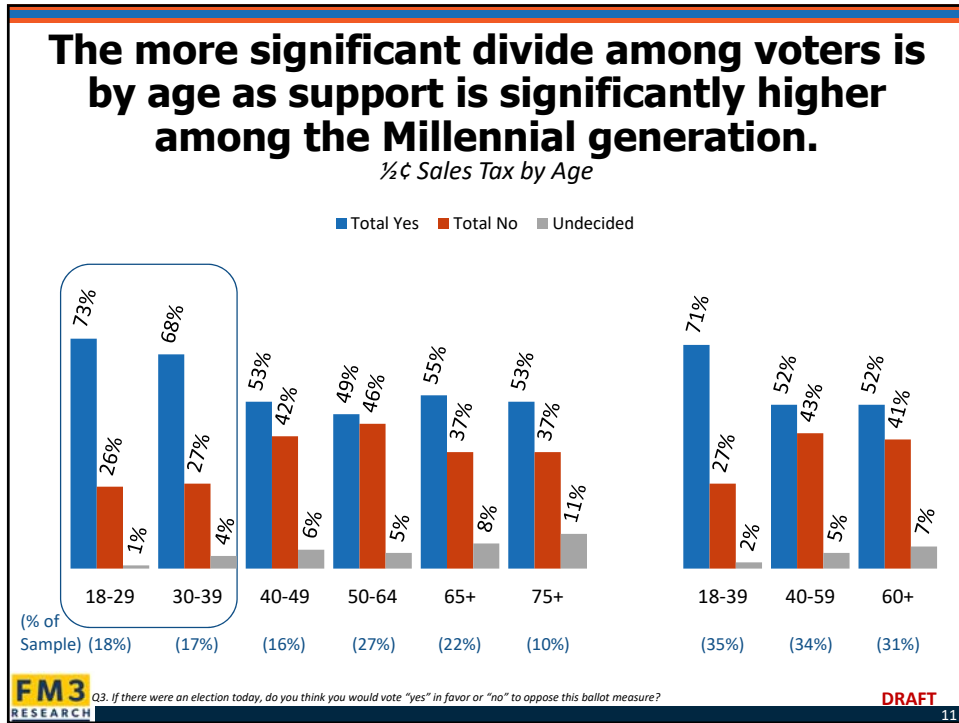
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Roughly six in ten support this proposed sales tax measure to fund programs that will improve air quality throughout Southern California.



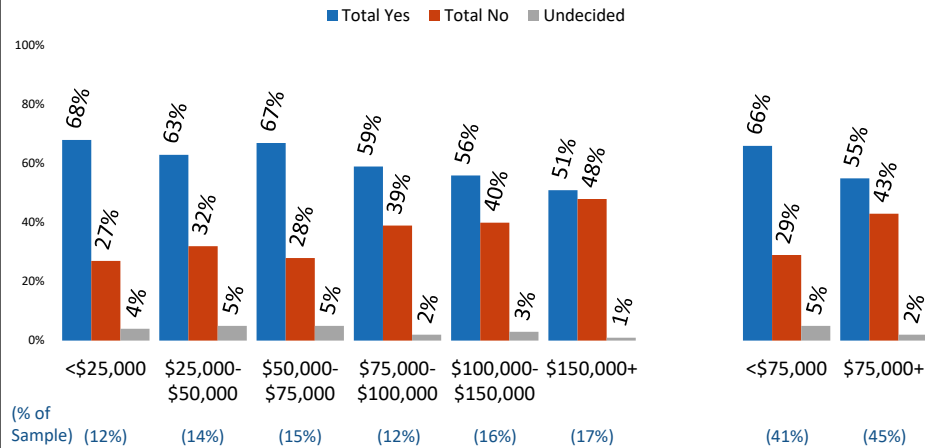
Female voters are somewhat more supportive the air quality sales tax measure than men.





Two-thirds of voters with annual household incomes under \$75K vote in favor of a sales tax increase to improve local air quality.

½¢ Sales Tax by Household Income



FM3
RESEARCH

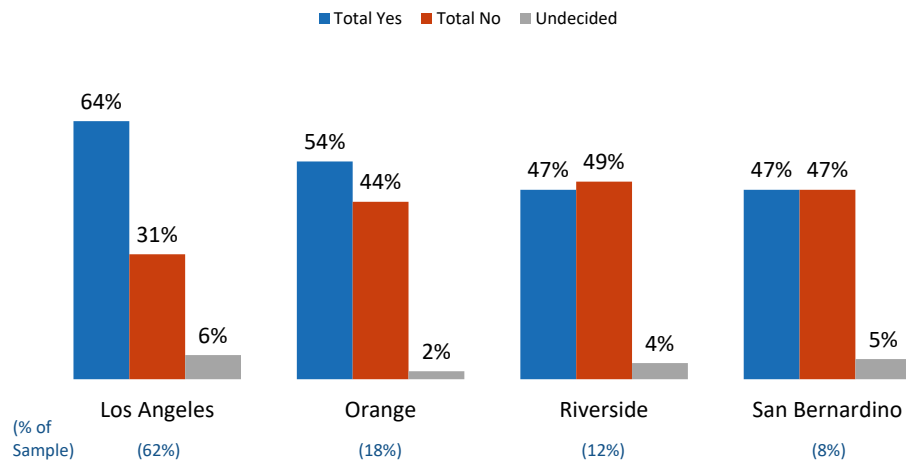
Q3. If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure?

DRAFT

13

By a significant margin, L.A. County voters are the strongest backers of the proposed AQMD ballot measure.

½¢ Sales Tax by County



FM3
RESEARCH

Q3. If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure?

DRAFT

14

Top Uses of AQMD Ballot Measure Funds by County

(Extremely/Very Important)

Use of Ballot Measure Funds	County			
	Los Angeles	Orange	Riverside	San Bernardino
Replacing older diesel school buses in Los Angeles/Orange/Riverside/San Bernardino County school districts with zero emission electric or near-zero emission natural gas buses	73%	59%	55%	61%
Upgrading infrastructure at the Ports of LA and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels	72%	56%	51%	59%
Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy	71%	53%	49%	53%
Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses	68%	63%	53%	54%
Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions	68%	63%	48%	42%
Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy	66%	57%	52%	60%
^Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles	66%	54%	50%	52%

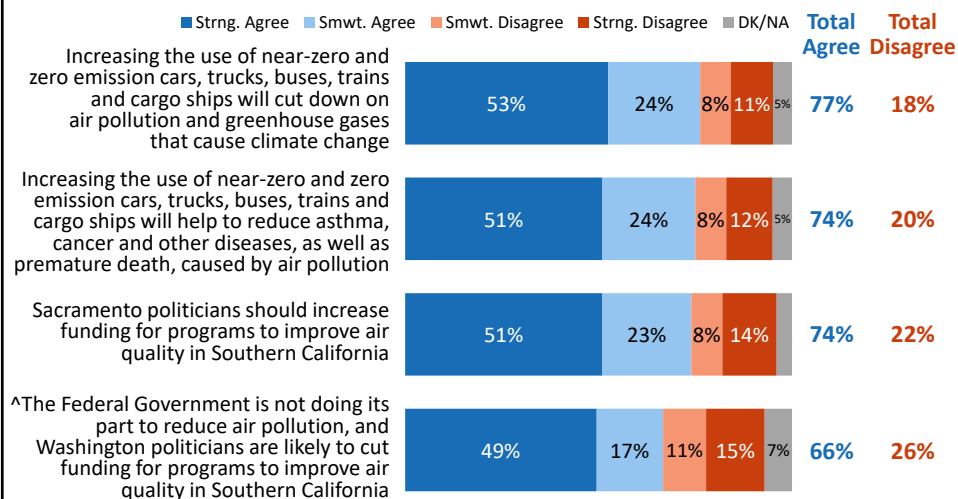
FM3
RESEARCH

Q9a, g, i, k, o, p, t. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. Please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. ^Not Part of Split Sample

DRAFT

15

AQMD voters feel strongly that greater use of near-zero and zero emission vehicles can combat climate change and improve public health.



FM3
RESEARCH

Q8. I am going to read some statements. Please tell me if you agree or disagree with it. ^Not Part of Split Sample

DRAFT

16

The health benefits of increasing the use of near and zero emissions vehicles and AQMD's effective track record resonate with voters.

Statement	All Voters (Total Conv.)	All Voters (Very Conv.)	County (Total Convincing)			
			Los Angeles	Orange	Riverside	San Bernardino
^Health	71%	41%	75%	62%	61%	68%
Effective	75%	38%	79%	69%	63%	71%
^Accountability	70%	38%	74%	64%	62%	66%
^Trucks-Incentives	72%	36%	76%	69%	61%	64%
Traffic Congestion	72%	35%	77%	63%	65%	65%
GHG	68%	35%	71%	70%	54%	58%
Economy & Jobs	69%	32%	74%	65%	57%	58%
Fairness-\$50	61%	30%	64%	62%	53%	49%
Fairness-Goods	56%	26%	60%	50%	45%	47%

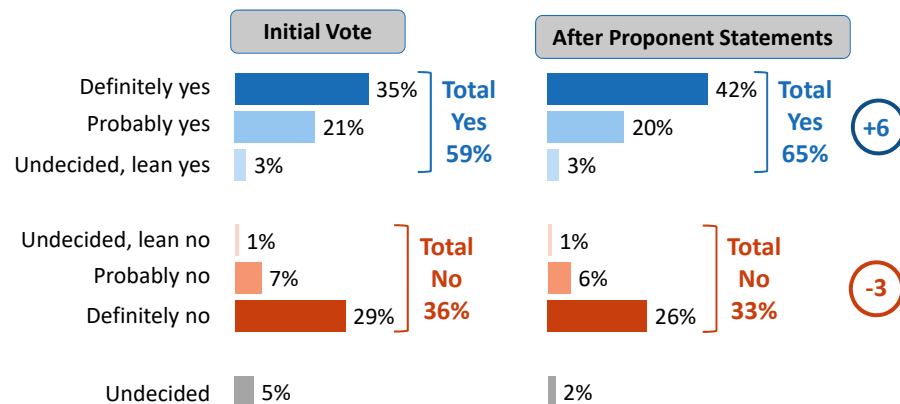
FM3
RESEARCH

Q10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. Please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. *Not Part of Split Sample

DRAFT

17

Support for the AQMD regional air quality ballot measure increased and intensified after voters heard these statements.



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Q3 & Q11. If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure?

DRAFT

18

After opposition statements, support for the ballot measure returns to its original six in ten.

Demographic Groups	Initial Vote		Vote After Proponent Statements		Vote After Opposition Statements	
	Total Yes	Total No	Total Yes	Total No	Total Yes	Total No
All Voters	59%	36%	65%	33%	61%	35%
County						
Los Angeles	64%	31%	70%	28%	67%	29%
Orange	54%	44%	57%	41%	53%	44%
Riverside	47%	49%	58%	40%	45%	50%
San Bernardino	47%	47%	51%	44%	52%	45%

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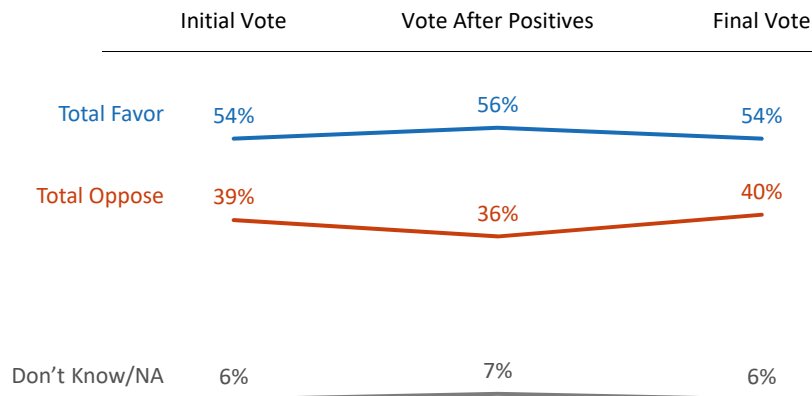
Q3, Q11 & Q14. If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure?

DRAFT

19

There is more support for the sales tax ballot measure this year than there was for the conceptual proposal tested in the 2018 survey.

SCAQMD Sales Tax Proposal – 2018 Survey Results



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Q15, Q21 & Q24.

DRAFT

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For more information, contact:



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Survey

Los Angeles Co

Orange Co

Riverside Co

San Bernardino Co

ATTACHMENT #4 A

Legislative Committee Meeting

February 8, 2019

January 5-14, 2019


**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
BALLOT MEASURE FEASIBILITY SURVEY**
220-5215-WT**N=1,607****MARGIN OF SAMPLING ERROR $\pm 2.5\%$ (95% CONFIDENCE INTERVAL)**

Hello, I'm _____ from _____, a public opinion research company. **(IF VOTER WISHES TO COMPLETE THE INTERVIEW IN SPANISH, HAND OFF TO BILINGUAL INTERVIEWER.)** I am definitely NOT trying to sell you anything or ask for a donation. We are conducting an opinion survey about issues that interest people living in Southern California, and we would like to include your opinions. May I speak to _____? **(YOU MUST SPEAK TO THE VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED, OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely without endangering yourself or others? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely ----- 60%

Yes, cell but cannot talk safely ----- **TERMINATE**

No, not on cell, but own one ----- 33%

No, not on cell and do not own one ----- 6%

(DON'T READ) DK/NA/REFUSED ----- TERMINATE

1. Generally speaking, do you think things in _____ **(READ ITEMS BELOW)** are headed in the right direction, or do you feel that they are off on the wrong track? **(DO NOT ROTATE)**

	<u>RIGHT DIRECTION</u>	<u>WRONG TRACK</u>	<u>(DK/ NA)</u>
a. Southern California -----	44 %	39 %	16 %
b. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] -----	43 %	39 %	18 %

2. Now, I would like to ask your impressions of some people and organizations active in public life. As I read each name, please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Here's the first one... **(IF FAVORABLE/UNFAVORABLE, ASK: "Is that very (FAVORABLE/UNFAVORABLE) or just somewhat?") (RANDOMIZE)**

	<u>VERY FAV</u>	<u>SMWT FAV</u>	<u>SMWT UNFAV</u>	<u>VERY UNFAV</u>	<u>(CAN'T RATE</u>	<u>NEVER HEARD OF/DK</u>	<u>TOTAL FAV</u>	<u>TOTAL UNFAV</u>
(ASK SPLIT SAMPLE A ONLY)								
[]a. (T) South Coast Air Quality Management District -----	13 %	27 %	10 %	8 %	11 %	31 %	40 %	18 %
[]b. (T) The California Air Resources Board -----	10 %	23 %	10 %	9 %	12 %	36 %	33 %	19 %

	VERY FAV	SMWT FAV	SMWT UNFAV	VERY UNFAV	(CAN'T RATE	NEVER HEARD OF/DK	TOTAL FAV	TOTAL UNFAV
(ASK SPLIT SAMPLE B ONLY)								
[]c. (T) The AQMD -----	8%	20%	8%	9%	11%	45%	27%	17%
[]d. (T) Your County Board of Supervisors -----	6%	29%	15%	11%	17%	23%	35%	26%

(RESUME ASKING ALL RESPONDENTS)

3. Next, I am going read you the summary of a measure that may appear on the ballot in a future election. The measure may read as follows: **(READ SLOWLY AND CAREFULLY)**

SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE.
To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----59%

Definitely yes-----35%

Probably yes-----21%

Undecided, lean yes-----3%

TOTAL NO-----36%

Undecided, lean no-----1%

Probably no-----7%

Definitely no-----29%

(DON'T READ) DK/NA -----5%

(ASK Q4 ONLY IF CODED 2-7 Q3)

4. If instead of a one-half cent sales tax increase, the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE to reduce air pollution/emissions contributing to climate change and improve public health increased the sales tax by one-quarter cent, would you vote yes in favor of this measure, or no to oppose it? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q4</u>	<u>Q3/Q4</u>
TOTAL YES -----	41%	61%
Definitely yes -----	13%	44%
Probably yes -----	24%	14%
Undecided, lean yes -----	4%	3%
 TOTAL NO -----	 56%	 38%
Undecided, lean no -----	3%	1%
Probably no -----	9%	4%
Definitely no -----	44%	32%
 (DK/NA) -----	 4%	 2%

(ASK Q5 TO SPLIT SAMPLE A RESPONDENTS ONLY)

5. If this measure was written so the sales tax increase expired after 20 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY -----	19%
Much more likely -----	8%
Somewhat more likely -----	11%
 TOTAL LESS LIKELY -----	 12%
Somewhat less likely -----	4%
Much less likely -----	8%
 MAKES NO DIFF/DK/NA -----	 68%
Makes no difference -----	65%
(DON’T READ) DK/NA -----	4%

(ASK Q6 TO SPLIT SAMPLE B RESPONDENTS ONLY)

6. If this measure was written so the sales tax increase expired after 30 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 24%

Much more likely----- 12%

Somewhat more likely ----- 12%

TOTAL LESS LIKELY ----- 14%

Somewhat less likely -----4%

Much less likely----- 11%

MAKES NO DIFF/DK/NA ----- 61%

Makes no difference----- 58%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

7. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects that improved local light-rail transit and upgraded regional commuter rail systems in Southern California, would that make you more likely or less likely to vote Yes to approve the measure? **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 59%

Much more likely----- 38%

Somewhat more likely ----- 21%

TOTAL LESS LIKELY ----- 15%

Somewhat less likely -----4%

Much less likely----- 11%

MAKES NO DIFF/DK/NA ----- 26%

Makes no difference----- 23%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

8. Next, I am going to read some statements. For each one, please tell me if you agree or disagree with it. **(IF AGREE/DISAGREE, ASK: “Is that strongly (AGREE/DISAGREE) or just somewhat?”)**
(RANDOMIZE)

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
[]a. Cities and counties across Southern California may lose billions of dollars in federal highway funding, as well as suffer from other federal sanctions, if our region does not meet federal clean air standards -----	20%	24%	14%	15%	27%	44%	29%
[]b. The Federal Government is not doing its part to reduce air pollution, and Washington politicians are likely to cut funding for programs to improve air quality in Southern California -----	49%	17%	11%	15%	7%	66%	26%
(ASK SPLIT SAMPLE A ONLY)							
[]c. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will help to reduce asthma, cancer and other diseases, as well as premature death, caused by air pollution -----	51%	24%	8%	12%	5%	74%	20%
[]d. Providing financial incentives to local manufacturers to develop near-zero and zero emission technology will help the local economy and create new economic opportunities -----	47%	28%	9%	12%	5%	74%	21%
[]e. [INSERT NAME OF RESPONDENT’S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County does not receive its fair share to fund programs that would reduce air pollution and improve local air quality -----	24%	17%	11%	13%	35%	41%	24%
[]f. Sacramento politicians should increase funding for programs to improve air quality in Southern California -----	51%	23%	8%	14%	4%	74%	22%

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will cut down on air pollution and greenhouse gases that cause climate change-----	53%	24%	8%	11%	5%	77%	18%
[]h. Building new light-rail transit service in each Southern California county as well as expanding Metrolink, our regional commuter rail system, would help to improve air quality, reduce traffic congestion and create thousands of good local jobs -----	48%	29%	6%	11%	5%	77%	17%
[]i. (PT) It is more expensive to deal with the health problems associated with air pollution than it is to fund programs that support the development and accelerated use of clean, zero and near-zero emission vehicles -----	38%	22%	12%	15%	13%	60%	26%
[]j. State government is not doing its part to reduce air pollution -----	22%	21%	27%	15%	14%	44%	42%
[]k. Air pollution is worse in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County than it is in the rest of Southern California -----	29%	23%	18%	17%	13%	52%	34%
(ASK ONLY TO VOTERS IN SAN BERNARDINO & RIVERSIDE COUNTIES)							
[]l. The high number of trucks going to and from distribution centers across the Inland Empire have a significant negative impact on local air quality -----	41%	25%	12%	16%	6%	66%	28%
(ASK ONLY TO VOTERS IN LOS ANGELES & ORANGE COUNTIES)							
[]m. Cargo ships, trains and trucks going in and out of the Ports of L.A. and Long Beach have a significant negative impact on local air quality -----	37%	29%	12%	10%	13%	65%	21%

(RESUME ASKING ALL RESPONDENTS)

NOW I WOULD LIKE TO RETURN TO THE SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE THAT WE DISCUSSED EARLIER. AS YOU MAY RECALL, THIS MEASURE WOULD EXPAND FINANCIAL INCENTIVE PROGRAMS IMPLEMENTED BY AQMD TO REDUCE EMISSIONS FROM AIR POLLUTION SOURCES LIKE CARS, BUSES, TRUCKS, TRAINS AND CARGO FACILITIES THAT CAUSE AIR POLLUTION AND EMISSIONS THAT CONTRIBUTE TO CLIMATE CHANGE BY ACCELERATING THE DEVELOPMENT AND INCREASING THE USE OF NEAR-ZERO AND ZERO EMISSION VEHICLES AND EQUIPMENT IN LOS ANGELES, RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES, THROUGH A HALF CENT SALES TAX INCREASE.

9. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. After I read each one, please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. **(RANDOMIZE)**

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
[Ja. Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles-----	33%	28%	21%	15%	3%	61%
(ASK SPLIT SAMPLE A ONLY)						
[Jb. Converting Port of L.A. and Long Beach cargo equipment and vehicles to near-zero and zero emission technology -----	28%	27%	27%	14%	3%	55%
[Jc. Retrofitting ships with emission control systems to reduce air pollution in the Ports of L.A. and Long Beach -----	26%	28%	26%	16%	4%	54%
[Jd. Replacing medium-duty diesel delivery trucks with new, fully-electric battery-powered zero emission medium-duty vehicles-----	29%	27%	26%	15%	2%	57%
[Je. Providing financial incentives for car buyers to purchase zero-emission and advanced hybrid-electric cars -----	29%	29%	23%	18%	1%	58%
[Jf. Providing incentives for single truck owners to buy the cleanest truck equipment and vehicles available -----	24%	30%	27%	16%	2%	55%
[Jg. Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses-----	35%	29%	21%	13%	2%	64%
[Jh. Providing funding to help build dedicated lanes for 18-wheelers and other heavy-duty trucks on freeways and highways to relieve traffic congestion and reduce air pollution-----	26%	26%	25%	21%	3%	52%

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
(ASK SPLIT SAMPLE A ONLY CON'T)						
[]i. Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions -----	32 %	31 %	20 %	15 %	2 %	63 %
[]j. Providing financial incentives to speed up the transition of heavy-duty diesel trucks to near-zero emission natural gas, and/or zero emission electric or hydrogen fuel-cell trucks -----	29 %	30 %	24 %	16 %	1 %	58 %
[]k. Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy -----	30 %	33 %	25 %	10 %	2 %	63 %
(ASK SPLIT SAMPLE B ONLY)						
[]l. Replacing older trains with new cleaner models to reduce emissions -----	26 %	33 %	26 %	14 %	2 %	59 %
[]m. Providing incentives to ensure that the cleanest and lowest emitting ships that help reduce air pollution are directed to the Ports of L.A. and Long Beach-----	25 %	30 %	24 %	17 %	4 %	55 %
[]n. Funding incentives for the early changeover of heavy-duty diesel trucks to near-zero emission natural gas trucks and/or zero emission electric or hydrogen fuel-cell trucks -----	28 %	31 %	22 %	16 %	3 %	60 %
[]o. Upgrading infrastructure at the Ports of L.A. and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels -----	29 %	37 %	18 %	13 %	3 %	66 %
[]p. Replacing older diesel school buses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County school districts with zero emission electric or near-zero emission natural gas buses-----	33 %	35 %	19 %	12 %	1 %	67 %
[]q. Funding programs to help small businesses upgrade to cleaner equipment to help the economy and reduce air pollution at the same time -----	27 %	33 %	23 %	15 %	2 %	60 %
[]r. Electrifying and expanding local light-rail transit lines -----	30 %	32 %	21 %	15 %	3 %	61 %
[]s. Requiring the district to distribute funds generated by a sales tax increase in proportion to each County's population-----	20 %	31 %	22 %	20 %	7 %	51 %

	<u>EXT IMPT</u>	<u>VERY IMPT</u>	<u>SMWT IMPT</u>	<u>NOT TOO IMPT</u>	<u>(DK/ NA)</u>	<u>EXT/ VERY</u>
(ASK SPLIT SAMPLE B ONLY CON'T)						
[]t. Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy -----	32 %	30 %	21 %	15 %	2 %	62 %
[]u. Providing funding for alternative fueling and electric vehicle charging stations and infrastructure-----	27 %	32 %	23 %	16 %	1 %	60 %

(RESUME ASKING ALL RESPONDENTS)

10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]a. (HEALTH) The air in Southern California's 4-county South Coast region is among the nation's most polluted and exceeds federal health-based air quality standards about 40 percent of the year. Long-term exposure to polluted air can lead to heart and lung illnesses and diseases like asthma, emphysema, and cancer. Passing this measure will help to speed up the transition to near-zero and zero emission vehicles to reduce air pollution and emissions that pose serious health risks. -----	41 %	29 %	13 %	13 %	3 %	71 %
[]b. (TRUCKS-INCENTIVES) Air pollution emissions from heavy-duty, diesel-powered trucks account for 52 percent of all on-road mobile emissions and 31 percent of overall mobile source emissions, which includes off-road sources like ships, trains, construction equipment, and planes in the South Coast region. This ballot measure will allow AQMD to expand incentive programs to truckers and their companies to accelerate their switch to natural gas, electric and other near-zero or zero emission vehicles critical to reducing air pollution and combating emissions that cause climate change. -----	36 %	36 %	13 %	11 %	4 %	72 %

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]c. (ACCOUNTABILITY) To make sure funds are spent efficiently, effectively and as promised, the measure requires strict accountability requirements, including the preparation of a spending plan, to ensure transparency and public oversight. This includes annual financial and performance audits, prohibiting Sacramento from taking any of the funds, and local control over funds so every dollar raised is used to improve air quality in the AQMD four county region. -----	38%	32%	12%	15%	3%	70%
(ASK SPLIT SAMPLE A ONLY)						
[]d. (FAIRNESS-\$50) This ballot measure to eliminate unhealthy air pollution in the South Coast region will spread the cost among many, including businesses and tourists, and the sales tax is not applied to essential necessities like housing, groceries and prescription medicine. This ballot measure would only cost the typical household about 50 dollars per year, or less than one dollar per week. -----	30%	31%	16%	20%	3%	61%
[]e. (GHG) Gasoline powered cars, heavy-duty trucks, cargo ships and equipment at the Ports of L.A. and Long Beach, trains and other mobile sources are major sources of greenhouse gas emissions that cause climate change. Passing this measure will enable the AQMD to promote the use of clean technologies to make sure our region is a leader in fighting climate change and creating new economic opportunities for workers. -----	35%	33%	16%	14%	3%	68%
[]f. (ECONOMY & JOBS) This measure requires the AQMD to give preference to companies that base their manufacturing and operations in southern California because our tax dollars should be used to support our local economy. This will encourage new private sector investments that will create good jobs and new opportunities for local workers and small businesses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County. -----	32%	37%	13%	14%	4%	69%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g.	(FAIRNESS-GOODS) About 60 percent of the items coming through the Ports of L.A. and Long Beach stay within the local region. All residents in the South Coast region are consumers of goods and products, which helps our local economy, but these goods, transported by trucks, ships, trains, and planes, cause air pollution throughout Southern California. It is fair and appropriate to ask residents to take responsibility for this pollution by contributing to programs that can help to create cleaner and healthier air for all of us. -----	26%	29%	26%	14%	4%	56%
[]h.	(TRAFFIC CONGESTION) To help reduce traffic congestion throughout the region and at the local level, as well as cutdown on air pollution and create new jobs, this measure funds investments in new local light-rail transit service in each Southern California county and expands Metrolink, our regional commuter rail system, to help get more cars off local freeways and roads.-----	35%	37%	16%	9%	3%	72%
[]i.	(EFFECTIVE) AQMD's grant and incentive programs to reduce air pollution and emissions have improved air quality in the Southland. Summertime smog has been cut to less than one-quarter of what it was in the 1950s, even though the population has tripled and the number of vehicles has increased four-fold since then. This measure will expand these successful programs to replace older, dirtier diesel buses and trucks with 21 st Century zero emission and near-zero emission vehicles. -----	38%	37%	12%	9%	4%	75%
(ASK ONLY TO LOS ANGELES COUNTY VOTERS)							
[]j.	(LA LIVES) Implementing grant and incentive programs to reduce air pollution would prevent over one thousand premature deaths annually of L.A. County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	38%	30%	18%	11%	3%	68%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(LOS ANGELES COUNTY VOTERS, CONT.)						
[]k. (LA SAVINGS) Air pollution costs L.A. County residents and workers up to ten billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated 22 million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	41 %	31 %	13 %	12 %	3 %	72 %
(ASK ONLY TO ORANGE COUNTY VOTERS)						
[]l. (ORANGE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent two hundred premature deaths annually of Orange County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	27 %	30 %	21 %	16 %	5 %	57 %
[]m. (ORANGE SAVINGS) Air pollution costs Orange County residents and workers more than one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	32 %	25 %	19 %	20 %	4 %	57 %
(ASK ONLY TO RIVERSIDE COUNTY VOTERS)						
[]n. (RIVERSIDE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of Riverside County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	24 %	26 %	21 %	23 %	6 %	50 %

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(RIVERSIDE COUNTY VOTERS CONT.)						
[]o. (RIVERSIDE SAVINGS) Air pollution costs Riverside County residents and workers more than two billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated six million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	27%	30%	17%	22%	4%	57%
(ASK ONLY TO SAN BERNARDINO COUNTY VOTERS)						
[]p. (SAN BERNARDINO LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of San Bernardino County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	26%	33%	18%	20%	4%	59%
[]q. (SAN BERNARDINO SAVINGS) Air pollution costs San Bernardino County residents and workers one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	30%	29%	15%	24%	3%	59%

(RESUME ASKING ALL RESPONDENTS)

11. Having heard this, let me ask you again about the about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----65%
 Definitely yes-----42%
 Probably yes-----20%
 Undecided, lean yes-----3%

TOTAL NO-----33%
 Undecided, lean no-----1%
 Probably no-----6%
 Definitely no-----26%

(DON'T READ) DK/NA-----2%

(ASK Q12 ONLY TO RESPONDENTS CODED 2-7 IN Q11)

12. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects by improving local light-rail transit and upgrading regional commuter rail systems in Southern California, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q12</u>	<u>Q11/Q12</u>
TOTAL YES-----	43%	65%
Definitely yes-----	11%	48%
Probably yes-----	28%	14%
Undecided, lean yes-----	4%	2%
TOTAL NO-----	51%	31%
Undecided, lean no-----	2%	1%
Probably no-----	10%	4%
Definitely no-----	39%	26%
(DK/NA)-----	6%	4%

(RESUME ASKING ALL RESPONDENTS)

13. Here are some statements from people who oppose this ballot measure. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not convincing as a reason to vote no. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE A ONLY)						
[]a. (MORE TAXES) Californians already pay some of the highest income and sales taxes in the nation, the state gas tax was raised 12 cents last year and the new federal tax law significantly reduces Californians' deductions. -----	39%	25%	21%	10%	5%	64%
[]b. (WASTE AND PENSIONS) If the AQMD has the authority to raise our local taxes, they will do what every government agency does—waste our money. In addition, instead of using these funds to reduce air pollution, most of it will end up going towards public employees' pension and retirement benefits. -----	29%	22%	25%	20%	5%	51%
[]c. (SOME WON'T PAY) Some cities within AQMD already are taxed at the maximum rate allowed by law and this measure will not increase their taxes. However, those cities will still get the benefit from taxes imposed on other cities. -----	20%	28%	27%	17%	8%	48%
(ASK SPLIT SAMPLE B ONLY)						
[]d. (UNFAIR) This measure is unfair to Southern California residents who are doing their part to reduce air pollution by carpooling, using public transportation, riding a bike or driving electric vehicles. Furthermore, higher sales taxes will hurt those who can least afford it, low-income families and seniors struggling with the high cost of living and rising housing prices. -----	35%	30%	22%	9%	5%	64%
[]e. (OUT OF STATE) Most of the manufacturing for zero emission and near zero emission technology occurs out of state. This tax measure will just divert funds out of the local economy, once again taking middle class jobs out of state. -----	22%	28%	28%	14%	8%	51%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(SPLIT SAMPLE B ONLY, CONT.)						
[]f. (CORPORATE WELFARE) The AQMD wants to raise taxes on Southern California residents and then give our money to trucking and cargo companies to pay for new equipment. This corporate welfare is how big business rigs the system at the expense of working families.-----	26%	27%	25%	16%	6%	54%
(ASK ITEM g ONLY TO VOTERS IN RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES)						
[]g. (FAIR SHARE) This measure raises taxes on all Southern California residents, but the vast majority of money is likely to be spent in L.A. County. The AQMD has produced no plan and has failed to provide specific information detailing how funds will be distributed fairly among the four counties.-----	35%	35%	17%	7%	6%	70%

(RESUME ASKING ALL RESPONDENTS)

14. Sometimes over the course of a survey like this one people change their minds and sometimes they do not. Let me ask you one more time about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----61%
 Definitely yes-----39%
 Probably yes-----19%
 Undecided, lean yes-----3%

TOTAL NO-----35%
 Undecided, lean no-----2%
 Probably no-----7%
 Definitely no-----27%

(DON'T READ) DK/NA-----4%

HERE ARE MY FINAL QUESTIONS. THEY ARE JUST FOR CLASSIFICATION PURPOSES.

15. Do you have children? **(IF YES, ASK: "Do you have any children under the age of 19 living at home?")**

Yes, children under 19 at home----- 23%
Yes, no children under 19 at home----- 25%
No, no children ----- 50%
(DON'T READ) DK/NA/REFUSED -----3%

16. With which racial or ethnic group do you identify yourself? **(READ RESPONSES)**

Hispanic/Latino ----- 31%
African-American or Black -----5%
Anglo/White ----- 49%
Asian/Pacific Islander-----7%
Something else -----3%
(DON'T READ) Refused/NA -----5%

17. What was the last level of school you completed?

Grades 1-8 -----5%
Grades 9-11 -----2%
High school graduate-----8%
Some college/business/vocational school ----- 24%
College graduate ----- 32%
Post-graduate work/professional school ----- 25%
(DON'T READ) Don't know -----3%

18. I don't need to know the exact amount, but I'm going to read you some categories for household income. Would you please stop me when I have read the category indicating the total combined income for all the people in your household before taxes in 2018?

\$25,000 and under----- 12%
\$25,001 - \$50,000 ----- 14%
\$50,001 - \$75,000 ----- 15%
\$75,001 - \$100,000 ----- 12%
\$100,001 - \$150,000 ----- 16%
More than \$150,000----- 17%
(DON'T READ) Refused/NA ----- 14%

THANK YOU FOR PARTICIPATING IN OUR SURVEY
--

Gender:	Male----- 48%
	Female----- 51%
	Other/Prefer not to say -----0%

Language of Interview	English----- 96%
	Spanish -----4%

Party Registration: From file	Democrat----- 48%
	Republican ----- 25%
	No Party Preference----- 23%
	Other -----5%

STATEWIDE FLAGS

G08 -----	57%
P10-----	29%
G10 -----	51%
P12-----	30%
G12 -----	64%
P14-----	29%
G14 -----	48%
P16-----	57%
G16 -----	86%
P18-----	61%
BLANK -----	5%

PERMANENT ABSENTEE

Yes-----	63%
No-----	37%

VOTE BY MAIL

1 -----	17%
2 -----	11%
3+ -----	24%
BLANK -----	47%

AGE

18-29 -----	18%
30-39 -----	17%
40-49 -----	16%
50-54 -----	9%
55-59 -----	9%
60-64 -----	9%
65-74 -----	13%
75+ -----	10%
BLANK -----	0%

OWN/RENT

Own-----	54%
Rent -----	46%

FOREIGN BORN

Yes -----	27%
No -----	73%

HOUSEHOLD PARTY

1 DEM -----	28%
2+ DEMS -----	12%
1 REP-----	10%
2+ REPS -----	9%
1 INDEPENDENT-----	16%
MIXED-----	25%

COUNTY

Los Angeles -----	62%
Orange-----	18%
San Bernardino-----	8%
Riverside -----	12%

INTERVIEW MODE

Phone -----	50%
Online -----	50%

A/B SPLIT

Split A -----	50%
Split B -----	50%

January 5-14, 2019



<p align="center"> SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT BALLOT MEASURE FEASIBILITY SURVEY 220-5215-WT N=722 LOS ANGELES COUNTY MARGIN OF SAMPLING ERROR $\pm 4.1\%$ (95% CONFIDENCE INTERVAL) </p>

Hello, I'm _____ from _____, a public opinion research company. **(IF VOTER WISHES TO COMPLETE THE INTERVIEW IN SPANISH, HAND OFF TO BILINGUAL INTERVIEWER.)** I am definitely NOT trying to sell you anything or ask for a donation. We are conducting an opinion survey about issues that interest people living in Southern California, and we would like to include your opinions. May I speak to _____? **(YOU MUST SPEAK TO THE VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED, OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely without endangering yourself or others? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely ----- 60%
 Yes, cell but cannot talk safely ----- **TERMINATE**
 No, not on cell, but own one ----- 32%
 No, not on cell and do not own one ----- 8%
(DON'T READ) DK/NA/REFUSED----- TERMINATE

1. Generally speaking, do you think things in _____ **(READ ITEMS BELOW)** are headed in the right direction, or do you feel that they are off on the wrong track? **(DO NOT ROTATE)**

	<u>RIGHT DIRECTION</u>	<u>WRONG TRACK</u>	<u>(DK/ NA)</u>
a. Southern California -----	47%	35%	18%
b. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] -----	44%	38%	18%

2. Now, I would like to ask your impressions of some people and organizations active in public life. As I read each name, please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Here's the first one... **(IF FAVORABLE/UNFAVORABLE, ASK: "Is that very (FAVORABLE/UNFAVORABLE) or just somewhat?") (RANDOMIZE)**

	<u>VERY FAV</u>	<u>SMWT FAV</u>	<u>SMWT UNFAV</u>	<u>VERY UNFAV</u>	<u>(CAN'T RATE</u>	<u>NEVER HEARD OF/DK</u>	<u>TOTAL FAV</u>	<u>TOTAL UNFAV</u>
(ASK SPLIT SAMPLE A ONLY)								
[]a. (T) South Coast Air Quality Management District -----	12%	27%	10%	6%	12%	32%	40%	16%
[]b. (T) The California Air Resources Board-----	12%	23%	8%	7%	13%	36%	36%	15%

	VERY FAV	SMWT FAV	SMWT UNFAV	VERY UNFAV	(CAN'T RATE	NEVER HEARD OF/DK	TOTAL FAV	TOTAL UNFAV
(ASK SPLIT SAMPLE B ONLY)								
[]c. (T) The AQMD -----	7%	19%	9%	8%	12%	46%	26%	17%
[]d. (T) Your County Board of Supervisors -----	6%	27%	13%	12%	17%	25%	33%	25%

(RESUME ASKING ALL RESPONDENTS)

3. Next, I am going read you the summary of a measure that may appear on the ballot in a future election. The measure may read as follows: **(READ SLOWLY AND CAREFULLY)**

SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE.
To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----64%
Definitely yes-----36%
Probably yes-----25%
Undecided, lean yes-----4%

TOTAL NO-----31%
Undecided, lean no-----1%
Probably no-----7%
Definitely no-----23%

(DON'T READ) DK/NA -----6%

(ASK Q4 ONLY IF CODED 2-7 Q3)

4. If instead of a one-half cent sales tax increase, the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE to reduce air pollution/emissions contributing to climate change and improve public health increased the sales tax by one-quarter cent, would you vote yes in favor of this measure, or no to oppose it? **(IF YES/NO, ASK: "Is that definitely or just probably?")** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: "Do you lean toward voting yes or no?")**

	<u>Q4</u>	<u>Q3/Q4</u>
TOTAL YES -----	48%	66%
Definitely yes -----	15%	47%
Probably yes -----	29%	15%
Undecided, lean yes -----	4%	3%
 TOTAL NO -----	 48%	 33%
Undecided, lean no -----	3%	1%
Probably no -----	10%	4%
Definitely no -----	35%	27%
 (DK/NA) -----	 4%	 2%

(ASK Q5 TO SPLIT SAMPLE A RESPONDENTS ONLY)

5. If this measure was written so the sales tax increase expired after 20 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: "Is that much (MORE/LESS) likely to vote yes or just somewhat?")**

TOTAL MORE LIKELY -----	24%
Much more likely -----	10%
Somewhat more likely -----	14%
 TOTAL LESS LIKELY -----	 13%
Somewhat less likely -----	3%
Much less likely -----	10%
 MAKES NO DIFF/DK/NA -----	 63%
Makes no difference -----	59%
(DON'T READ) DK/NA -----	4%

(ASK Q6 TO SPLIT SAMPLE B RESPONDENTS ONLY)

6. If this measure was written so the sales tax increase expired after 30 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: "Is that much (MORE/LESS) likely to vote yes or just somewhat?")**

TOTAL MORE LIKELY ----- 27%

Much more likely----- 14%

Somewhat more likely ----- 13%

TOTAL LESS LIKELY ----- 14%

Somewhat less likely -----3%

Much less likely----- 11%

MAKES NO DIFF/DK/NA ----- 59%

Makes no difference----- 56%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

7. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects that improved local light-rail transit and upgraded regional commuter rail systems in Southern California, would that make you more likely or less likely to vote Yes to approve the measure? **(IF MORE/LESS LIKELY, ASK: "Is that much (MORE/LESS) likely to vote yes or just somewhat?")**

TOTAL MORE LIKELY ----- 65%

Much more likely----- 43%

Somewhat more likely ----- 22%

TOTAL LESS LIKELY ----- 12%

Somewhat less likely -----4%

Much less likely-----8%

MAKES NO DIFF/DK/NA ----- 23%

Makes no difference----- 20%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

8. Next, I am going to read some statements. For each one, please tell me if you agree or disagree with it. **(IF AGREE/DISAGREE, ASK: "Is that strongly (AGREE/DISAGREE) or just somewhat?") (RANDOMIZE)**

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
[]a. Cities and counties across Southern California may lose billions of dollars in federal highway funding, as well as suffer from other federal sanctions, if our region does not meet federal clean air standards -----	21%	24%	13%	13%	28%	45%	27%
[]b. The Federal Government is not doing its part to reduce air pollution, and Washington politicians are likely to cut funding for programs to improve air quality in Southern California -----	54%	17%	10%	13%	6%	71%	23%
(ASK SPLIT SAMPLE A ONLY)							
[]c. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will help to reduce asthma, cancer and other diseases, as well as premature death, caused by air pollution -----	54%	22%	9%	8%	7%	77%	17%
[]d. Providing financial incentives to local manufacturers to develop near-zero and zero emission technology will help the local economy and create new economic opportunities -----	51%	28%	8%	9%	4%	79%	17%
[]e. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County does not receive its fair share to fund programs that would reduce air pollution and improve local air quality -----	25%	19%	12%	14%	30%	44%	26%
[]f. Sacramento politicians should increase funding for programs to improve air quality in Southern California -----	55%	23%	7%	11%	4%	78%	18%

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will cut down on air pollution and greenhouse gases that cause climate change-----	58%	23%	6%	9%	5%	81%	14%
[]h. Building new light-rail transit service in each Southern California county as well as expanding Metrolink, our regional commuter rail system, would help to improve air quality, reduce traffic congestion and create thousands of good local jobs -----	53%	32%	4%	5%	6%	85%	9%
[]i. (PT) It is more expensive to deal with the health problems associated with air pollution than it is to fund programs that support the development and accelerated use of clean, zero and near-zero emission vehicles -----	42%	21%	11%	12%	13%	63%	24%
[]j. State government is not doing its part to reduce air pollution -----	23%	19%	28%	15%	16%	42%	42%
[]k. Air pollution is worse in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County than it is in the rest of Southern California -----	38%	29%	11%	8%	13%	68%	20%
(ASK ONLY TO VOTERS IN SAN BERNARDINO & RIVERSIDE COUNTIES)							
[]l. The high number of trucks going to and from distribution centers across the Inland Empire have a significant negative impact on local air quality -----	0%	0%	0%	0%	0%	0%	0%
(ASK ONLY TO VOTERS IN LOS ANGELES & ORANGE COUNTIES)							
[]m. Cargo ships, trains and trucks going in and out of the Ports of L.A. and Long Beach have a significant negative impact on local air quality -----	38%	27%	12%	8%	14%	66%	21%

(RESUME ASKING ALL RESPONDENTS)

NOW I WOULD LIKE TO RETURN TO THE SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE THAT WE DISCUSSED EARLIER. AS YOU MAY RECALL, THIS MEASURE WOULD EXPAND FINANCIAL INCENTIVE PROGRAMS IMPLEMENTED BY AQMD TO REDUCE EMISSIONS FROM AIR POLLUTION SOURCES LIKE CARS, BUSES, TRUCKS, TRAINS AND CARGO FACILITIES THAT CAUSE AIR POLLUTION AND EMISSIONS THAT CONTRIBUTE TO CLIMATE CHANGE BY ACCELERATING THE DEVELOPMENT AND INCREASING THE USE OF NEAR-ZERO AND ZERO EMISSION VEHICLES AND EQUIPMENT IN LOS ANGELES, RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES, THROUGH A HALF CENT SALES TAX INCREASE.

9. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. After I read each one, please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. **(RANDOMIZE)**

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
[Ja. Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles-----	37%	29%	19%	12%	3%	66%
(ASK SPLIT SAMPLE A ONLY)						
[Jb. Converting Port of L.A. and Long Beach cargo equipment and vehicles to near-zero and zero emission technology -----	31%	28%	27%	10%	4%	59%
[Jc. Retrofitting ships with emission control systems to reduce air pollution in the Ports of L.A. and Long Beach -----	27%	32%	26%	12%	4%	59%
[Jd. Replacing medium-duty diesel delivery trucks with new, fully-electric battery-powered zero emission medium-duty vehicles-----	33%	29%	24%	12%	2%	62%
[Je. Providing financial incentives for car buyers to purchase zero-emission and advanced hybrid-electric cars -----	33%	31%	23%	12%	1%	64%
[Jf. Providing incentives for single truck owners to buy the cleanest truck equipment and vehicles available -----	27%	30%	30%	11%	2%	57%
[Jg. Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses-----	39%	29%	22%	9%	2%	68%
[Jh. Providing funding to help build dedicated lanes for 18-wheelers and other heavy-duty trucks on freeways and highways to relieve traffic congestion and reduce air pollution-----	26%	29%	25%	17%	3%	55%

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
(ASK SPLIT SAMPLE A ONLY CON'T)						
[]i. Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions -----	37%	31%	21%	10%	1%	68%
[]j. Providing financial incentives to speed up the transition of heavy-duty diesel trucks to near-zero emission natural gas, and/or zero emission electric or hydrogen fuel-cell trucks -----	31%	32%	24%	11%	1%	63%
[]k. Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy -----	32%	38%	22%	6%	1%	71%
(ASK SPLIT SAMPLE B ONLY)						
[]l. Replacing older trains with new cleaner models to reduce emissions -----	27%	36%	23%	12%	1%	63%
[]m. Providing incentives to ensure that the cleanest and lowest emitting ships that help reduce air pollution are directed to the Ports of L.A. and Long Beach-----	27%	33%	22%	14%	3%	61%
[]n. Funding incentives for the early changeover of heavy-duty diesel trucks to near-zero emission natural gas trucks and/or zero emission electric or hydrogen fuel-cell trucks -----	33%	33%	19%	13%	3%	65%
[]o. Upgrading infrastructure at the Ports of L.A. and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels -----	32%	40%	14%	11%	3%	72%
[]p. Replacing older diesel school buses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County school districts with zero emission electric or near-zero emission natural gas buses-----	37%	36%	16%	10%	1%	73%
[]q. Funding programs to help small businesses upgrade to cleaner equipment to help the economy and reduce air pollution at the same time -----	29%	36%	21%	14%	1%	65%
[]r. Electrifying and expanding local light-rail transit lines -----	32%	37%	18%	10%	3%	69%
[]s. Requiring the district to distribute funds generated by a sales tax increase in proportion to each County's population-----	21%	34%	21%	18%	6%	55%

	<u>EXT IMPT</u>	<u>VERY IMPT</u>	<u>SMWT IMPT</u>	<u>NOT TOO IMPT</u>	<u>(DK/ NA)</u>	<u>EXT/ VERY</u>
(ASK SPLIT SAMPLE B ONLY CON'T)						
[]t. Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy -----	33 %	33 %	20 %	13 %	1 %	66 %
[]u. Providing funding for alternative fueling and electric vehicle charging stations and infrastructure-----	29 %	37 %	22 %	12 %	1 %	66 %

(RESUME ASKING ALL RESPONDENTS)

10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]a. (HEALTH) The air in Southern California's 4-county South Coast region is among the nation's most polluted and exceeds federal health-based air quality standards about 40 percent of the year. Long-term exposure to polluted air can lead to heart and lung illnesses and diseases like asthma, emphysema, and cancer. Passing this measure will help to speed up the transition to near-zero and zero emission vehicles to reduce air pollution and emissions that pose serious health risks. -----	45 %	30 %	13 %	9 %	3 %	75 %
[]b. (TRUCKS-INCENTIVES) Air pollution emissions from heavy-duty, diesel-powered trucks account for 52 percent of all on-road mobile emissions and 31 percent of overall mobile source emissions, which includes off-road sources like ships, trains, construction equipment, and planes in the South Coast region. This ballot measure will allow AQMD to expand incentive programs to truckers and their companies to accelerate their switch to natural gas, electric and other near-zero or zero emission vehicles critical to reducing air pollution and combating emissions that cause climate change. -----	38 %	37 %	13 %	8 %	4 %	76 %

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]c. (ACCOUNTABILITY) To make sure funds are spent efficiently, effectively and as promised, the measure requires strict accountability requirements, including the preparation of a spending plan, to ensure transparency and public oversight. This includes annual financial and performance audits, prohibiting Sacramento from taking any of the funds, and local control over funds so every dollar raised is used to improve air quality in the AQMD four county region. -----	40%	35%	11%	12%	3%	74%
(ASK SPLIT SAMPLE A ONLY)						
[]d. (FAIRNESS-\$50) This ballot measure to eliminate unhealthy air pollution in the South Coast region will spread the cost among many, including businesses and tourists, and the sales tax is not applied to essential necessities like housing, groceries and prescription medicine. This ballot measure would only cost the typical household about 50 dollars per year, or less than one dollar per week. -----	31%	32%	16%	17%	3%	64%
[]e. (GHG) Gasoline powered cars, heavy-duty trucks, cargo ships and equipment at the Ports of L.A. and Long Beach, trains and other mobile sources are major sources of greenhouse gas emissions that cause climate change. Passing this measure will enable the AQMD to promote the use of clean technologies to make sure our region is a leader in fighting climate change and creating new economic opportunities for workers. -----	38%	33%	16%	11%	2%	71%
[]f. (ECONOMY & JOBS) This measure requires the AQMD to give preference to companies that base their manufacturing and operations in southern California because our tax dollars should be used to support our local economy. This will encourage new private sector investments that will create good jobs and new opportunities for local workers and small businesses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County. -----	34%	40%	13%	10%	4%	74%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g.	(FAIRNESS-GOODS) About 60 percent of the items coming through the Ports of L.A. and Long Beach stay within the local region. All residents in the South Coast region are consumers of goods and products, which helps our local economy, but these goods, transported by trucks, ships, trains, and planes, cause air pollution throughout Southern California. It is fair and appropriate to ask residents to take responsibility for this pollution by contributing to programs that can help to create cleaner and healthier air for all of us. -----	29%	31%	24%	11%	5%	60%
[]h.	(TRAFFIC CONGESTION) To help reduce traffic congestion throughout the region and at the local level, as well as cutdown on air pollution and create new jobs, this measure funds investments in new local light-rail transit service in each Southern California county and expands Metrolink, our regional commuter rail system, to help get more cars off local freeways and roads.-----	40%	38%	14%	6%	2%	77%
[]i.	(EFFECTIVE) AQMD's grant and incentive programs to reduce air pollution and emissions have improved air quality in the Southland. Summertime smog has been cut to less than one-quarter of what it was in the 1950s, even though the population has tripled and the number of vehicles has increased four-fold since then. This measure will expand these successful programs to replace older, dirtier diesel buses and trucks with 21 st Century zero emission and near-zero emission vehicles. -----	40%	39%	11%	6%	4%	79%
(ASK ONLY TO LOS ANGELES COUNTY VOTERS)							
[]j.	(LA LIVES) Implementing grant and incentive programs to reduce air pollution would prevent over one thousand premature deaths annually of L.A. County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	38%	30%	18%	11%	3%	68%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
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(LOS ANGELES COUNTY VOTERS, CONT.)

[]k. (LA SAVINGS) Air pollution costs L.A. County residents and workers up to ten billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated 22 million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	41 %	31 %	13 %	12 %	3 %	72 %
---	------	------	------	------	-----	------

(ASK ONLY TO ORANGE COUNTY VOTERS)

[]l. (ORANGE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent two hundred premature deaths annually of Orange County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0 %	0 %	0 %	0 %	0 %	0 %
---	-----	-----	-----	-----	-----	-----

[]m. (ORANGE SAVINGS) Air pollution costs Orange County residents and workers more than one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	0 %	0 %	0 %	0 %	0 %	0 %
--	-----	-----	-----	-----	-----	-----

(ASK ONLY TO RIVERSIDE COUNTY VOTERS)

[]n. (RIVERSIDE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of Riverside County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0 %	0 %	0 %	0 %	0 %	0 %
---	-----	-----	-----	-----	-----	-----

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(RIVERSIDE COUNTY VOTERS CONT.)						
[]o. (RIVERSIDE SAVINGS) Air pollution costs Riverside County residents and workers more than two billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated six million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% -----0%-----0% -----0%						0%
(ASK ONLY TO SAN BERNARDINO COUNTY VOTERS)						
[]p. (SAN BERNARDINO LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of San Bernardino County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% -----0%-----0% -----0%						0%
[]q. (SAN BERNARDINO SAVINGS) Air pollution costs San Bernardino County residents and workers one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% -----0%-----0% -----0%						0%

(RESUME ASKING ALL RESPONDENTS)

11. Having heard this, let me ask you again about the about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----70%
Definitely yes-----44%
Probably yes-----24%
Undecided, lean yes-----2%

TOTAL NO-----28%
Undecided, lean no-----1%
Probably no-----6%
Definitely no-----21%

(DON'T READ) DK/NA-----2%

(ASK Q12 ONLY TO RESPONDENTS CODED 2-7 IN Q11)

12. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects by improving local light-rail transit and upgrading regional commuter rail systems in Southern California, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q12</u>	<u>Q11/Q12</u>
TOTAL YES-----	50%	72%
Definitely yes-----	14%	53%
Probably yes-----	32%	17%
Undecided, lean yes-----	4%	2%
TOTAL NO-----	44%	24%
Undecided, lean no-----	2%	1%
Probably no-----	10%	4%
Definitely no-----	32%	20%
(DK/NA)-----	6%	3%

(RESUME ASKING ALL RESPONDENTS)

13. Here are some statements from people who oppose this ballot measure. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not convincing as a reason to vote no. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE A ONLY)						
[]a. (MORE TAXES) Californians already pay some of the highest income and sales taxes in the nation, the state gas tax was raised 12 cents last year and the new federal tax law significantly reduces Californians' deductions. -----	35%	27%	23%	10%	5%	62%
[]b. (WASTE AND PENSIONS) If the AQMD has the authority to raise our local taxes, they will do what every government agency does—waste our money. In addition, instead of using these funds to reduce air pollution, most of it will end up going towards public employees' pension and retirement benefits. -----	25%	20%	27%	22%	5%	46%
[]c. (SOME WON'T PAY) Some cities within AQMD already are taxed at the maximum rate allowed by law and this measure will not increase their taxes. However, those cities will still get the benefit from taxes imposed on other cities. -----	17%	28%	27%	19%	9%	45%
(ASK SPLIT SAMPLE B ONLY)						
[]d. (UNFAIR) This measure is unfair to Southern California residents who are doing their part to reduce air pollution by carpooling, using public transportation, riding a bike or driving electric vehicles. Furthermore, higher sales taxes will hurt those who can least afford it, low-income families and seniors struggling with the high cost of living and rising housing prices. -----	31%	32%	22%	10%	5%	63%
[]e. (OUT OF STATE) Most of the manufacturing for zero emission and near zero emission technology occurs out of state. This tax measure will just divert funds out of the local economy, once again taking middle class jobs out of state. -----	20%	29%	30%	13%	8%	49%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(SPLIT SAMPLE B ONLY, CONT.)						
[]f. (CORPORATE WELFARE) The AQMD wants to raise taxes on Southern California residents and then give our money to trucking and cargo companies to pay for new equipment. This corporate welfare is how big business rigs the system at the expense of working families.-----	24%	29%	25%	16%	6%	53%
(ASK ITEM g ONLY TO VOTERS IN RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES)						
[]g. (FAIR SHARE) This measure raises taxes on all Southern California residents, but the vast majority of money is likely to be spent in L.A. County. The AQMD has produced no plan and has failed to provide specific information detailing how funds will be distributed fairly among the four counties.-----	0%	0%	0%	0%	0%	0%

(RESUME ASKING ALL RESPONDENTS)

14. Sometimes over the course of a survey like this one people change their minds and sometimes they do not. Let me ask you one more time about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure? **(IF YES/NO, ASK: "Is that definitely or just probably?")** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: "Do you lean toward voting yes or no?")**

TOTAL YES-----67%
 Definitely yes-----43%
 Probably yes-----21%
 Undecided, lean yes-----4%

TOTAL NO-----29%
 Undecided, lean no-----2%
 Probably no-----5%
 Definitely no-----22%

(DON'T READ) DK/NA-----4%

HERE ARE MY FINAL QUESTIONS. THEY ARE JUST FOR CLASSIFICATION PURPOSES.

15. Do you have children? **(IF YES, ASK: "Do you have any children under the age of 19 living at home?")**

Yes, children under 19 at home----- 19%
Yes, no children under 19 at home----- 23%
No, no children ----- 55%
(DON'T READ) DK/NA/REFUSED -----3%

16. With which racial or ethnic group do you identify yourself? **(READ RESPONSES)**

Hispanic/Latino ----- 34%
African-American or Black -----7%
Anglo/White ----- 45%
Asian/Pacific Islander-----7%
Something else -----3%
(DON'T READ) Refused/NA -----4%

17. What was the last level of school you completed?

Grades 1-8 -----5%
Grades 9-11 -----2%
High school graduate-----9%
Some college/business/vocational school ----- 22%
College graduate ----- 34%
Post-graduate work/professional school ----- 25%
(DON'T READ) Don't know -----3%

18. I don't need to know the exact amount, but I'm going to read you some categories for household income. Would you please stop me when I have read the category indicating the total combined income for all the people in your household before taxes in 2018?

\$25,000 and under----- 13%
\$25,001 - \$50,000 ----- 14%
\$50,001 - \$75,000 ----- 15%
\$75,001 - \$100,000 ----- 12%
\$100,001 - \$150,000 ----- 15%
More than \$150,000----- 16%
(DON'T READ) Refused/NA ----- 15%

THANK YOU FOR PARTICIPATING IN OUR SURVEY
--

Gender:

Male----- 48%
Female----- 52%
Other/Prefer not to say -----0%

Language of Interview

English----- 96%
Spanish -----4%

Party Registration: From file

Democrat----- 54%
 Republican----- 18%
 No Party Preference----- 24%
 Other party-----4%

STATEWIDE FLAGS

G08----- 57%
 P10----- 28%
 G10----- 53%
 P12----- 29%
 G12----- 64%
 P14----- 29%
 G14----- 48%
 P16----- 60%
 G16----- 85%
 P18----- 61%
 BLANK-----6%

PERMANENT ABSENTEE

Yes----- 59%
 No----- 41%

VOTE BY MAIL

1----- 18%
 2----- 9%
 3+----- 21%
 BLANK----- 52%

AGE

18-29----- 18%
 30-39----- 18%
 40-49----- 16%
 50-54----- 9%
 55-59----- 9%
 60-64----- 8%
 65-74----- 12%
 75+----- 10%
 BLANK-----0%

OWN/RENT

Own----- 50%
 Rent----- 50%

FOREIGN BORN

Yes----- 31%
 No----- 69%

HOUSEHOLD PARTY

1 DEM----- 33%
 2+ DEMS----- 13%
 1 REP-----9%
 2+ REPS-----5%
 1 INDEPENDENT----- 18%
 MIXED----- 21%

COUNTY

Los Angeles-----100%
 Orange-----0%
 San Bernardino-----0%
 Riverside-----0%

SUPERVISORIAL DISTRICT

1----- 17%
 2----- 18%
 3----- 22%
 4----- 21%
 5----- 22%

INTERVIEW MODE

Phone----- 52%
 Online----- 48%

A/B SPLIT

Split A----- 50%
 Split B----- 50%

January 5-14, 2019



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
BALLOT MEASURE FEASIBILITY SURVEY
220-5215-WT
N=279
ORANGE COUNTY
MARGIN OF SAMPLING ERROR $\pm 6.2\%$ (95% CONFIDENCE INTERVAL)**

Hello, I'm _____ from _____, a public opinion research company. **(IF VOTER WISHES TO COMPLETE THE INTERVIEW IN SPANISH, HAND OFF TO BILINGUAL INTERVIEWER.)** I am definitely NOT trying to sell you anything or ask for a donation. We are conducting an opinion survey about issues that interest people living in Southern California, and we would like to include your opinions. May I speak to _____? **(YOU MUST SPEAK TO THE VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED, OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely without endangering yourself or others? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely ----- 53%
Yes, cell but cannot talk safely ----- **TERMINATE**
No, not on cell, but own one ----- 44%
No, not on cell and do not own one ----- 3%
(DON'T READ) DK/NA/REFUSED ----- TERMINATE

1. Generally speaking, do you think things in _____ **(READ ITEMS BELOW)** are headed in the right direction, or do you feel that they are off on the wrong track? **(DO NOT ROTATE)**

	<u>RIGHT DIRECTION</u>	<u>WRONG TRACK</u>	<u>(DK/ NA)</u>
a. Southern California -----	43 %	45 %	12 %
b. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] -----	49 %	40 %	11 %

2. Now, I would like to ask your impressions of some people and organizations active in public life. As I read each name, please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Here's the first one... **(IF FAVORABLE/UNFAVORABLE, ASK: "Is that very (FAVORABLE/UNFAVORABLE) or just somewhat?") (RANDOMIZE)**

	<u>VERY FAV</u>	<u>SMWT FAV</u>	<u>SMWT UNFAV</u>	<u>VERY UNFAV</u>	<u>(CAN'T RATE</u>	<u>NEVER HEARD OF/DK</u>	<u>TOTAL FAV</u>	<u>TOTAL UNFAV</u>
(ASK SPLIT SAMPLE A ONLY)								
[]a. (T) South Coast Air Quality Management District -----	14 %	32 %	13 %	7 %	10 %	24 %	46 %	19 %
[]b. (T) The California Air Resources Board -----	3 %	31 %	14 %	12 %	9 %	31 %	34 %	26 %

	VERY FAV	SMWT FAV	SMWT UNFAV	VERY UNFAV	(CAN'T RATE	NEVER HEARD OF/DK	TOTAL FAV	TOTAL UNFAV
(ASK SPLIT SAMPLE B ONLY)								
[]c. (T) The AQMD -----	11 %	23 %	6 %	8 %	6 %	45 %	34 %	14 %
[]d. (T) Your County Board of Supervisors -----	6 %	35 %	18 %	8 %	15 %	18 %	41 %	26 %

(RESUME ASKING ALL RESPONDENTS)

3. Next, I am going read you the summary of a measure that may appear on the ballot in a future election. The measure may read as follows: **(READ SLOWLY AND CAREFULLY)**

SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE.
To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----54%

Definitely yes-----35%

Probably yes-----18%

Undecided, lean yes-----1%

TOTAL NO-----44%

Undecided, lean no-----1%

Probably no-----5%

Definitely no-----37%

(DON'T READ) DK/NA-----2%

(ASK Q4 ONLY IF CODED 2-7 Q3)

4. If instead of a one-half cent sales tax increase, the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE to reduce air pollution/emissions contributing to climate change and improve public health increased the sales tax by one-quarter cent, would you vote yes in favor of this measure, or no to oppose it? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q4</u>	<u>Q3/Q4</u>
TOTAL YES -----	28%	55%
Definitely yes -----	9%	38%
Probably yes -----	16%	15%
Undecided, lean yes -----	2%	2%
 TOTAL NO -----	 70%	 43%
Undecided, lean no -----	4%	1%
Probably no -----	9%	6%
Definitely no -----	57%	36%
 (DK/NA) -----	 3%	 1%

(ASK Q5 TO SPLIT SAMPLE A RESPONDENTS ONLY)

5. If this measure was written so the sales tax increase expired after 20 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY -----	10%
Much more likely -----	4%
Somewhat more likely -----	6%
 TOTAL LESS LIKELY -----	 10%
Somewhat less likely -----	7%
Much less likely -----	3%
 MAKES NO DIFF/DK/NA -----	 80%
Makes no difference -----	79%
(DON’T READ) DK/NA -----	1%

(ASK Q6 TO SPLIT SAMPLE B RESPONDENTS ONLY)

6. If this measure was written so the sales tax increase expired after 30 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 20%

Much more likely----- 11%

Somewhat more likely -----9%

TOTAL LESS LIKELY ----- 13%

Somewhat less likely -----3%

Much less likely----- 10%

MAKES NO DIFF/DK/NA ----- 67%

Makes no difference----- 64%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

7. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects that improved local light-rail transit and upgraded regional commuter rail systems in Southern California, would that make you more likely or less likely to vote Yes to approve the measure? **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 50%

Much more likely----- 30%

Somewhat more likely ----- 20%

TOTAL LESS LIKELY ----- 17%

Somewhat less likely -----3%

Much less likely----- 15%

MAKES NO DIFF/DK/NA ----- 33%

Makes no difference----- 30%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

8. Next, I am going to read some statements. For each one, please tell me if you agree or disagree with it. **(IF AGREE/DISAGREE, ASK: "Is that strongly (AGREE/DISAGREE) or just somewhat?") (RANDOMIZE)**

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
[]a. Cities and counties across Southern California may lose billions of dollars in federal highway funding, as well as suffer from other federal sanctions, if our region does not meet federal clean air standards -----	20%	26%	13%	15%	25%	46%	29%
[]b. The Federal Government is not doing its part to reduce air pollution, and Washington politicians are likely to cut funding for programs to improve air quality in Southern California -----	41%	20%	11%	18%	10%	60%	29%
(ASK SPLIT SAMPLE A ONLY)							
[]c. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will help to reduce asthma, cancer and other diseases, as well as premature death, caused by air pollution -----	43%	31%	5%	19%	2%	74%	24%
[]d. Providing financial incentives to local manufacturers to develop near-zero and zero emission technology will help the local economy and create new economic opportunities -----	39%	31%	10%	13%	7%	70%	23%
[]e. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County does not receive its fair share to fund programs that would reduce air pollution and improve local air quality -----	24%	11%	10%	11%	44%	35%	21%
[]f. Sacramento politicians should increase funding for programs to improve air quality in Southern California -----	44%	25%	9%	16%	6%	69%	25%

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will cut down on air pollution and greenhouse gases that cause climate change-----	43 %	30 %	10 %	13 %	4 %	74 %	23 %
[]h. Building new light-rail transit service in each Southern California county as well as expanding Metrolink, our regional commuter rail system, would help to improve air quality, reduce traffic congestion and create thousands of good local jobs -----	34 %	30 %	11 %	23 %	3 %	63 %	34 %
[]i. (PT) It is more expensive to deal with the health problems associated with air pollution than it is to fund programs that support the development and accelerated use of clean, zero and near-zero emission vehicles -----	26 %	29 %	13 %	18 %	15 %	55 %	30 %
[]j. State government is not doing its part to reduce air pollution -----	16 %	27 %	24 %	18 %	15 %	44 %	41 %
[]k. Air pollution is worse in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County than it is in the rest of Southern California -----	5 %	11 %	30 %	39 %	15 %	17 %	69 %
(ASK ONLY TO VOTERS IN SAN BERNARDINO & RIVERSIDE COUNTIES)							
[]l. The high number of trucks going to and from distribution centers across the Inland Empire have a significant negative impact on local air quality -----	0 %	0 %	0 %	0 %	0 %	0 %	0 %
(ASK ONLY TO VOTERS IN LOS ANGELES & ORANGE COUNTIES)							
[]m. Cargo ships, trains and trucks going in and out of the Ports of L.A. and Long Beach have a significant negative impact on local air quality -----	31 %	34 %	9 %	14 %	13 %	64 %	23 %

(RESUME ASKING ALL RESPONDENTS)

NOW I WOULD LIKE TO RETURN TO THE SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE THAT WE DISCUSSED EARLIER. AS YOU MAY RECALL, THIS MEASURE WOULD EXPAND FINANCIAL INCENTIVE PROGRAMS IMPLEMENTED BY AQMD TO REDUCE EMISSIONS FROM AIR POLLUTION SOURCES LIKE CARS, BUSES, TRUCKS, TRAINS AND CARGO FACILITIES THAT CAUSE AIR POLLUTION AND EMISSIONS THAT CONTRIBUTE TO CLIMATE CHANGE BY ACCELERATING THE DEVELOPMENT AND INCREASING THE USE OF NEAR-ZERO AND ZERO EMISSION VEHICLES AND EQUIPMENT IN LOS ANGELES, RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES, THROUGH A HALF CENT SALES TAX INCREASE.

9. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. After I read each one, please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. **(RANDOMIZE)**

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
[Ja. Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles-----	30%	24%	25%	18%	3%	54%
(ASK SPLIT SAMPLE A ONLY)						
[Jb. Converting Port of L.A. and Long Beach cargo equipment and vehicles to near-zero and zero emission technology -----	28%	22%	35%	14%	0%	50%
[Jc. Retrofitting ships with emission control systems to reduce air pollution in the Ports of L.A. and Long Beach -----	27%	24%	32%	15%	1%	51%
[Jd. Replacing medium-duty diesel delivery trucks with new, fully-electric battery-powered zero emission medium-duty vehicles-----	27%	21%	37%	13%	2%	48%
[Je. Providing financial incentives for car buyers to purchase zero-emission and advanced hybrid-electric cars -----	22%	27%	23%	26%	2%	49%
[Jf. Providing incentives for single truck owners to buy the cleanest truck equipment and vehicles available -----	22%	38%	17%	22%	0%	60%
[Jg. Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses-----	29%	33%	17%	18%	2%	63%
[Jh. Providing funding to help build dedicated lanes for 18-wheelers and other heavy-duty trucks on freeways and highways to relieve traffic congestion and reduce air pollution-----	24%	16%	24%	33%	3%	40%

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
(ASK SPLIT SAMPLE A ONLY CON'T)						
[]i. Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions -----	25 %	38 %	15 %	21 %	1 %	63 %
[]j. Providing financial incentives to speed up the transition of heavy-duty diesel trucks to near-zero emission natural gas, and/or zero emission electric or hydrogen fuel-cell trucks -----	24 %	29 %	26 %	20 %	1 %	54 %
[]k. Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy -----	27 %	26 %	33 %	12 %	2 %	53 %
(ASK SPLIT SAMPLE B ONLY)						
[]l. Replacing older trains with new cleaner models to reduce emissions -----	22 %	23 %	32 %	21 %	2 %	45 %
[]m. Providing incentives to ensure that the cleanest and lowest emitting ships that help reduce air pollution are directed to the Ports of L.A. and Long Beach-----	17 %	29 %	29 %	20 %	4 %	46 %
[]n. Funding incentives for the early changeover of heavy-duty diesel trucks to near-zero emission natural gas trucks and/or zero emission electric or hydrogen fuel-cell trucks -----	20 %	32 %	28 %	18 %	1 %	53 %
[]o. Upgrading infrastructure at the Ports of L.A. and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels -----	23 %	33 %	25 %	16 %	2 %	56 %
[]p. Replacing older diesel school buses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County school districts with zero emission electric or near-zero emission natural gas buses-----	25 %	34 %	28 %	13 %	0 %	59 %
[]q. Funding programs to help small businesses upgrade to cleaner equipment to help the economy and reduce air pollution at the same time -----	22 %	34 %	24 %	18 %	2 %	56 %
[]r. Electrifying and expanding local light-rail transit lines -----	24 %	24 %	27 %	23 %	1 %	48 %
[]s. Requiring the district to distribute funds generated by a sales tax increase in proportion to each County's population-----	18 %	25 %	23 %	25 %	8 %	43 %

	<u>EXT IMPT</u>	<u>VERY IMPT</u>	<u>SMWT IMPT</u>	<u>NOT TOO IMPT</u>	<u>(DK/ NA)</u>	<u>EXT/ VERY</u>
(ASK SPLIT SAMPLE B ONLY CON'T)						
[]t. Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy -----	31 %	25 %	25 %	18 %	0 %	57%
[]u. Providing funding for alternative fueling and electric vehicle charging stations and infrastructure-----	29 %	24 %	27 %	19 %	1 %	53%

(RESUME ASKING ALL RESPONDENTS)

10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]a. (HEALTH) The air in Southern California's 4-county South Coast region is among the nation's most polluted and exceeds federal health-based air quality standards about 40 percent of the year. Long-term exposure to polluted air can lead to heart and lung illnesses and diseases like asthma, emphysema, and cancer. Passing this measure will help to speed up the transition to near-zero and zero emission vehicles to reduce air pollution and emissions that pose serious health risks. -----	38 %	24 %	15 %	18 %	5 %	62%
[]b. (TRUCKS-INCENTIVES) Air pollution emissions from heavy-duty, diesel-powered trucks account for 52 percent of all on-road mobile emissions and 31 percent of overall mobile source emissions, which includes off-road sources like ships, trains, construction equipment, and planes in the South Coast region. This ballot measure will allow AQMD to expand incentive programs to truckers and their companies to accelerate their switch to natural gas, electric and other near-zero or zero emission vehicles critical to reducing air pollution and combating emissions that cause climate change. -----	34 %	35 %	12 %	14 %	5 %	69%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]c.	(ACCOUNTABILITY) To make sure funds are spent efficiently, effectively and as promised, the measure requires strict accountability requirements, including the preparation of a spending plan, to ensure transparency and public oversight. This includes annual financial and performance audits, prohibiting Sacramento from taking any of the funds, and local control over funds so every dollar raised is used to improve air quality in the AQMD four county region. -----	38%	25%	13%	18%	5%	64%
(ASK SPLIT SAMPLE A ONLY)							
[]d.	(FAIRNESS-\$50) This ballot measure to eliminate unhealthy air pollution in the South Coast region will spread the cost among many, including businesses and tourists, and the sales tax is not applied to essential necessities like housing, groceries and prescription medicine. This ballot measure would only cost the typical household about 50 dollars per year, or less than one dollar per week. -----	28%	34%	14%	22%	1%	62%
[]e.	(GHG) Gasoline powered cars, heavy-duty trucks, cargo ships and equipment at the Ports of L.A. and Long Beach, trains and other mobile sources are major sources of greenhouse gas emissions that cause climate change. Passing this measure will enable the AQMD to promote the use of clean technologies to make sure our region is a leader in fighting climate change and creating new economic opportunities for workers. -----	34%	36%	10%	15%	4%	70%
[]f.	(ECONOMY & JOBS) This measure requires the AQMD to give preference to companies that base their manufacturing and operations in southern California because our tax dollars should be used to support our local economy. This will encourage new private sector investments that will create good jobs and new opportunities for local workers and small businesses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County. -----	29%	36%	13%	19%	3%	65%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g.	(FAIRNESS-GOODS) About 60 percent of the items coming through the Ports of L.A. and Long Beach stay within the local region. All residents in the South Coast region are consumers of goods and products, which helps our local economy, but these goods, transported by trucks, ships, trains, and planes, cause air pollution throughout Southern California. It is fair and appropriate to ask residents to take responsibility for this pollution by contributing to programs that can help to create cleaner and healthier air for all of us. -----	21 %	29 %	29 %	17 %	3 %	50%
[]h.	(TRAFFIC CONGESTION) To help reduce traffic congestion throughout the region and at the local level, as well as cutdown on air pollution and create new jobs, this measure funds investments in new local light-rail transit service in each Southern California county and expands Metrolink, our regional commuter rail system, to help get more cars off local freeways and roads.-----	26 %	37 %	20 %	14 %	3 %	63%
[]i.	(EFFECTIVE) AQMD's grant and incentive programs to reduce air pollution and emissions have improved air quality in the Southland. Summertime smog has been cut to less than one-quarter of what it was in the 1950s, even though the population has tripled and the number of vehicles has increased four-fold since then. This measure will expand these successful programs to replace older, dirtier diesel buses and trucks with 21 st Century zero emission and near-zero emission vehicles. -----	36 %	33 %	14 %	11 %	5 %	69%
(ASK ONLY TO LOS ANGELES COUNTY VOTERS)							
[]j.	(LA LIVES) Implementing grant and incentive programs to reduce air pollution would prevent over one thousand premature deaths annually of L.A. County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0 %	0 %	0 %	0 %	0 %	0%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
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(LOS ANGELES COUNTY VOTERS, CONT.)

[]k. (LA SAVINGS) Air pollution costs L.A. County residents and workers up to ten billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated 22 million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% ----- 0%-----0% -----0%	0%
---	----

(ASK ONLY TO ORANGE COUNTY VOTERS)

[]l. (ORANGE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent two hundred premature deaths annually of Orange County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----27%----- 30% ---- 21% -----16% -----5%	57%
---	-----

[]m. (ORANGE SAVINGS) Air pollution costs Orange County residents and workers more than one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----32%----- 25% ---- 19% -----20% -----4%	57%
--	-----

(ASK ONLY TO RIVERSIDE COUNTY VOTERS)

[]n. (RIVERSIDE LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of Riverside County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% ----- 0%-----0% -----0%	0%
---	----

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(RIVERSIDE COUNTY VOTERS CONT.)						
[]o. (RIVERSIDE SAVINGS) Air pollution costs Riverside County residents and workers more than two billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated six million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% -----0%-----0% -----0%						0%
(ASK ONLY TO SAN BERNARDINO COUNTY VOTERS)						
[]p. (SAN BERNARDINO LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of San Bernardino County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% -----0%-----0% -----0%						0%
[]q. (SAN BERNARDINO SAVINGS) Air pollution costs San Bernardino County residents and workers one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% -----0%-----0% -----0%						0%

(RESUME ASKING ALL RESPONDENTS)

11. Having heard this, let me ask you again about the about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----57%
Definitely yes-----40%
Probably yes-----11%
Undecided, lean yes-----6%

TOTAL NO-----41%
Undecided, lean no-----1%
Probably no-----7%
Definitely no-----33%

(DON'T READ) DK/NA-----2%

(ASK Q12 ONLY TO RESPONDENTS CODED 2-7 IN Q11)

12. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects by improving local light-rail transit and upgrading regional commuter rail systems in Southern California, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q12</u>	<u>Q11/Q12</u>
TOTAL YES-----	31%	53%
Definitely yes-----	5%	39%
Probably yes-----	19%	10%
Undecided, lean yes-----	7%	4%
TOTAL NO-----	63%	41%
Undecided, lean no-----	1%	1%
Probably no-----	12%	7%
Definitely no-----	50%	32%
(DK/NA)-----	6%	6%

(RESUME ASKING ALL RESPONDENTS)

13. Here are some statements from people who oppose this ballot measure. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not convincing as a reason to vote no. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE A ONLY)						
[]a. (MORE TAXES) Californians already pay some of the highest income and sales taxes in the nation, the state gas tax was raised 12 cents last year and the new federal tax law significantly reduces Californians' deductions. -----	43%	23%	20%	12%	3%	65%
[]b. (WASTE AND PENSIONS) If the AQMD has the authority to raise our local taxes, they will do what every government agency does—waste our money. In addition, instead of using these funds to reduce air pollution, most of it will end up going towards public employees' pension and retirement benefits. -----	34%	23%	25%	15%	3%	56%
[]c. (SOME WON'T PAY) Some cities within AQMD already are taxed at the maximum rate allowed by law and this measure will not increase their taxes. However, those cities will still get the benefit from taxes imposed on other cities. -----	21%	32%	28%	12%	7%	53%
(ASK SPLIT SAMPLE B ONLY)						
[]d. (UNFAIR) This measure is unfair to Southern California residents who are doing their part to reduce air pollution by carpooling, using public transportation, riding a bike or driving electric vehicles. Furthermore, higher sales taxes will hurt those who can least afford it, low-income families and seniors struggling with the high cost of living and rising housing prices. -----	39%	26%	21%	11%	2%	65%
[]e. (OUT OF STATE) Most of the manufacturing for zero emission and near zero emission technology occurs out of state. This tax measure will just divert funds out of the local economy, once again taking middle class jobs out of state. -----	27%	29%	21%	15%	7%	57%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(SPLIT SAMPLE B ONLY, CONT.)						
[]f. (CORPORATE WELFARE) The AQMD wants to raise taxes on Southern California residents and then give our money to trucking and cargo companies to pay for new equipment. This corporate welfare is how big business rigs the system at the expense of working families.-----	29%	27%	22%	17%	5%	56%
(ASK ITEM g ONLY TO VOTERS IN RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES)						
[]g. (FAIR SHARE) This measure raises taxes on all Southern California residents, but the vast majority of money is likely to be spent in L.A. County. The AQMD has produced no plan and has failed to provide specific information detailing how funds will be distributed fairly among the four counties.-----	30%	42%	18%	6%	5%	71%

(RESUME ASKING ALL RESPONDENTS)

14. Sometimes over the course of a survey like this one people change their minds and sometimes they do not. Let me ask you one more time about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----53%
 Definitely yes-----34%
 Probably yes-----18%
 Undecided, lean yes-----1%

TOTAL NO-----44%
 Undecided, lean no-----3%
 Probably no-----9%
 Definitely no-----32%

(DON'T READ) DK/NA-----3%

HERE ARE MY FINAL QUESTIONS. THEY ARE JUST FOR CLASSIFICATION PURPOSES.

15. Do you have children? (IF YES, ASK: "Do you have any children under the age of 19 living at home?")

Yes, children under 19 at home----- 27%
Yes, no children under 19 at home----- 27%
No, no children ----- 45%
(DON'T READ) DK/NA/REFUSED -----2%

16. With which racial or ethnic group do you identify yourself? (READ RESPONSES)

Hispanic/Latino ----- 19%
African-American or Black -----1%
Anglo/White ----- 61%
Asian/Pacific Islander----- 11%
Something else -----4%
(DON'T READ) Refused/NA -----4%

17. What was the last level of school you completed?

Grades 1-8 -----4%
Grades 9-11 -----2%
High school graduate-----6%
Some college/business/vocational school ----- 23%
College graduate ----- 33%
Post-graduate work/professional school ----- 30%
(DON'T READ) Don't know -----2%

18. I don't need to know the exact amount, but I'm going to read you some categories for household income. Would you please stop me when I have read the category indicating the total combined income for all the people in your household before taxes in 2018?

\$25,000 and under-----8%
\$25,001 - \$50,000 ----- 10%
\$50,001 - \$75,000 ----- 11%
\$75,001 - \$100,000 ----- 12%
\$100,001 - \$150,000 ----- 19%
More than \$150,000----- 28%
(DON'T READ) Refused/NA ----- 13%

THANK YOU FOR PARTICIPATING IN OUR SURVEY
--

Gender:

Male----- 50%
Female----- 50%

Language of Interview

English----- 97%
Spanish -----3%

Party Registration: From file

Democrat----- 34%
 Republican----- 38%
 No Party Preference----- 19%
 Other party-----9%

STATEWIDE FLAGS

G08----- 62%
 P10----- 36%
 G10----- 51%
 P12----- 36%
 G12----- 66%
 P14----- 33%
 G14----- 52%
 P16----- 50%
 G16----- 88%
 P18----- 63%
 BLANK-----5%

PERMANENT ABSENTEE

Yes----- 63%
 No----- 37%

VOTE BY MAIL

1----- 14%
 2----- 11%
 3+----- 29%
 BLANK----- 46%

AGE

18-29----- 16%
 30-39----- 15%
 40-49----- 16%
 50-54----- 12%
 55-59----- 9%
 60-64----- 8%
 65-74----- 13%
 75+----- 12%
 BLANK----- 1%

OWN/RENT

Own----- 58%
 Rent----- 42%

FOREIGN BORN

Yes----- 19%
 No----- 81%

HOUSEHOLD PARTY

1 DEM----- 16%
 2+ DEMS-----9%
 1 REP----- 12%
 2+ REPS----- 19%
 1 INDEPENDENT----- 12%
 MIXED----- 32%

COUNTY

Los Angeles-----0%
 Orange-----100%
 San Bernardino-----0%
 Riverside-----0%

SUPERVISORIAL DISTRICT

1----- 14%
 2----- 23%
 3----- 22%
 4----- 17%
 5----- 24%

INTERVIEW MODE

Phone----- 47%
 Online----- 53%

A/B SPLIT

Split A----- 50%
 Split B----- 50%

January 5-14, 2019



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
BALLOT MEASURE FEASIBILITY SURVEY
220-5215-WT
N=347
RIVERSIDE COUNTY
MARGIN OF SAMPLING ERROR $\pm 6.2\%$ (95% CONFIDENCE INTERVAL)**

Hello, I'm _____ from _____, a public opinion research company. **(IF VOTER WISHES TO COMPLETE THE INTERVIEW IN SPANISH, HAND OFF TO BILINGUAL INTERVIEWER.)** I am definitely NOT trying to sell you anything or ask for a donation. We are conducting an opinion survey about issues that interest people living in Southern California, and we would like to include your opinions. May I speak to _____? **(YOU MUST SPEAK TO THE VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED, OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely without endangering yourself or others? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely ----- 74%
Yes, cell but cannot talk safely ----- **TERMINATE**
No, not on cell, but own one ----- 21%
No, not on cell and do not own one ----- 5%
(DON'T READ) DK/NA/REFUSED ----- TERMINATE

1. Generally speaking, do you think things in _____ **(READ ITEMS BELOW)** are headed in the right direction, or do you feel that they are off on the wrong track? **(DO NOT ROTATE)**

	<u>RIGHT DIRECTION</u>	<u>WRONG TRACK</u>	<u>(DK/ NA)</u>
a. Southern California -----	38 %	46 %	16 %
b. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] -----	40 %	39 %	21 %

2. Now, I would like to ask your impressions of some people and organizations active in public life. As I read each name, please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Here's the first one... **(IF FAVORABLE/UNFAVORABLE, ASK: "Is that very (FAVORABLE/UNFAVORABLE) or just somewhat?") (RANDOMIZE)**

	<u>VERY FAV</u>	<u>SMWT FAV</u>	<u>SMWT UNFAV</u>	<u>VERY UNFAV</u>	<u>(CAN'T RATE</u>	<u>NEVER HEARD OF/DK</u>	<u>TOTAL FAV</u>	<u>TOTAL UNFAV</u>
(ASK SPLIT SAMPLE A ONLY)								
[]a. (T) South Coast Air Quality Management District -----	17 %	23 %	9 %	13 %	8 %	29 %	41 %	22 %
[]b. (T) The California Air Resources Board-----	12 %	17 %	13 %	12 %	10 %	36 %	29 %	25 %

	VERY FAV	SMWT FAV	SMWT UNFAV	VERY UNFAV	(CAN'T RATE	NEVER HEARD OF/DK	TOTAL FAV	TOTAL UNFAV
(ASK SPLIT SAMPLE B ONLY)								
[]c. (T) The AQMD -----	7%	18%	6%	15%	15%	40%	25%	20%
[]d. (T) Your County Board of Supervisors -----	4%	32%	18%	14%	16%	16%	36%	32%

(RESUME ASKING ALL RESPONDENTS)

3. Next, I am going read you the summary of a measure that may appear on the ballot in a future election. The measure may read as follows: **(READ SLOWLY AND CAREFULLY)**

SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE.
To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----47%
Definitely yes-----32%
Probably yes-----12%
Undecided, lean yes-----3%

TOTAL NO-----49%
Undecided, lean no-----2%
Probably no-----7%
Definitely no-----40%

(DON'T READ) DK/NA -----4%

(ASK Q4 ONLY IF CODED 2-7 Q3)

4. If instead of a one-half cent sales tax increase, the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE to reduce air pollution/emissions contributing to climate change and improve public health increased the sales tax by one-quarter cent, would you vote yes in favor of this measure, or no to oppose it? **(IF YES/NO, ASK: "Is that definitely or just probably?")** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: "Do you lean toward voting yes or no?")**

	<u>Q4</u>	<u>Q3/Q4</u>
TOTAL YES -----	27%	49%
Definitely yes -----	10%	39%
Probably yes -----	15%	8%
Undecided, lean yes -----	2%	2%
 TOTAL NO -----	 70%	 48%
Undecided, lean no -----	1%	1%
Probably no -----	8%	3%
Definitely no -----	61%	45%
 (DK/NA) -----	 3%	 3%

(ASK Q5 TO SPLIT SAMPLE A RESPONDENTS ONLY)

5. If this measure was written so the sales tax increase expired after 20 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: "Is that much (MORE/LESS) likely to vote yes or just somewhat?")**

TOTAL MORE LIKELY -----	16%
Much more likely -----	7%
Somewhat more likely -----	9%
 TOTAL LESS LIKELY -----	 8%
Somewhat less likely -----	2%
Much less likely -----	6%
 MAKES NO DIFF/DK/NA -----	 76%
Makes no difference -----	72%
(DON'T READ) DK/NA -----	4%

(ASK Q6 TO SPLIT SAMPLE B RESPONDENTS ONLY)

6. If this measure was written so the sales tax increase expired after 30 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 18%

Much more likely-----8%

Somewhat more likely ----- 11%

TOTAL LESS LIKELY ----- 20%

Somewhat less likely -----7%

Much less likely----- 13%

MAKES NO DIFF/DK/NA ----- 62%

Makes no difference----- 59%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

7. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects that improved local light-rail transit and upgraded regional commuter rail systems in Southern California, would that make you more likely or less likely to vote Yes to approve the measure? **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 50%

Much more likely----- 29%

Somewhat more likely ----- 21%

TOTAL LESS LIKELY ----- 18%

Somewhat less likely -----4%

Much less likely----- 14%

MAKES NO DIFF/DK/NA ----- 33%

Makes no difference----- 31%

(DON'T READ) DK/NA -----2%

(RESUME ASKING ALL RESPONDENTS)

8. Next, I am going to read some statements. For each one, please tell me if you agree or disagree with it. **(IF AGREE/DISAGREE, ASK: "Is that strongly (AGREE/DISAGREE) or just somewhat?") (RANDOMIZE)**

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
[]a. Cities and counties across Southern California may lose billions of dollars in federal highway funding, as well as suffer from other federal sanctions, if our region does not meet federal clean air standards -----	18%	22%	16%	22%	22%	40%	38%
[]b. The Federal Government is not doing its part to reduce air pollution, and Washington politicians are likely to cut funding for programs to improve air quality in Southern California -----	40%	15%	12%	23%	10%	55%	35%
(ASK SPLIT SAMPLE A ONLY)							
[]c. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will help to reduce asthma, cancer and other diseases, as well as premature death, caused by air pollution -----	51%	19%	7%	17%	6%	70%	24%
[]d. Providing financial incentives to local manufacturers to develop near-zero and zero emission technology will help the local economy and create new economic opportunities -----	42%	22%	9%	19%	8%	64%	28%
[]e. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County does not receive its fair share to fund programs that would reduce air pollution and improve local air quality -----	18%	17%	8%	10%	47%	35%	18%
[]f. Sacramento politicians should increase funding for programs to improve air quality in Southern California -----	42%	20%	9%	23%	6%	62%	32%

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will cut down on air pollution and greenhouse gases that cause climate change-----	43 %	20 %	17 %	14 %	6 %	63 %	31 %
[]h. Building new light-rail transit service in each Southern California county as well as expanding Metrolink, our regional commuter rail system, would help to improve air quality, reduce traffic congestion and create thousands of good local jobs -----	45 %	22 %	13 %	16 %	3 %	67 %	30 %
[]i. (PT) It is more expensive to deal with the health problems associated with air pollution than it is to fund programs that support the development and accelerated use of clean, zero and near-zero emission vehicles -----	31 %	24 %	12 %	20 %	12 %	55 %	32 %
[]j. State government is not doing its part to reduce air pollution -----	27 %	28 %	23 %	14 %	7 %	55 %	38 %
[]k. Air pollution is worse in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County than it is in the rest of Southern California -----	21 %	14 %	32 %	20 %	13 %	35 %	52 %
(ASK ONLY TO VOTERS IN SAN BERNARDINO & RIVERSIDE COUNTIES)							
[]l. The high number of trucks going to and from distribution centers across the Inland Empire have a significant negative impact on local air quality -----	41 %	24 %	14 %	15 %	6 %	65 %	29 %
(ASK ONLY TO VOTERS IN LOS ANGELES & ORANGE COUNTIES)							
[]m. Cargo ships, trains and trucks going in and out of the Ports of L.A. and Long Beach have a significant negative impact on local air quality -----	0 %	0 %	0 %	0 %	0 %	0 %	0 %

(RESUME ASKING ALL RESPONDENTS)

NOW I WOULD LIKE TO RETURN TO THE SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE THAT WE DISCUSSED EARLIER. AS YOU MAY RECALL, THIS MEASURE WOULD EXPAND FINANCIAL INCENTIVE PROGRAMS IMPLEMENTED BY AQMD TO REDUCE EMISSIONS FROM AIR POLLUTION SOURCES LIKE CARS, BUSES, TRUCKS, TRAINS AND CARGO FACILITIES THAT CAUSE AIR POLLUTION AND EMISSIONS THAT CONTRIBUTE TO CLIMATE CHANGE BY ACCELERATING THE DEVELOPMENT AND INCREASING THE USE OF NEAR-ZERO AND ZERO EMISSION VEHICLES AND EQUIPMENT IN LOS ANGELES, RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES, THROUGH A HALF CENT SALES TAX INCREASE.

9. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. After I read each one, please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. **(RANDOMIZE)**

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
[Ja. Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles-----	27%	22%	23%	22%	5%	50%
(ASK SPLIT SAMPLE A ONLY)						
[Jb. Converting Port of L.A. and Long Beach cargo equipment and vehicles to near-zero and zero emission technology -----	24%	24%	22%	27%	3%	48%
[Jc. Retrofitting ships with emission control systems to reduce air pollution in the Ports of L.A. and Long Beach -----	27%	16%	21%	30%	6%	43%
[Jd. Replacing medium-duty diesel delivery trucks with new, fully-electric battery-powered zero emission medium-duty vehicles-----	26%	23%	22%	25%	4%	49%
[Je. Providing financial incentives for car buyers to purchase zero-emission and advanced hybrid-electric cars -----	25%	21%	20%	32%	2%	47%
[Jf. Providing incentives for single truck owners to buy the cleanest truck equipment and vehicles available -----	21%	26%	24%	27%	2%	47%
[Jg. Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses-----	30%	23%	24%	20%	3%	53%
[Jh. Providing funding to help build dedicated lanes for 18-wheelers and other heavy-duty trucks on freeways and highways to relieve traffic congestion and reduce air pollution-----	25%	21%	26%	25%	2%	47%

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
(ASK SPLIT SAMPLE A ONLY CON'T)						
[]i. Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions -----	27%	21%	20%	27%	4%	48%
[]j. Providing financial incentives to speed up the transition of heavy-duty diesel trucks to near-zero emission natural gas, and/or zero emission electric or hydrogen fuel-cell trucks -----	26%	18%	22%	31%	2%	45%
[]k. Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy -----	29%	21%	26%	21%	4%	49%
(ASK SPLIT SAMPLE B ONLY)						
[]l. Replacing older trains with new cleaner models to reduce emissions -----	22%	31%	26%	14%	7%	53%
[]m. Providing incentives to ensure that the cleanest and lowest emitting ships that help reduce air pollution are directed to the Ports of L.A. and Long Beach-----	24%	21%	27%	21%	7%	45%
[]n. Funding incentives for the early changeover of heavy-duty diesel trucks to near-zero emission natural gas trucks and/or zero emission electric or hydrogen fuel-cell trucks -----	20%	23%	28%	24%	5%	43%
[]o. Upgrading infrastructure at the Ports of L.A. and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels -----	27%	24%	25%	17%	7%	51%
[]p. Replacing older diesel school buses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County school districts with zero emission electric or near-zero emission natural gas buses-----	26%	29%	24%	15%	5%	55%
[]q. Funding programs to help small businesses upgrade to cleaner equipment to help the economy and reduce air pollution at the same time -----	21%	24%	28%	21%	7%	45%
[]r. Electrifying and expanding local light-rail transit lines -----	26%	23%	19%	27%	5%	49%
[]s. Requiring the district to distribute funds generated by a sales tax increase in proportion to each County's population-----	11%	30%	23%	26%	10%	41%

	<u>EXT IMPT</u>	<u>VERY IMPT</u>	<u>SMWT IMPT</u>	<u>NOT TOO IMPT</u>	<u>(DK/ NA)</u>	<u>EXT/ VERY</u>
(ASK SPLIT SAMPLE B ONLY CON'T)						
[]t. Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy -----	28%	24%	22%	20%	6%	52%
[]u. Providing funding for alternative fueling and electric vehicle charging stations and infrastructure-----	19%	24%	25%	28%	4%	43%

(RESUME ASKING ALL RESPONDENTS)

10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]a. (HEALTH) The air in Southern California's 4-county South Coast region is among the nation's most polluted and exceeds federal health-based air quality standards about 40 percent of the year. Long-term exposure to polluted air can lead to heart and lung illnesses and diseases like asthma, emphysema, and cancer. Passing this measure will help to speed up the transition to near-zero and zero emission vehicles to reduce air pollution and emissions that pose serious health risks. -----	31%	30%	15%	19%	4%	61%
[]b. (TRUCKS-INCENTIVES) Air pollution emissions from heavy-duty, diesel-powered trucks account for 52 percent of all on-road mobile emissions and 31 percent of overall mobile source emissions, which includes off-road sources like ships, trains, construction equipment, and planes in the South Coast region. This ballot measure will allow AQMD to expand incentive programs to truckers and their companies to accelerate their switch to natural gas, electric and other near-zero or zero emission vehicles critical to reducing air pollution and combating emissions that cause climate change. -----	30%	31%	16%	21%	3%	61%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]c. (ACCOUNTABILITY) To make sure funds are spent efficiently, effectively and as promised, the measure requires strict accountability requirements, including the preparation of a spending plan, to ensure transparency and public oversight. This includes annual financial and performance audits, prohibiting Sacramento from taking any of the funds, and local control over funds so every dollar raised is used to improve air quality in the AQMD four county region. -----	33%	28%	14%	21%	3%	62%
(ASK SPLIT SAMPLE A ONLY)						
[]d. (FAIRNESS-\$50) This ballot measure to eliminate unhealthy air pollution in the South Coast region will spread the cost among many, including businesses and tourists, and the sales tax is not applied to essential necessities like housing, groceries and prescription medicine. This ballot measure would only cost the typical household about 50 dollars per year, or less than one dollar per week. -----	31%	22%	16%	27%	4%	53%
[]e. (GHG) Gasoline powered cars, heavy-duty trucks, cargo ships and equipment at the Ports of L.A. and Long Beach, trains and other mobile sources are major sources of greenhouse gas emissions that cause climate change. Passing this measure will enable the AQMD to promote the use of clean technologies to make sure our region is a leader in fighting climate change and creating new economic opportunities for workers. -----	29%	25%	19%	24%	3%	54%
[]f. (ECONOMY & JOBS) This measure requires the AQMD to give preference to companies that base their manufacturing and operations in southern California because our tax dollars should be used to support our local economy. This will encourage new private sector investments that will create good jobs and new opportunities for local workers and small businesses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County. -----	30%	27%	16%	22%	4%	57%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g.	(FAIRNESS-GOODS) About 60 percent of the items coming through the Ports of L.A. and Long Beach stay within the local region. All residents in the South Coast region are consumers of goods and products, which helps our local economy, but these goods, transported by trucks, ships, trains, and planes, cause air pollution throughout Southern California. It is fair and appropriate to ask residents to take responsibility for this pollution by contributing to programs that can help to create cleaner and healthier air for all of us. -----	18%	27%	35%	18%	3%	45%
[]h.	(TRAFFIC CONGESTION) To help reduce traffic congestion throughout the region and at the local level, as well as cutdown on air pollution and create new jobs, this measure funds investments in new local light-rail transit service in each Southern California county and expands Metrolink, our regional commuter rail system, to help get more cars off local freeways and roads.-----	31%	34%	17%	16%	2%	65%
[]i.	(EFFECTIVE) AQMD's grant and incentive programs to reduce air pollution and emissions have improved air quality in the Southland. Summertime smog has been cut to less than one-quarter of what it was in the 1950s, even though the population has tripled and the number of vehicles has increased four-fold since then. This measure will expand these successful programs to replace older, dirtier diesel buses and trucks with 21 st Century zero emission and near-zero emission vehicles. -----	28%	35%	14%	19%	4%	63%
(ASK ONLY TO LOS ANGELES COUNTY VOTERS)							
[]j.	(LA LIVES) Implementing grant and incentive programs to reduce air pollution would prevent over one thousand premature deaths annually of L.A. County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0%	0%	0%	0%	0%	0%

VERY CONV	SMWT CONV	NOT CONV	DON'T BEL	(DK/ NA)	VERY/ SMWT
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(LOS ANGELES COUNTY VOTERS, CONT.)

[]k. **(LA SAVINGS)** Air pollution costs L.A. County residents and workers up to ten billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated 22 million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% ----- 0%-----0% -----0% 0%

(ASK ONLY TO ORANGE COUNTY VOTERS)

[]l. **(ORANGE LIVES)** Implementing grant and incentive programs to reduce air pollution would prevent two hundred premature deaths annually of Orange County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% ----- 0%-----0% -----0% 0%

[]m. **(ORANGE SAVINGS)** Air pollution costs Orange County residents and workers more than one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% ----- 0%-----0% -----0% 0%

(ASK ONLY TO RIVERSIDE COUNTY VOTERS)

[]n. **(RIVERSIDE LIVES)** Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of Riverside County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----24%----- 26% ---- 21% -----23% -----6% 50%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(RIVERSIDE COUNTY VOTERS CONT.)						
[]o. (RIVERSIDE SAVINGS) Air pollution costs Riverside County residents and workers more than two billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated six million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	27%	30%	17%	22%	4%	57%
(ASK ONLY TO SAN BERNARDINO COUNTY VOTERS)						
[]p. (SAN BERNARDINO LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of San Bernardino County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0%	0%	0%	0%	0%	0%
[]q. (SAN BERNARDINO SAVINGS) Air pollution costs San Bernardino County residents and workers one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----	0%	0%	0%	0%	0%	0%

(RESUME ASKING ALL RESPONDENTS)

11. Having heard this, let me ask you again about the about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----51%
 Definitely yes-----34%
 Probably yes-----14%
 Undecided, lean yes-----3%

TOTAL NO-----44%
 Undecided, lean no-----1%
 Probably no-----4%
 Definitely no-----39%

(DON'T READ) DK/NA-----5%

(ASK Q12 ONLY TO RESPONDENTS CODED 2-7 IN Q11)

12. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects by improving local light-rail transit and upgrading regional commuter rail systems in Southern California, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q12</u>	<u>Q11/Q12</u>
TOTAL YES-----	31%	51%
Definitely yes-----	7%	40%
Probably yes-----	22%	10%
Undecided, lean yes-----	2%	1%
TOTAL NO-----	63%	45%
Undecided, lean no-----	2%	2%
Probably no-----	7%	2%
Definitely no-----	54%	41%
(DK/NA)-----	5%	4%

(RESUME ASKING ALL RESPONDENTS)

13. Here are some statements from people who oppose this ballot measure. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not convincing as a reason to vote no. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE A ONLY)						
[]a. (MORE TAXES) Californians already pay some of the highest income and sales taxes in the nation, the state gas tax was raised 12 cents last year and the new federal tax law significantly reduces Californians' deductions. -----	49%	21%	16%	10%	4%	70%
[]b. (WASTE AND PENSIONS) If the AQMD has the authority to raise our local taxes, they will do what every government agency does—waste our money. In addition, instead of using these funds to reduce air pollution, most of it will end up going towards public employees' pension and retirement benefits. -----	40%	21%	19%	14%	5%	62%
[]c. (SOME WON'T PAY) Some cities within AQMD already are taxed at the maximum rate allowed by law and this measure will not increase their taxes. However, those cities will still get the benefit from taxes imposed on other cities. -----	30%	20%	29%	11%	9%	51%
(ASK SPLIT SAMPLE B ONLY)						
[]d. (UNFAIR) This measure is unfair to Southern California residents who are doing their part to reduce air pollution by carpooling, using public transportation, riding a bike or driving electric vehicles. Furthermore, higher sales taxes will hurt those who can least afford it, low-income families and seniors struggling with the high cost of living and rising housing prices. -----	45%	22%	22%	5%	6%	67%
[]e. (OUT OF STATE) Most of the manufacturing for zero emission and near zero emission technology occurs out of state. This tax measure will just divert funds out of the local economy, once again taking middle class jobs out of state. -----	24%	26%	27%	14%	10%	49%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(SPLIT SAMPLE B ONLY, CONT.)						
[]f. (CORPORATE WELFARE) The AQMD wants to raise taxes on Southern California residents and then give our money to trucking and cargo companies to pay for new equipment. This corporate welfare is how big business rigs the system at the expense of working families.-----	29%	27%	26%	12%	7%	55%
(ASK ITEM g ONLY TO VOTERS IN RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES)						
[]g. (FAIR SHARE) This measure raises taxes on all Southern California residents, but the vast majority of money is likely to be spent in L.A. County. The AQMD has produced no plan and has failed to provide specific information detailing how funds will be distributed fairly among the four counties.-----	42%	24%	20%	8%	7%	65%

(RESUME ASKING ALL RESPONDENTS)

14. Sometimes over the course of a survey like this one people change their minds and sometimes they do not. Let me ask you one more time about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----45%
 Definitely yes-----32%
 Probably yes-----10%
 Undecided, lean yes-----2%

TOTAL NO-----50%
 Undecided, lean no-----1%
 Probably no-----8%
 Definitely no-----40%

(DON'T READ) DK/NA-----5%

HERE ARE MY FINAL QUESTIONS. THEY ARE JUST FOR CLASSIFICATION PURPOSES.

15. Do you have children? (IF YES, ASK: "Do you have any children under the age of 19 living at home?")

Yes, children under 19 at home----- 28%
Yes, no children under 19 at home----- 32%
No, no children ----- 37%
(DON'T READ) DK/NA/REFUSED -----3%

16. With which racial or ethnic group do you identify yourself? (READ RESPONSES)

Hispanic/Latino ----- 33%
African-American or Black -----3%
Anglo/White ----- 52%
Asian/Pacific Islander-----2%
Something else -----3%
(DON'T READ) Refused/NA -----7%

17. What was the last level of school you completed?

Grades 1-8 -----6%
Grades 9-11 -----3%
High school graduate-----6%
Some college/business/vocational school ----- 35%
College graduate ----- 26%
Post-graduate work/professional school ----- 21%
(DON'T READ) Don't know -----3%

18. I don't need to know the exact amount, but I'm going to read you some categories for household income. Would you please stop me when I have read the category indicating the total combined income for all the people in your household before taxes in 2018?

\$25,000 and under----- 16%
\$25,001 - \$50,000 ----- 13%
\$50,001 - \$75,000 ----- 15%
\$75,001 - \$100,000 ----- 13%
\$100,001 - \$150,000 ----- 19%
More than \$150,000----- 12%
(DON'T READ) Refused/NA ----- 12%

THANK YOU FOR PARTICIPATING IN OUR SURVEY
--

Gender:

Male----- 49%
Female----- 51%
Other/Prefer not to say -----0%

Language of Interview

English----- 94%
Spanish -----6%

Party Registration: From file

Democrat----- 39%
 Republican----- 35%
 No Party Preference----- 20%
 Other party----- 6%

STATEWIDE FLAGS

G08----- 50%
 P10----- 29%
 G10----- 48%
 P12----- 31%
 G12----- 59%
 P14----- 30%
 G14----- 47%
 P16----- 56%
 G16----- 89%
 P18----- 63%
 BLANK----- 4%

PERMANENT ABSENTEE

Yes----- 79%
 No----- 21%

VOTE BY MAIL

1----- 18%
 2----- 17%
 3+----- 36%
 BLANK----- 30%

AGE

18-29----- 18%
 30-39----- 15%
 40-49----- 15%
 50-54----- 3%
 55-59----- 10%
 60-64----- 14%
 65-74----- 16%
 75+----- 8%

OWN/RENT

Own----- 61%
 Rent----- 39%

FOREIGN BORN

Yes----- 16%
 No----- 84%

HOUSEHOLD PARTY

1 DEM----- 21%
 2+ DEMS----- 10%
 1 REP----- 14%
 2+ REPS----- 14%
 1 INDEPENDENT----- 13%
 MIXED----- 28%

COUNTY

Los Angeles----- 0%
 Orange----- 0%
 San Bernardino----- 0%
 Riverside----- 100%

SUPERVISORIAL DISTRICT

1----- 20%
 2----- 19%
 3----- 22%
 4----- 19%
 5----- 20%

INTERVIEW MODE

Phone----- 40%
 Online----- 60%

A/B SPLIT

Split A----- 50%
 Split B----- 50%

January 5-14, 2019



<p align="center"> SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT BALLOT MEASURE FEASIBILITY SURVEY 220-5215-WT N=259 SAN BERNARDINO COUNTY MARGIN OF SAMPLING ERROR ±6.2% (95% CONFIDENCE INTERVAL) </p>

Hello, I'm _____ from _____, a public opinion research company. **(IF VOTER WISHES TO COMPLETE THE INTERVIEW IN SPANISH, HAND OFF TO BILINGUAL INTERVIEWER.)** I am definitely NOT trying to sell you anything or ask for a donation. We are conducting an opinion survey about issues that interest people living in Southern California, and we would like to include your opinions. May I speak to _____? **(YOU MUST SPEAK TO THE VOTER LISTED. VERIFY THAT THE VOTER LIVES AT THE ADDRESS LISTED, OTHERWISE TERMINATE.)**

- A. Before we begin, I need to know if I have reached you on a cell phone, and if so, are you in a place where you can talk safely without endangering yourself or others? **(IF NOT ON A CELL PHONE, ASK: "Do you own a cell phone?")**

Yes, cell and can talk safely ----- 60%
 Yes, cell but cannot talk safely ----- **TERMINATE**
 No, not on cell, but own one ----- 36%
 No, not on cell and do not own one ----- 5%
(DON'T READ) DK/NA/REFUSED----- TERMINATE

1. Generally speaking, do you think things in _____ **(READ ITEMS BELOW)** are headed in the right direction, or do you feel that they are off on the wrong track? **(DO NOT ROTATE)**

	<u>RIGHT</u> <u>DIRECTION</u>	<u>WRONG</u> <u>TRACK</u>	<u>(DK/</u> <u>NA)</u>
a. Southern California -----	33 %	49 %	17 %
b. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] -----	26 %	47 %	28 %

2. Now, I would like to ask your impressions of some people and organizations active in public life. As I read each name, please tell me whether your impression of that person or organization is generally favorable or unfavorable. If you don't recognize a name just say so. Here's the first one... **(IF FAVORABLE/UNFAVORABLE, ASK: "Is that very (FAVORABLE/UNFAVORABLE) or just somewhat?") (RANDOMIZE)**

	<u>VERY</u> <u>FAV</u>	<u>SMWT</u> <u>FAV</u>	<u>SMWT</u> <u>UNFAV</u>	<u>VERY</u> <u>UNFAV</u>	<u>(CAN'T</u> <u>RATE</u>	<u>NEVER</u> <u>HEARD</u> <u>OF/DK</u>	<u>TOTAL</u> <u>FAV</u>	<u>TOTAL</u> <u>UNFAV</u>
(ASK SPLIT SAMPLE A ONLY)								
[]a. (T) South Coast Air Quality Management District -----	7 %	20 %	7 %	12 %	10 %	43 %	27 %	19 %
[]b. (T) The California Air Resources Board-----	8 %	13 %	9 %	12 %	13 %	45 %	21 %	21 %

	VERY FAV	SMWT FAV	SMWT UNFAV	VERY UNFAV	(CAN'T RATE	NEVER HEARD OF/DK	TOTAL FAV	TOTAL UNFAV
(ASK SPLIT SAMPLE B ONLY)								
[]c. (T) The AQMD -----	8%	20%	7%	12%	12%	42%	28%	19%
[]d. (T) Your County Board of Supervisors -----	7%	25%	18%	10%	16%	25%	32%	27%

(RESUME ASKING ALL RESPONDENTS)

3. Next, I am going read you the summary of a measure that may appear on the ballot in a future election. The measure may read as follows: **(READ SLOWLY AND CAREFULLY)**

SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE.
To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----47%
Definitely yes-----32%
Probably yes-----12%
Undecided, lean yes-----3%

TOTAL NO-----47%
Undecided, lean no-----1%
Probably no-----8%
Definitely no-----39%

(DON'T READ) DK/NA -----5%

(ASK Q4 ONLY IF CODED 2-7 Q3)

4. If instead of a one-half cent sales tax increase, the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE to reduce air pollution/emissions contributing to climate change and improve public health increased the sales tax by one-quarter cent, would you vote yes in favor of this measure, or no to oppose it? **(IF YES/NO, ASK: "Is that definitely or just probably?")** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: "Do you lean toward voting yes or no?")**

	<u>Q4</u>	<u>Q3/Q4</u>
TOTAL YES -----	37%	58%
Definitely yes -----	9%	44%
Probably yes -----	22%	9%
Undecided, lean yes -----	6%	4%
 TOTAL NO -----	 61%	 42%
Undecided, lean no -----	2%	3%
Probably no -----	6%	4%
Definitely no -----	54%	36%
 (DK/NA) -----	 2%	 0%

(ASK Q5 TO SPLIT SAMPLE A RESPONDENTS ONLY)

5. If this measure was written so the sales tax increase expired after 20 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: "Is that much (MORE/LESS) likely to vote yes or just somewhat?")**

TOTAL MORE LIKELY -----	14%
Much more likely -----	9%
Somewhat more likely -----	5%
 TOTAL LESS LIKELY -----	 17%
Somewhat less likely -----	4%
Much less likely -----	13%
 MAKES NO DIFF/DK/NA -----	 69%
Makes no difference -----	65%
(DON'T READ) DK/NA -----	4%

(ASK Q6 TO SPLIT SAMPLE B RESPONDENTS ONLY)

6. If this measure was written so the sales tax increase expired after 30 years, would that make you more likely or less likely to vote Yes to approve the measure? If it makes no difference to you either way, you can tell me that too. **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 20%

Much more likely----- 12%

Somewhat more likely -----8%

TOTAL LESS LIKELY ----- 12%

Somewhat less likely -----3%

Much less likely-----9%

MAKES NO DIFF/DK/NA ----- 68%

Makes no difference----- 62%

(DON'T READ) DK/NA -----6%

(RESUME ASKING ALL RESPONDENTS)

7. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects that improved local light-rail transit and upgraded regional commuter rail systems in Southern California, would that make you more likely or less likely to vote Yes to approve the measure? **(IF MORE/LESS LIKELY, ASK: “Is that much (MORE/LESS) likely to vote yes or just somewhat?”)**

TOTAL MORE LIKELY ----- 50%

Much more likely----- 32%

Somewhat more likely ----- 17%

TOTAL LESS LIKELY ----- 25%

Somewhat less likely -----7%

Much less likely----- 18%

MAKES NO DIFF/DK/NA ----- 25%

Makes no difference----- 22%

(DON'T READ) DK/NA -----3%

(RESUME ASKING ALL RESPONDENTS)

8. Next, I am going to read some statements. For each one, please tell me if you agree or disagree with it. **(IF AGREE/DISAGREE, ASK: "Is that strongly (AGREE/DISAGREE) or just somewhat?") (RANDOMIZE)**

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
[]a. Cities and counties across Southern California may lose billions of dollars in federal highway funding, as well as suffer from other federal sanctions, if our region does not meet federal clean air standards -----	17%	22%	14%	21%	27%	38%	35%
[]b. The Federal Government is not doing its part to reduce air pollution, and Washington politicians are likely to cut funding for programs to improve air quality in Southern California -----	46%	10%	14%	20%	10%	56%	34%
(ASK SPLIT SAMPLE A ONLY)							
[]c. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will help to reduce asthma, cancer and other diseases, as well as premature death, caused by air pollution -----	39%	26%	10%	21%	4%	65%	31%
[]d. Providing financial incentives to local manufacturers to develop near-zero and zero emission technology will help the local economy and create new economic opportunities -----	37%	25%	17%	15%	6%	62%	32%
[]e. [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County does not receive its fair share to fund programs that would reduce air pollution and improve local air quality -----	22%	12%	11%	16%	40%	34%	27%
[]f. Sacramento politicians should increase funding for programs to improve air quality in Southern California -----	46%	21%	8%	23%	3%	67%	30%

	<u>STR</u> <u>AGREE</u>	<u>SMWT</u> <u>AGREE</u>	<u>SMWT</u> <u>DISAG</u>	<u>STR</u> <u>DISAG</u>	<u>(DK/</u> <u>NA)</u>	<u>TOTAL</u> <u>AGREE</u>	<u>TOTAL</u> <u>DISAGR</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g. Increasing the use of near-zero and zero emission cars, trucks, buses, trains and cargo ships will cut down on air pollution and greenhouse gases that cause climate change-----	48%	26%	6%	18%	2%	74%	24%
[]h. Building new light-rail transit service in each Southern California county as well as expanding Metrolink, our regional commuter rail system, would help to improve air quality, reduce traffic congestion and create thousands of good local jobs -----	44%	24%	5%	21%	6%	69%	26%
[]i. (PT) It is more expensive to deal with the health problems associated with air pollution than it is to fund programs that support the development and accelerated use of clean, zero and near-zero emission vehicles -----	39%	19%	14%	16%	13%	58%	30%
[]j. State government is not doing its part to reduce air pollution -----	24%	21%	30%	16%	9%	45%	45%
[]k. Air pollution is worse in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County than it is in the rest of Southern California -----	19%	22%	20%	25%	14%	41%	45%
(ASK ONLY TO VOTERS IN SAN BERNARDINO & RIVERSIDE COUNTIES)							
[]l. The high number of trucks going to and from distribution centers across the Inland Empire have a significant negative impact on local air quality -----	42%	26%	10%	17%	5%	68%	27%
(ASK ONLY TO VOTERS IN LOS ANGELES & ORANGE COUNTIES)							
[]m. Cargo ships, trains and trucks going in and out of the Ports of L.A. and Long Beach have a significant negative impact on local air quality -----	0%	0%	0%	0%	0%	0%	0%

(RESUME ASKING ALL RESPONDENTS)

NOW I WOULD LIKE TO RETURN TO THE SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE THAT WE DISCUSSED EARLIER. AS YOU MAY RECALL, THIS MEASURE WOULD EXPAND FINANCIAL INCENTIVE PROGRAMS IMPLEMENTED BY AQMD TO REDUCE EMISSIONS FROM AIR POLLUTION SOURCES LIKE CARS, BUSES, TRUCKS, TRAINS AND CARGO FACILITIES THAT CAUSE AIR POLLUTION AND EMISSIONS THAT CONTRIBUTE TO CLIMATE CHANGE BY ACCELERATING THE DEVELOPMENT AND INCREASING THE USE OF NEAR-ZERO AND ZERO EMISSION VEHICLES AND EQUIPMENT IN LOS ANGELES, RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES, THROUGH A HALF CENT SALES TAX INCREASE.

9. I am going to read you some of the different ways funds raised by this measure could be used by AQMD. After I read each one, please tell me how important that use of funds is to you personally: extremely important, very important, somewhat important, or not too important. **(RANDOMIZE)**

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
[Ja. Replacing diesel powered trucks, trains, ships and other vehicles with near-zero and zero emission vehicles-----	21 %	31 %	25 %	19 %	3 %	52 %
(ASK SPLIT SAMPLE A ONLY)						
[Jb. Converting Port of L.A. and Long Beach cargo equipment and vehicles to near-zero and zero emission technology -----	14 %	34 %	21 %	26 %	5 %	48 %
[Jc. Retrofitting ships with emission control systems to reduce air pollution in the Ports of L.A. and Long Beach -----	15 %	25 %	25 %	31 %	4 %	40 %
[Jd. Replacing medium-duty diesel delivery trucks with new, fully-electric battery-powered zero emission medium-duty vehicles-----	15 %	32 %	25 %	24 %	4 %	47 %
[Je. Providing financial incentives for car buyers to purchase zero-emission and advanced hybrid-electric cars -----	16 %	27 %	28 %	28 %	2 %	43 %
[Jf. Providing incentives for single truck owners to buy the cleanest truck equipment and vehicles available -----	8 %	28 %	34 %	26 %	4 %	35 %
[Jg. Replacing diesel school buses with zero-emission battery electric buses or near-zero emission natural gas buses-----	22 %	32 %	18 %	27 %	1 %	54 %
[Jh. Providing funding to help build dedicated lanes for 18-wheelers and other heavy-duty trucks on freeways and highways to relieve traffic congestion and reduce air pollution-----	25 %	37 %	16 %	20 %	2 %	62 %

	<u>EXT</u> <u>IMPT</u>	<u>VERY</u> <u>IMPT</u>	<u>SMWT</u> <u>IMPT</u>	<u>NOT</u> <u>TOO</u> <u>IMPT</u>	<u>(DK/</u> <u>NA)</u>	<u>EXT/</u> <u>VERY</u>
(ASK SPLIT SAMPLE A ONLY CON'T)						
[]i. Upgrading and electrifying the Southern California regional commuter rail systems to improve service, increase ridership and eliminate related diesel emissions -----	13 %	29 %	29 %	24 %	5 %	42 %
[]j. Providing financial incentives to speed up the transition of heavy-duty diesel trucks to near-zero emission natural gas, and/or zero emission electric or hydrogen fuel-cell trucks -----	18 %	31 %	21 %	25 %	4 %	50 %
[]k. Making the movement of cargo and goods more efficient by upgrading ports, rail-lines and other infrastructure so that it both reduces air pollution and boosts the region's economy -----	24 %	29 %	27 %	18 %	1 %	53 %
(ASK SPLIT SAMPLE B ONLY)						
[]l. Replacing older trains with new cleaner models to reduce emissions -----	26 %	32 %	25 %	13 %	4 %	58 %
[]m. Providing incentives to ensure that the cleanest and lowest emitting ships that help reduce air pollution are directed to the Ports of L.A. and Long Beach-----	23 %	23 %	28 %	18 %	8 %	46 %
[]n. Funding incentives for the early changeover of heavy-duty diesel trucks to near-zero emission natural gas trucks and/or zero emission electric or hydrogen fuel-cell trucks -----	25 %	32 %	20 %	21 %	2 %	57 %
[]o. Upgrading infrastructure at the Ports of L.A. and Long Beach that reduce air pollution by allowing ships to use electric power instead of fossil fuels -----	26 %	33 %	21 %	16 %	3 %	59 %
[]p. Replacing older diesel school buses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County school districts with zero emission electric or near-zero emission natural gas buses-----	28 %	33 %	19 %	18 %	3 %	61 %
[]q. Funding programs to help small businesses upgrade to cleaner equipment to help the economy and reduce air pollution at the same time -----	28 %	27 %	28 %	15 %	3 %	55 %
[]r. Electrifying and expanding local light-rail transit lines -----	29 %	20 %	30 %	19 %	3 %	48 %
[]s. Requiring the district to distribute funds generated by a sales tax increase in proportion to each County's population-----	25 %	25 %	23 %	19 %	7 %	51 %

	<u>EXT IMPT</u>	<u>VERY IMPT</u>	<u>SMWT IMPT</u>	<u>NOT TOO IMPT</u>	<u>(DK/ NA)</u>	<u>EXT/ VERY</u>
(ASK SPLIT SAMPLE B ONLY CON'T)						
[]t. Providing manufacturers of zero emission and near-zero emission technology financial incentives to locate manufacturing and business operations in southern California to ensure funds raised create local jobs and support our economy -----	35 %	25 %	21 %	13 %	6 %	60 %
[]u. Providing funding for alternative fueling and electric vehicle charging stations and infrastructure-----	25 %	30 %	23 %	19 %	3 %	55 %

(RESUME ASKING ALL RESPONDENTS)

10. I am going to read you some statements made by people who support the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not a convincing reason to vote yes. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]a. (HEALTH) The air in Southern California's 4-county South Coast region is among the nation's most polluted and exceeds federal health-based air quality standards about 40 percent of the year. Long-term exposure to polluted air can lead to heart and lung illnesses and diseases like asthma, emphysema, and cancer. Passing this measure will help to speed up the transition to near-zero and zero emission vehicles to reduce air pollution and emissions that pose serious health risks. -----	35 %	33 %	10 %	19 %	3 %	68 %
[]b. (TRUCKS-INCENTIVES) Air pollution emissions from heavy-duty, diesel-powered trucks account for 52 percent of all on-road mobile emissions and 31 percent of overall mobile source emissions, which includes off-road sources like ships, trains, construction equipment, and planes in the South Coast region. This ballot measure will allow AQMD to expand incentive programs to truckers and their companies to accelerate their switch to natural gas, electric and other near-zero or zero emission vehicles critical to reducing air pollution and combating emissions that cause climate change. -----	30 %	34 %	13 %	16 %	6 %	64 %

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
[]c.	(ACCOUNTABILITY) To make sure funds are spent efficiently, effectively and as promised, the measure requires strict accountability requirements, including the preparation of a spending plan, to ensure transparency and public oversight. This includes annual financial and performance audits, prohibiting Sacramento from taking any of the funds, and local control over funds so every dollar raised is used to improve air quality in the AQMD four county region. -----	36%	30%	11%	19%	4%	66%
(ASK SPLIT SAMPLE A ONLY)							
[]d.	(FAIRNESS-\$50) This ballot measure to eliminate unhealthy air pollution in the South Coast region will spread the cost among many, including businesses and tourists, and the sales tax is not applied to essential necessities like housing, groceries and prescription medicine. This ballot measure would only cost the typical household about 50 dollars per year, or less than one dollar per week. -----	19%	29%	22%	24%	5%	49%
[]e.	(GHG) Gasoline powered cars, heavy-duty trucks, cargo ships and equipment at the Ports of L.A. and Long Beach, trains and other mobile sources are major sources of greenhouse gas emissions that cause climate change. Passing this measure will enable the AQMD to promote the use of clean technologies to make sure our region is a leader in fighting climate change and creating new economic opportunities for workers. -----	24%	34%	18%	20%	4%	58%
[]f.	(ECONOMY & JOBS) This measure requires the AQMD to give preference to companies that base their manufacturing and operations in southern California because our tax dollars should be used to support our local economy. This will encourage new private sector investments that will create good jobs and new opportunities for local workers and small businesses in [INSERT NAME OF RESPONDENT'S COUNTY: Los Angeles/Orange/Riverside/San Bernardino] County. -----	25%	32%	16%	22%	4%	58%

		<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE B ONLY)							
[]g.	(FAIRNESS-GOODS) About 60 percent of the items coming through the Ports of L.A. and Long Beach stay within the local region. All residents in the South Coast region are consumers of goods and products, which helps our local economy, but these goods, transported by trucks, ships, trains, and planes, cause air pollution throughout Southern California. It is fair and appropriate to ask residents to take responsibility for this pollution by contributing to programs that can help to create cleaner and healthier air for all of us. -----	27%	20%	28%	19%	5%	47%
[]h.	(TRAFFIC CONGESTION) To help reduce traffic congestion throughout the region and at the local level, as well as cutdown on air pollution and create new jobs, this measure funds investments in new local light-rail transit service in each Southern California county and expands Metrolink, our regional commuter rail system, to help get more cars off local freeways and roads.-----	28%	37%	15%	14%	5%	65%
[]i.	(EFFECTIVE) AQMD's grant and incentive programs to reduce air pollution and emissions have improved air quality in the Southland. Summertime smog has been cut to less than one-quarter of what it was in the 1950s, even though the population has tripled and the number of vehicles has increased four-fold since then. This measure will expand these successful programs to replace older, dirtier diesel buses and trucks with 21 st Century zero emission and near-zero emission vehicles. -----	32%	39%	8%	16%	4%	71%
(ASK ONLY TO LOS ANGELES COUNTY VOTERS)							
[]j.	(LA LIVES) Implementing grant and incentive programs to reduce air pollution would prevent over one thousand premature deaths annually of L.A. County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----	0%	0%	0%	0%	0%	0%

<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
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(LOS ANGELES COUNTY VOTERS, CONT.)

[]k. **(LA SAVINGS)** Air pollution costs L.A. County residents and workers up to ten billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated 22 million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% ----- 0%-----0% -----0% **0%**

(ASK ONLY TO ORANGE COUNTY VOTERS)

[]l. **(ORANGE LIVES)** Implementing grant and incentive programs to reduce air pollution would prevent two hundred premature deaths annually of Orange County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% ----- 0%-----0% -----0% **0%**

[]m. **(ORANGE SAVINGS)** Air pollution costs Orange County residents and workers more than one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% ----- 0%-----0% -----0% **0%**

(ASK ONLY TO RIVERSIDE COUNTY VOTERS)

[]n. **(RIVERSIDE LIVES)** Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of Riverside County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----0% -----0% ----- 0%-----0% -----0% **0%**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(RIVERSIDE COUNTY VOTERS CONT.)						
[]o. (RIVERSIDE SAVINGS) Air pollution costs Riverside County residents and workers more than two billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated six million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----0% -----0% -----0%-----0% -----0%						0%
(ASK ONLY TO SAN BERNARDINO COUNTY VOTERS)						
[]p. (SAN BERNARDINO LIVES) Implementing grant and incentive programs to reduce air pollution would prevent one hundred premature deaths annually of San Bernardino County residents by the year 2023. Improving air quality will also significantly reduce the number of days that seniors, children and other people with breathing problems are forced to stay inside. -----26%----- 33% ---- 18% -----20% -----4%						59%
[]q. (SAN BERNARDINO SAVINGS) Air pollution costs San Bernardino County residents and workers one billion dollars every year due to premature death and other health outcomes such as heart and lung diseases, asthma, and stroke. Cleaner air results in lower healthcare costs, healthier workers who are more productive, and an estimated seven million dollars in additional earned wages as fewer people are forced to stay home due to their own illness or their children's illness. -----30%----- 29% ---- 15% -----24% -----3%						59%

(RESUME ASKING ALL RESPONDENTS)

11. Having heard this, let me ask you again about the about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

TOTAL YES-----58%
 Definitely yes-----38%
 Probably yes-----15%
 Undecided, lean yes-----5%

TOTAL NO-----40%
 Undecided, lean no-----1%
 Probably no-----7%
 Definitely no-----32%

(DON'T READ) DK/NA-----2%

(ASK Q12 ONLY TO RESPONDENTS CODED 2-7 IN Q11)

12. To help reduce air pollution, if funds raised by this measure were also invested in traffic congestion relief projects by improving local light-rail transit and upgrading regional commuter rail systems in Southern California, do you think you would vote “yes” in favor or “no” to oppose this ballot measure? **(IF YES/NO, ASK: “Is that definitely or just probably?”)** **(IF UNDECIDED, DON’T KNOW, NO ANSWER, ASK: “Do you lean toward voting yes or no?”)**

	<u>Q12</u>	<u>Q11/Q12</u>
TOTAL YES-----	37%	60%
Definitely yes-----	7%	48%
Probably yes-----	29%	12%
Undecided, lean yes-----	1%	0%
TOTAL NO-----	55%	34%
Undecided, lean no-----	3%	2%
Probably no-----	7%	4%
Definitely no-----	45%	29%
(DK/NA)-----	8%	6%

(RESUME ASKING ALL RESPONDENTS)

13. Here are some statements from people who oppose this ballot measure. After hearing each statement, please tell me whether you find it very convincing, somewhat convincing, or not convincing as a reason to vote no. If you do not believe the statement, please tell me that too. **(RANDOMIZE)**

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(ASK SPLIT SAMPLE A ONLY)						
[]a. (MORE TAXES) Californians already pay some of the highest income and sales taxes in the nation, the state gas tax was raised 12 cents last year and the new federal tax law significantly reduces Californians' deductions. -----	47%	22%	22%	5%	4%	69%
[]b. (WASTE AND PENSIONS) If the AQMD has the authority to raise our local taxes, they will do what every government agency does—waste our money. In addition, instead of using these funds to reduce air pollution, most of it will end up going towards public employees' pension and retirement benefits. -----	34%	28%	13%	21%	4%	62%
[]c. (SOME WON'T PAY) Some cities within AQMD already are taxed at the maximum rate allowed by law and this measure will not increase their taxes. However, those cities will still get the benefit from taxes imposed on other cities. -----	19%	37%	23%	14%	7%	56%
(ASK SPLIT SAMPLE B ONLY)						
[]d. (UNFAIR) This measure is unfair to Southern California residents who are doing their part to reduce air pollution by carpooling, using public transportation, riding a bike or driving electric vehicles. Furthermore, higher sales taxes will hurt those who can least afford it, low-income families and seniors struggling with the high cost of living and rising housing prices. -----	40%	30%	19%	8%	3%	70%
[]e. (OUT OF STATE) Most of the manufacturing for zero emission and near zero emission technology occurs out of state. This tax measure will just divert funds out of the local economy, once again taking middle class jobs out of state. -----	23%	29%	25%	14%	9%	52%

	<u>VERY CONV</u>	<u>SMWT CONV</u>	<u>NOT CONV</u>	<u>DON'T BEL</u>	<u>(DK/ NA)</u>	<u>VERY/ SMWT</u>
(SPLIT SAMPLE B ONLY, CONT.)						
[]f. (CORPORATE WELFARE) The AQMD wants to raise taxes on Southern California residents and then give our money to trucking and cargo companies to pay for new equipment. This corporate welfare is how big business rigs the system at the expense of working families.-----	33%	18%	25%	14%	10%	51%
(ASK ITEM g ONLY TO VOTERS IN RIVERSIDE, SAN BERNARDINO AND ORANGE COUNTIES)						
[]g. (FAIR SHARE) This measure raises taxes on all Southern California residents, but the vast majority of money is likely to be spent in L.A. County. The AQMD has produced no plan and has failed to provide specific information detailing how funds will be distributed fairly among the four counties.-----	37%	36%	12%	10%	6%	72%

(RESUME ASKING ALL RESPONDENTS)

14. Sometimes over the course of a survey like this one people change their minds and sometimes they do not. Let me ask you one more time about the SOUTHERN CALIFORNIA CLEAN AIR AND PUBLIC HEALTH IMPROVEMENT MEASURE. To reduce air pollution/emissions contributing to climate change and improve public health in Los Angeles, Riverside, San Bernardino and Orange Counties, shall the South Coast Air Quality Management District implement financial incentive programs to increase/accelerate the development/use of near-zero and zero emission automobiles, school buses, heavy-duty trucks, trains, ships and construction/cargo equipment funded by a half-cent sales tax increase, generating approximately one-point-four billion dollars annually until ended by voters, requiring audits with funds locally controlled?

If there were an election today, do you think you would vote "yes" in favor or "no" to oppose this ballot measure? **(IF YES/NO, ASK: "Is that definitely or just probably?")** **(IF UNDECIDED, DON'T KNOW, NO ANSWER, ASK: "Do you lean toward voting yes or no?")**

TOTAL YES-----52%
 Definitely yes-----32%
 Probably yes-----17%
 Undecided, lean yes-----3%

TOTAL NO-----45%
 Undecided, lean no-----0%
 Probably no-----8%
 Definitely no-----36%

(DON'T READ) DK/NA-----4%

HERE ARE MY FINAL QUESTIONS. THEY ARE JUST FOR CLASSIFICATION PURPOSES.

15. Do you have children? (IF YES, ASK: "Do you have any children under the age of 19 living at home?")

Yes, children under 19 at home----- 34%
Yes, no children under 19 at home----- 28%
No, no children ----- 37%
(DON'T READ) DK/NA/REFUSED -----1%

16. With which racial or ethnic group do you identify yourself? (READ RESPONSES)

Hispanic/Latino ----- 36%
African-American or Black -----4%
Anglo/White ----- 49%
Asian/Pacific Islander-----4%
Something else -----3%
(DON'T READ) Refused/NA -----4%

17. What was the last level of school you completed?

Grades 1-8 -----2%
Grades 9-11 -----3%
High school graduate----- 15%
Some college/business/vocational school ----- 34%
College graduate ----- 21%
Post-graduate work/professional school ----- 23%
(DON'T READ) Don't know -----2%

18. I don't need to know the exact amount, but I'm going to read you some categories for household income. Would you please stop me when I have read the category indicating the total combined income for all the people in your household before taxes in 2018?

\$25,000 and under----- 15%
\$25,001 - \$50,000 ----- 17%
\$50,001 - \$75,000 ----- 22%
\$75,001 - \$100,000 ----- 12%
\$100,001 - \$150,000 ----- 14%
More than \$150,000-----9%
(DON'T READ) Refused/NA ----- 10%

THANK YOU FOR PARTICIPATING IN OUR SURVEY

Gender:

Male----- 49%
Female----- 51%

Language of Interview

English-----98%
 Spanish -----2%

Party Registration: From file

Democrat-----41%
 Republican-----32%
 No Party Preference-----21%
 Other party-----6%

STATEWIDE FLAGS

G08-----52%
 P10-----24%
 G10-----46%
 P12-----28%
 G12-----61%
 P14-----22%
 G14-----43%
 P16-----48%
 G16-----87%
 P18-----55%
 BLANK-----6%

PERMANENT ABSENTEE

Yes-----67%
 No-----33%

VOTE BY MAIL

1-----20%
 2-----13%
 3+-----23%
 BLANK-----44%

AGE

18-29-----20%
 30-39-----17%
 40-49-----15%
 50-54-----12%
 55-59-----6%
 60-64-----8%
 65-74-----14%
 75+-----6%
 BLANK-----1%

OWN/RENT

Own-----64%
 Rent-----36%

FOREIGN BORN

Yes-----28%
 No-----72%

HOUSEHOLD PARTY

1 DEM-----18%
 2+ DEMS-----13%
 1 REP-----12%
 2+ REPS-----13%
 1 INDEPENDENT-----12%
 MIXED-----32%

COUNTY

Los Angeles-----0%
 Orange-----0%
 San Bernardino-----100%
 Riverside-----0%

SUPERVISORIAL DISTRICT

1-----19%
 2-----23%
 3-----22%
 4-----19%
 5-----17%

INTERVIEW MODE

Phone-----55%
 Online-----45%

A/B SPLIT

Split A-----50%
 Split B-----50%

SB 1 (Atkins)

California Environmental, Public Health, and Workers Defense Act of 2019.

Summary: This bill would require various agencies, including the California Air Resources Board (CARB), to take certain actions regarding federal requirements and standards pertaining to air, water, protected species, and workers' rights and safety, respectively, with the focus of ensuring that continued protections exist for the environment, including air quality, natural resources, and public health in the state even if applicable federal laws are undermined, amended, or repealed.

Background: The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate.

Existing state law regulates the discharge of air pollutants into the atmosphere. The Porter-Cologne Water Quality Control Act regulates the discharge of pollutants into the waters of the state. The California Safe Drinking Water Act establishes standards for drinking water and regulates drinking water systems. The California Endangered Species Act requires the Fish and Game Commission to establish a list of endangered species and a list of threatened species, and generally prohibits the taking of those species.

Existing law provides for the enforcement of laws regulating the discharge of pollutants into the atmosphere and waters of the state. Existing law provides for the enforcement of drinking water standards. Existing law provides for the enforcement of the California Endangered Species Act. Existing federal and state law generally establishes standards for workers' rights and worker safety.

Status: 1/16/2019 -- Referred to Sen. Comms. on EQ., N.R. & W., and JUD.

Specific Provisions: Specifically, this bill would:

- 1) Require CARB to regularly assess proposed and final changes to federal standards.
- 2) Require that at least quarterly, CARB shall publish a list of changes made to the federal standards and provide an assessment on whether a change made to the federal standards is more or less stringent than the baseline federal standards.
- 3) Provide that "Baseline federal standards" means federal standards in effect as of January 19, 2017;
- 4) Provide that if CARB determines that a change to the federal standards is less stringent than the baseline federal standards, it shall consider whether it should adopt

- the baseline federal standards as a measure in order to maintain the state's protections to be at least as stringent as the baseline federal standards;
- 5) Require CARB to publish its list, assessment, and consideration for adoption at least 30 days prior to a vote on adoption on its internet Web site for public comment.
 - 6) Provide that if CARB decides to adopt a measure, it shall adopt the measure either:
 - (a) As an emergency regulation; or
 - (b) By promulgation or amendment of a state policy, plan, or regulation.
 - 7) Authorize a person acting in the public interest to bring an action to enforce certain federal standards and requirements incorporated into the herein-mentioned state laws;
 - 8) Make its provisions inoperative as of January 20, 2025, and would repeal them as of January 1, 2026;
 - 9) Allow a state agency to adopt standards or requirements pursuant to this title, including, but not limited to, by emergency regulations;
 - 10) Determine that the adoption of emergency regulations in furtherance of this title shall be deemed an emergency and necessary for the immediate preservation of the public peace, health, and safety, or general welfare; and
 - 11) Determine that emergency regulations adopted by a state agency under this title shall not be subject to review by the Office of Administrative Law and shall remain in effect until revised or repealed by the state agency, or January 20, 2021, whichever comes first.

Impacts on SCAQMD's Mission, Operations or Initiatives: The bill states that for over four decades, California and its residents have relied on federal laws, including the federal Clean Air Act, the Federal Water Pollution Control Act (Clean Water Act), the federal Safe Drinking Water Act, and the federal Endangered Species Act of 1973, along with their implementing regulations and remedies, to protect our state's public health, environment, and natural resources.

The bill further explains that these federal laws establish standards that serve as the baseline level of public health and environmental protection, while expressly authorizing states like California to adopt more protective measures. The bill continues, that beginning in 2017, a new presidential administration and United States Congress have signaled a series of direct challenges to these federal laws and the protections they provide, as well as to the underlying science that makes these protections necessary, and to the rights of the states to protect their own environment, natural resources, and public health as they see fit. The bill concludes that it is therefore necessary for the Legislature to enact legislation that will ensure continued protections for the environment, natural resources, and public health in the state even if the federal laws mentioned above are undermined, amended, or repealed.

This bill is aligned with SCAQMD's priorities to protect public health by reducing criteria pollutant and toxic emissions, as well as GHG emissions within the South Coast region. A weakening of air quality improvement and protection standards is contrary to the District's

goal to ensure that public health is not negatively impacted by air pollution and climate change.

SCAQMD would like to work with the author regarding the following issues relating to the bill:

- 1) Determining the appropriate roles of and interplay between CARB and local air districts that preserve existing local air district authority, with regard to adopting air quality regulations relating to stationary sources and their emissions when there is backsliding in relevant federal laws identified by CARB;
- 2) Identifying what is the best course of action when a new federal action both strengthens and weakens different parts of a new regulation, as it relates to CARB's duty to assess whether a change in federal standards is more or less stringent than the baseline federal standards; and
- 3) Clarifying the intent behind the sunset date year of 2021 for emergency regulations adopted by a state agency under this bill.

Recommended Position: SUPPORT

Introduced by Senators Atkins, Portantino, and Stern

December 3, 2018

An act to add and repeal Title 24 (commencing with Section 120000) of the Government Code, relating to state prerogative.

LEGISLATIVE COUNSEL'S DIGEST

SB 1, as introduced, Atkins. California Environmental, Public Health, and Workers Defense Act of 2019.

(1) The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate.

Existing state law regulates the discharge of air pollutants into the atmosphere. The Porter-Cologne Water Quality Control Act regulates the discharge of pollutants into the waters of the state. The California Safe Drinking Water Act establishes standards for drinking water and regulates drinking water systems. The California Endangered Species Act requires the Fish and Game Commission to establish a list of endangered species and a list of threatened species, and generally prohibits the taking of those species.

This bill would require specified agencies to take prescribed actions regarding certain federal requirements and standards pertaining to air, water, and protected species, as specified. By imposing new duties on local agencies, this bill would impose a state-mandated local program.

(2) Existing law provides for the enforcement of laws regulating the discharge of pollutants into the atmosphere and waters of the state. Existing law provides for the enforcement of drinking water standards. Existing law provides for the enforcement of the California Endangered Species Act.

This bill would authorize a person acting in the public interest to bring an action to enforce certain federal standards and requirements incorporated into certain of the above-mentioned state laws if specified conditions are satisfied.

(3) Existing federal law generally establishes standards for workers' rights and worker safety.

Existing state law generally establishes standards for workers' rights and worker safety.

This bill would require specified agencies to take prescribed actions regarding certain requirements and standards pertaining to worker's rights and worker safety. The bill would authorize a person acting in the public interest to enforce standards and requirements related to worker's rights and worker safety, as provided.

(5) This bill would make its provisions inoperative as of January 20, 2025, and would repeal them as of January 1, 2026.

(6) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. Title 24 (commencing with Section 120000) is
2 added to the Government Code, to read:

1 TITLE 24. CALIFORNIA ENVIRONMENTAL, PUBLIC
2 HEALTH, AND WORKERS DEFENSE ACT OF 2019

3
4 DIVISION 1. GENERAL PROVISION

5
6 120000. This title shall be known, and may be cited, as the
7 California Environmental, Public Health, and Workers Defense
8 Act of 2019.
9

10 DIVISION 2. ENVIRONMENT, NATURAL RESOURCES,
11 AND PUBLIC HEALTH

12
13 CHAPTER 1. FINDINGS AND DECLARATIONS

14
15 120010. The Legislature finds and declares all of the following:

16 (a) For over four decades, California and its residents have relied
17 on federal laws, including the federal Clean Air Act (42 U.S.C.
18 Sec. 7401 et seq.), the Federal Water Pollution Control Act (Clean
19 Water Act) (33 U.S.C. Sec. 1251 et seq.), the federal Safe Drinking
20 Water Act (42 U.S.C. Sec. 300f et seq.), and the federal Endangered
21 Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), along with their
22 implementing regulations and remedies, to protect our state's public
23 health, environment, and natural resources.

24 (b) These federal laws establish standards that serve as the
25 baseline level of public health and environmental protection, while
26 expressly authorizing states like California to adopt more protective
27 measures.

28 (c) Beginning in 2017, a new presidential administration and
29 United States Congress have signaled a series of direct challenges
30 to these federal laws and the protections they provide, as well as
31 to the underlying science that makes these protections necessary,
32 and to the rights of the states to protect their own environment,
33 natural resources, and public health as they see fit.

34 (d) It is therefore necessary for the Legislature to enact
35 legislation that will ensure continued protections for the
36 environment, natural resources, and public health in the state even
37 if the federal laws specified in subdivision (a) are undermined,
38 amended, or repealed.

39 120011. The purposes of this division are to do all of the
40 following:

(a) Retain protections afforded under the federal laws specified in subdivision (a) of Section 120010 and regulations implementing those federal laws in existence as of January 19, 2017, regardless of actions taken at the federal level.

(b) Protect public health and welfare from any actual or potential adverse effect that reasonably may be anticipated to occur from pollution, including the effects of climate change.

(c) Preserve, protect, and enhance the environment and natural resources in California, including, but not limited to, the state's national parks, national wilderness areas, national monuments, national seashores, and other areas with special national or regional natural, recreational, scenic, or historic value.

(d) Ensure that economic growth will occur in a manner consistent with the protection of public health and the environment and preservation of existing natural resources.

(e) Ensure that any decision made by a public agency that may adversely impact public health, the environment, or natural resources is made only after careful evaluation of all the consequences of that decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

CHAPTER 2. GENERAL PROVISIONS

120030. (a) A state agency may adopt standards or requirements pursuant to this title, including, but not limited to, by emergency regulations in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2.

(b) The adoption of emergency regulations in furtherance of this title shall be deemed an emergency and necessary for the immediate preservation of the public peace, health, and safety, or general welfare.

(c) Notwithstanding Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2, emergency regulations adopted by a state agency under this title shall not be subject to review by the Office of Administrative Law and shall remain in effect until revised or repealed by the state agency, or January 20, 2021, whichever comes first.

CHAPTER 3. OPERATIVE PROVISIONS

Article 1. Air

120040. For purposes of this article, the following definitions apply:

(a) “Air district” means an air quality management or air pollution control district.

(b) “Baseline federal standards” means federal standards in effect as of January 19, 2017.

(c) “Federal standards” means federal laws or federal regulations implementing the federal Clean Air Act (42 U.S.C. Sec. 7401 et seq.) including federal requirements for a state implementation plan, federal requirements for the transportation conformity program, and federal requirements for the prevention of significant deterioration.

(d) “State analogue statute” means the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code) or Division 26 (commencing with Section 39000) of the Health and Safety Code.

(e) “State board” means the State Air Resources Board.

120041. Except as otherwise authorized by state law, all of the following apply:

(a) The state board shall regularly assess proposed and final changes to the federal standards.

(b) (1) At least quarterly, the state board shall publish a list of changes made to the federal standards and provide an assessment on whether a change made to the federal standards is more or less stringent than the baseline federal standards.

(2) If the state board determines that a change to the federal standards is less stringent than the baseline federal standards, the state board shall consider whether it should adopt the baseline federal standards as a measure in order to maintain the state’s protections to be at least as stringent as the baseline federal standards.

(3) The state board shall publish its list, assessment, and consideration for adoption at least 30 days prior to a vote on adoption on its internet Web site for public comment.

1 (c) If the state board decides to adopt a measure pursuant to
2 subdivision (b), the state board shall adopt the measure by either
3 of the following procedures:

4 (1) As an emergency regulation in accordance with Section
5 120030.

6 (2) By promulgation or amendment of a state policy, plan, or
7 regulation.

8 (d) Notwithstanding any other law, the state board, when
9 adopting a measure under paragraph (2) of subdivision (c) may
10 adopt those measures in accordance with Section 100 of Title 1 of
11 the California Code of Regulations and the measures shall be
12 deemed to be a change without regulatory effect pursuant to
13 paragraph (6) of subdivision (a) of that section and not subject to
14 additional notice, procedural, or other considerations contained in
15 state analogue statutes identified in this article. Nothing in this
16 chapter shall affect the imposition of sanctions under the federal
17 Clean Air Act (42 U.S.C. Sec. 7401 et seq.).

18 (e) In the event that the citizen suit provision set forth in Section
19 7604 of Title 42 of the United States Code is amended to restrict,
20 condition, abridge, or repeal the citizen suit provision, the state
21 board may consider the amendment as a change to the federal
22 standards and may adopt the baseline federal standards pursuant
23 to subdivision (c).

24 (f) This article does not prohibit the state board or air districts
25 from establishing rules and regulations for California that are more
26 stringent than the baseline federal standards.

27 120042. (a) An action may be brought by a person in the public
28 interest exclusively to enforce baseline federal standards adopted
29 as a measure pursuant to subdivision (c) of Section 120041 if all
30 of the following requirements are met:

31 (1) At least 60 days prior to initiating the action, a complainant
32 provides a written notice to the Attorney General and the counsel
33 for the state board, a district attorney, county counsel, counsel of
34 the air district, and prosecutor in whose jurisdiction the violation
35 is alleged to have occurred, and the defendant identifying the
36 specific provisions of the measure alleged to be violated.

37 (2) The Attorney General, a district attorney, a city attorney,
38 county counsel, counsel of the state board, counsel of an air district,
39 or a prosecutor has not commenced an action or has not been
40 diligently prosecuting the action.

1 (b) Upon filing the action, the complainant shall notify the
2 Attorney General that the action has been filed.

3 (c) The court may award attorney’s fees pursuant to Section
4 1021.5 of the Code of Civil Procedure, and expert fees and court
5 costs pursuant to Section 1032 of the Code of Civil Procedure, as
6 appropriate, for an action brought pursuant to this section.

7 (d) This section does not limit other remedies and protections
8 available under state or federal law.

9
10 Article 2. Water

11
12 120050. For purposes of this article, the following definitions
13 apply:

14 (a) “Baseline federal standards” means federal standards in
15 effect as of January 19, 2017, including water quality standards,
16 effluent limitations, and drinking water standards.

17 (b) “Board” means the State Water Resources Control Board.

18 (c) “Federal standards” means federal laws or federal regulations
19 implementing the federal Safe Drinking Water Act (42 U.S.C. Sec.
20 300f et seq.) and the Federal Water Pollution Control Act (33
21 U.S.C. Sec. 1251 et seq.) in effect as of January 19, 2017, including
22 water quality standards, effluent limitations, and drinking water
23 standards.

24 (d) “Regional board” means a regional water quality control
25 board.

26 (e) “State analogue statute” mean the Porter-Cologne Water
27 Quality Control Act (Division 7 (commencing with Section 13000)
28 of the Water Code) or the California Safe Drinking Water Act
29 (Chapter 4 (commencing with Section 116270) of Part 12 of
30 Division 103 of the Health and Safety Code).

31 120051. Except as otherwise authorized by state law, all of the
32 following apply:

33 (a) The board shall regularly assess proposed and final changes
34 to the federal standards.

35 (b) (1) At least quarterly, the board shall publish a list of
36 changes made to the federal standards and provide an assessment
37 on whether a change made to the federal standards is more or less
38 stringent than the baseline federal standards.

39 (2) If the board determines that a change to the federal standards
40 is less stringent than the baseline federal standards, the board shall

1 consider whether it should adopt the baseline federal standards as
2 a measure in order to maintain the state's protections to be at least
3 as stringent as the baseline federal standards.

4 (3) The state board shall publish its list, assessment, and
5 consideration for adoption at least 30 days prior to a vote on
6 adoption on its Internet Web site for public comment.

7 (c) If the board decides to adopt a measure pursuant to
8 subdivision (b), the board shall adopt the measure by either of the
9 following procedures:

10 (1) As an emergency regulation in accordance with Section
11 120030.

12 (2) By promulgation or amendment of a state policy for water
13 quality control, a water quality control plan, or regulation.

14 (d) Notwithstanding any other law, the board, when adopting a
15 measure under paragraph (2) of subdivision (c) may adopt those
16 measures in accordance with Section 100 of Title 1 of the
17 California Code of Regulations and the measures shall be deemed
18 to be a change without regulatory effect pursuant to paragraph (6)
19 of subdivision (a) of that section and not subject to additional
20 notice, procedural, or other considerations contained in state
21 analogue statutes identified in this article. Nothing in this chapter
22 shall affect the imposition of sanctions under the federal Clean Air
23 Act (42 U.S.C. Sec. 7401 et seq.).

24 (g) (1) In the event that the citizen suit provision set forth in
25 Section 1365 of Title 33 of the United States Code is amended to
26 restrict, condition, abridge, or repeal the citizen suit provision, the
27 board may consider the amendment as a change to the federal
28 standards and may adopt the baseline federal standards pursuant
29 to subdivision (c).

30 (2) In the event that the citizen suit provision set forth in Section
31 300j-8 of Title 42 of the United States Code is amended to restrict,
32 condition, abridge, or repeal the citizen suit provision, the board
33 may consider the amendment as a change to the federal standards
34 and may adopt the baseline federal standards pursuant to
35 subdivision (c).

36 (h) This article does not prohibit the board or the regional boards
37 from establishing rules and regulations for California that are more
38 stringent than the baseline federal standards.

39 120052. (a) An action may be brought by a person in the public
40 interest exclusively to enforce baseline federal standards adopted

1 as a measure pursuant to subdivision (c) of Section 120051 if all
2 of the following requirements are met:

3 (1) At least 60 days prior to initiating the action, a complainant
4 provides a written notice to the Attorney General and the counsel
5 for the board, a district attorney, county counsel, counsel of the
6 regional board, and prosecutor in whose jurisdiction the violation
7 is alleged to have occurred, and the defendant identifying the
8 specific provisions of the measure alleged to be violated.

9 (2) The Attorney General, a district attorney, a city attorney,
10 county counsel, counsel of the board, counsel of a regional board,
11 or a prosecutor has not commenced an action or has not been
12 diligently prosecuting the action.

13 (b) Upon filing the action, the complainant shall notify the
14 Attorney General that the action has been filed.

15 (c) The court may award attorney's fees pursuant to Section
16 1021.5 of the Code of Civil Procedure, and expert fees and court
17 costs pursuant to Section 1032 of the Code of Civil Procedure, as
18 appropriate, for an action brought pursuant to this section.

19 (d) This section does not limit other remedies and protections
20 available under state or federal law.

21 22 Article 3. Endangered and Threatened Species 23

24 120060. For purposes of this article, "baseline federal
25 standards" means the federal Endangered Species Act of 1973 (16
26 U.S.C. Sec. 1531 et seq.) in effect as of January 19, 2017, its
27 implementing regulations, and any incidental take permits,
28 incidental take statements, or biological opinions in effect as of
29 January 19, 2017.

30 120061. Except as otherwise authorized by state law, the
31 following apply:

32 (a) To ensure no backsliding as a result of any change to the
33 federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et
34 seq.) or its implementing regulations, in the event of the federal
35 delisting of a species that is eligible for protection under the
36 California Endangered Species Act and which is listed as
37 endangered or threatened pursuant to the federal Endangered
38 Species Act of 1973 as of January 1, 2017, or a change in the
39 legally protected status of such a species, including through a
40 change in listing from endangered to threatened, the adoption of

1 a rule pursuant to Section 4(d) of the federal Endangered Species
2 Act, or any amendment to the federal Endangered Species Act of
3 1973 or its implementing regulations, or any exemption from the
4 application of the federal Endangered Species Act of 1973 to a
5 federally listed species as of January 1, 2017, the Fish and Game
6 Commission shall determine whether to list, in accordance with
7 subdivision (b), that species under the California Endangered
8 Species Act pursuant to this section.

9 (b) The Fish and Game Commission shall list the affected
10 species identified in subdivision (a), pursuant to subdivision (c)
11 and without following the regular listing process set forth in Article
12 2 (commencing with Section 2070) of Chapter 1.5 of Division 3
13 of the Fish and Game Code, no later than the conclusion of its
14 second regularly scheduled meeting or within three months,
15 whichever is shorter, after the occurrence of the event described
16 in subdivision (a) unless either the Fish and Game Commission
17 determines that listing of the species is not warranted because it
18 does not meet the criteria in Chapter 1.5 (commencing with Section
19 2050) of Division 3 of the Fish and Game Code or its implementing
20 regulations or the Department of Fish and Wildlife recommends
21 that the species undergo the regular listing process. If the
22 Department of Fish and Wildlife makes a recommendation that
23 the species undergo the regular listing process, the Fish and Game
24 Commission shall either accept the recommendation, in which
25 event the Fish and Game Commission shall be deemed to have
26 accepted a petition for listing the species pursuant to paragraph
27 (2) of subdivision (e) of Section 2074.2 of the Fish and Game
28 Code, or reject the recommendation and immediately list the
29 species pursuant to this subdivision.

30 (c) Notwithstanding any other law or regulation, because a
31 decision by the Fish and Game Commission to list a species
32 without following the regular listing process becomes effective
33 immediately, the Fish and Game Commission shall add that species
34 to the list of endangered or threatened species pursuant to Section
35 100 of Title 1 of the California Code of Regulations, and the
36 addition of that species to the list shall be deemed to be a change
37 without regulatory effect pursuant to paragraph (6) of subdivision
38 (a) of that section.

39 (d) (1) Upon the listing of any species under this section, the
40 Fish and Game Commission or the Department of Fish and Wildlife

1 may authorize the taking of such species as otherwise provided
2 for in the Fish and Game Code. In lieu of authorizing take under
3 the provisions of Chapter 1.5 (commencing with Section 2050) of
4 Division 3 of the Fish and Game Code, the Fish and Game
5 Commission or the Department of Fish and Wildlife may adopt
6 the terms and conditions of any rule promulgated under Section
7 4(d) of the federal Endangered Species Act, federal incidental take
8 statement, incidental take permit, or biological opinion in effect
9 at the time of the event described in subdivision (a).

10 (2) The Department of Fish and Wildlife shall ensure that
11 protections remain in place pursuant to regulation, incidental take
12 permit, or consistency determination that are at least as stringent
13 as required by the baseline federal standards, as determined by the
14 Department of Fish and Wildlife.

15 (3) This subdivision does not prohibit the Department of Fish
16 and Wildlife from establishing conditions that are more stringent
17 than the baseline federal standards.

18 (e) Any species listed pursuant to this section shall be subject
19 to the provisions in the California Endangered Species Act in the
20 same manner as any other listed species, including those provisions
21 related to a change in listing status or delisting.

22 (f) For those species that the Fish and Game Commission lists
23 pursuant to subdivision (b), or for which baseline federal standards
24 are retained pursuant to subdivision (d), the California
25 Environmental Quality Act (Division 13 (commencing with Section
26 21000) of the Public Resources Code) shall not apply.

27 (g) The provisions of the California Endangered Species Act
28 are measures “relating to the control, appropriation, use, or
29 distribution of water” within the meaning of Section 8 of the federal
30 Reclamation Act of 1902 (43 U.S.C. Section 383) and shall apply
31 to the United States Bureau of Reclamation’s operation of the
32 federal Central Valley Project.

33 DIVISION 3. LABOR STANDARDS

34 CHAPTER 1. DEFINITIONS

35
36
37
38 120100. For purposes of this division, the following definitions
39 apply:

1 (a) “Baseline federal standards” means federal standards in
2 effect as of January 1, 2017.

3 (b) “Board” means the Occupational Safety and Health
4 Standards Board.

5 (c) “Department” means the Department of Industrial Relations.

6 (d) “Federal standards” means the federal Fair Labor Standards
7 Act of 1938, as amended (29 U.S.C. Sec. 201 et seq.), the federal
8 Occupational Safety and Health Act of 1970, as amended (29
9 U.S.C. Sec. 651 et seq.), the Federal Coal Mine Health and Safety
10 Act of 1969, as amended (30 U.S.C. Sec. 801 et seq.), or
11 regulations established pursuant to those federal statutes.

12
13 CHAPTER 2. OPERATIVE PROVISIONS
14

15 120110. Except as otherwise authorized by state law, all of the
16 following apply:

17 (a) The board and the department shall regularly assess proposed
18 and final changes to the federal standards.

19 (b) (1) At least quarterly, the board and the department shall
20 publish a list of changes made to the federal standards and provide
21 an assessment on whether a change made to the federal standards
22 is more or less stringent than the baseline federal standards.

23 (2) If the board or the department, as appropriate, determines
24 that a change to the federal standards is less stringent than the
25 baseline federal standards, the board shall consider whether it
26 should adopt the baseline federal standards as a measure in order
27 to maintain the state’s protections to be at least as stringent as the
28 baseline federal standards.

29 (3) The board and the department shall publish its list,
30 assessment, and consideration for adoption at least 30 days prior
31 to a vote on adoption on its Internet Web site for public comment.

32 (c) If the board or the department, as appropriate, decides to
33 adopt a measure pursuant to subdivision (b), the board or the
34 department shall adopt the measure by an emergency regulation
35 in accordance with Section 120030.

36 (d) Notwithstanding any other law, the board or department,
37 when adopting a measure under subdivision (c) may adopt those
38 measures in accordance with Section 100 of Title 1 of the
39 California Code of Regulations and the measures shall be deemed
40 to be a change without regulatory effect pursuant to paragraph (6)

1 of subdivision (a) of that section and not subject to additional
2 notice, procedural, or other considerations contained in state
3 analogue statutes.

4 (e) This division does not prohibit the board or the department
5 from establishing rules and regulations for California that are more
6 stringent than the baseline federal standards.

7 120111. (a) An action may be brought by a person in the public
8 interest exclusively to enforce a measure adopted pursuant to
9 subdivision (c) of Section 120110 if all of the following
10 requirements are met:

11 (1) At least 60 days prior to initiating the action, a complainant
12 provides a written notice to the Attorney General and the counsels
13 for the board or department, as appropriate, a district attorney, a
14 city attorney, county counsel, and a prosecutor in whose
15 jurisdiction the violation is alleged to have occurred, and the
16 defendant identifying the specific provisions of the measure alleged
17 to be violated.

18 (2) The Attorney General, a district attorney, a city attorney,
19 county counsel, the counsel for the board or department, as
20 appropriate, or a prosecutor has not commenced an action or has
21 not been diligently prosecuting the action.

22 (b) Upon filing the action, the complainant shall notify the
23 Attorney General that the action has been filed.

24 (c) The court may award attorney's fees pursuant to Section
25 1021.5 of the Code of Civil Procedure, and expert fees and court
26 costs pursuant to Section 1032 of the Code of Civil Procedure, as
27 appropriate, for an action brought pursuant to this section.

28 (d) This section does not limit other remedies and protections
29 available under state or federal law.

30
31 DIVISION 4. MISCELLANEOUS
32

33 120200. The provisions of this title are severable. If any
34 provision of this title or its application is held invalid, that
35 invalidity shall not affect other provisions or applications that can
36 be given effect without the invalid provision or application.

37 120202. (a) This title shall become inoperative on January
38 20, 2025, and, as of January 1, 2026, is repealed.

1 (b) Notwithstanding subdivision (a), any action brought pursuant
2 to this title on or before January 20, 2025, may proceed to a final
3 judgment.

4 SEC. 2. No reimbursement is required by this act pursuant to
5 Section 6 of Article XIII B of the California Constitution because
6 a local agency or school district has the authority to levy service
7 charges, fees, or assessments sufficient to pay for the program or
8 level of service mandated by certain mandates in this act, within
9 the meaning of Section 17556 of the Government Code.

10 However, if the Commission on State Mandates determines that
11 this act contains other costs mandated by the state, reimbursement
12 to local agencies and school districts for those costs shall be made
13 pursuant to Part 7 (commencing with Section 17500) of Division
14 4 of Title 2 of the Government Code.

Assembly Bill 142 (Garcia)
Lead-acid batteries

Summary: This bill would double a current manufacturer battery fee from \$1 to \$2 imposed by the Lead-Acid Battery Recycling Act of 2016 (Act) on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. This bill also removes a sunset date related to this fee.

Background: The Act prohibits a person from disposing, or attempting to dispose, of a lead-acid battery at a solid waste facility or on or in any land, surface waters, watercourses, or marine waters, but authorizes a person to dispose of a lead-acid battery at certain locations. The Act requires, until March 31, 2022, a manufacturer battery fee of \$1 to be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. The Act requires the manufacturer battery fee to be paid to the California Department of Tax and Fee Administration and requires dealers and manufacturers of lead-acid batteries to register with the department.

The Act requires manufacturer battery fees to be credited against amounts owed by the manufacturer to the state under a judgment or determination of liability under specific hazardous materials provisions or any other law for removal, remediation, or other response costs relating to a release of a hazardous substance from a lead-acid battery recycling facility.

The Act requires a portion of moneys from the manufacturer battery fee to be deposited into the Lead-Acid Battery Cleanup Fund and provides that moneys in the Fund are available upon appropriation by the Legislature to the Department of Toxic Substances Control for specified activities, including cleanup of contamination caused by lead acid batteries throughout the state and the repayment of loans from the General Fund to the Toxic Substances Control Account for the cleanup of lead contamination in the state.

Status: 1/24/2019 - Referred to Com. on E.S. & T.M.

Specific Provisions: Specifically, this bill would:

- 1) As of April 1, 2022, double the current manufacturer battery fee from \$1 to \$2 imposed by the Lead-Acid Battery Recycling Act of 2016 on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California;
- 2) Remove the sunset date that applies to this manufacturer battery fee and provide that the fee would continue indefinitely;
- 3) Authorize a person who manufactures a lead-acid battery and is not subject to the jurisdiction of the state to agree in writing with the importer of that lead-acid battery to pay the manufacturer battery fee on behalf of the importer;
- 4) Require that manufacturer battery fees be credited to the account of the manufacturer remitting those fees;
- 5) Authorize expenditure of moneys from the Lead-Acid Battery Cleanup Fund for the repayment of specified loans only after specified activities have been fully funded, including cleanup or

- other response actions at any area contaminated by operation of a lead-acid battery recycling facility in the state, and related administration and implementation costs;
- 6) Clarify that the existing consumer battery fee shall not apply to any person when a replacement lead-acid battery is included in any used vehicle sold or leased by a new motor vehicle dealer; and
 - 7) Take effect immediately as an urgency statute.

Impacts on SCAQMD's Mission, Operations or Initiatives:

This bill would not impact SCAQMD's authority or jurisdiction over lead-acid battery recycling operations, or the monitoring of the forthcoming deconstruction of the closed Exide Technologies battery recycling plant in Vernon, California. From the funds generated by this bill's fees and existing related fees, the bill would only allow repayment of the \$176.6 million loan from the state, meant to help with clean-up of soil contamination from the Exide facility, until the clean-up of the Exide contamination and of other areas in the state that may be contaminated by lead acid batteries has been completed.

The bill is consistent with SCAQMD's environmental justice policy priorities and would help reduce toxic exposure to disadvantaged communities within the South Coast region, thereby helping to protect public health.

Recommended Position: SUPPORT

ASSEMBLY BILL

No. 142

**Introduced by Assembly Member Cristina Garcia
(Coauthors: Assembly Members Carrillo and Santiago)**

December 13, 2018

An act to amend Sections 25215.1, 25215.2, 25215.25, 25215.35, 25215.45, 25215.5, and 25215.56 of, and to add Sections 25215.3 and 25215.48 to, the Health and Safety Code, relating to hazardous waste, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL’S DIGEST

AB 142, as introduced, Cristina Garcia. Lead-acid batteries.

The Lead-Acid Battery Recycling Act of 2016 prohibits a person from disposing, or attempting to dispose, of a lead-acid battery at a solid waste facility or on or in any land, surface waters, watercourses, or marine waters, but authorizes a person to dispose of a lead-acid battery at certain locations. The act requires, until March 31, 2022, a manufacturer battery fee of \$1 to be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. The act requires the manufacturer battery fee to be paid to the California Department of Tax and Fee Administration and requires dealers and manufacturers of lead-acid batteries to register with the department. The act defines “manufacturer” for these purposes.

This bill would increase the amount of the manufacturer battery fee to \$2 and would provide that the fee would continue indefinitely. The bill would authorize a person who manufactures a lead-acid battery and is not subject to the jurisdiction of the state to agree in writing with the

importer, as defined, of that lead-acid battery to pay the manufacturer battery fee on behalf of the importer. The bill would exempt an importer who has an agreement of this type with a manufacturer, and who meets other specified requirements, from the requirement to register with the department. The bill would require the department, on or before January 1, 2020, to submit to the Legislature a report that includes, among other things, any regulations or policies adopted by the department for purposes of ensuring compliance with the registration, returns, reporting, payments, audits, refunds, or collection requirements related to the manufacturer battery fee.

The act requires manufacturer battery fees remitted pursuant to these provisions to be credited against amounts owed by the manufacturer to the state under a judgment or determination of liability under specific hazardous materials provisions or any other law for removal, remediation, or other response costs relating to a release of a hazardous substance from a lead-acid battery recycling facility.

This bill would additionally require that manufacturer battery fees remitted pursuant to these provisions be credited to the account of the manufacturer remitting those fees. The bill would require that a person who agrees in writing to pay the manufacturer battery fee on behalf of an importer be credited for a payment of the manufacturer battery fee only if certain conditions are met, including that the person provide to the purchaser of a lead-acid battery a statement that includes specified information on the invoice, contract, or other record documenting the transaction. The bill would relieve a purchaser of a lead-acid battery who receives that statement in a timely manner, and any subsequent purchaser of that battery, from liability for the manufacturer battery fee that would otherwise be imposed on the sale of that battery, provided that the manufacturer remits payment of the manufacturer battery fee to the state for the sale of that battery. The bill would authorize an importer who has paid the manufacturer battery fee and who receives an untimely statement that the fee has been paid for that battery to file a claim for a refund of any overpaid fees.

The bill would authorize the department to disclose the name, address, account number, and account status of a person registered with the department to pay the manufacturer battery fee. The bill would provide that account status does not include the amount of the manufacturer battery fee paid by any person.

The act requires a specified portion of moneys from the manufacturer battery fee to be deposited into the Lead-Acid Battery Cleanup Fund

and provides that moneys in the fund are available upon appropriation by the Legislature to the Department of Toxic Substances Control for specified activities, including the repayment of specified loans.

This bill would authorize expenditure of moneys from the Lead-Acid Battery Cleanup Fund for the repayment of those loans only after the other specified activities have been fully funded.

The act imposes a California battery fee on a person for specified types of replacement lead-acid batteries purchased from a dealer.

This bill would provide, if a new motor vehicle dealer sells or leases to a person a used vehicle into which the new motor vehicle dealer has incorporated a replacement lead-acid battery, that the California battery fee does not apply to the person with regard to that replacement lead-acid battery.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: $\frac{2}{3}$. Appropriation: no. Fiscal committee: yes.

State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 25215.1 of the Health and Safety Code
2 is amended to read:

3 25215.1. For purposes of this article, the following definitions
4 shall apply:

5 (a) "Board" means ~~State Board of Equalization~~; *the California*
6 *Department of Tax and Fee Administration*.

7 (b) "Business" means any person, as defined in subdivision ~~(j)~~,
8 *(k)*, except a natural person or a city, county, city and county,
9 district, commission, the state, or any department, agency, or
10 political subdivision of any of those, or an interstate body or, to
11 the extent permitted by law, the United States and its agencies and
12 instrumentalities.

13 (c) "California battery fee" means the fee imposed pursuant to
14 Section 25215.25.

15 (d) "Dealer" means ~~every~~ *a* person who engages in the retail
16 sale of replacement lead-acid batteries directly to persons in
17 California. "Dealer" includes a manufacturer of a new lead-acid
18 battery that sells at retail that lead-acid battery directly to a person
19 through any means, including, but not limited to, a transaction

1 conducted through a sales outlet, catalog, or Internet Web site or
2 any other similar electronic means.

3 (e) *“Importer” means a person described in paragraph (2) of*
4 *subdivision (h).*

5 ~~(e)~~

6 (f) *“Lead-acid battery” means ~~any~~ a battery weighing over five*
7 *kilograms that is primarily composed of both lead and sulfuric*
8 *acid, whether sulfuric acid is in liquid, solid, or gel state, with a*
9 *capacity of six volts or more that is used for any of the following*
10 *purposes:*

11 (1) As a starting battery that is designed to deliver a high burst
12 of energy to an internal combustion engine until it starts.

13 (2) As a motive power battery that is designed to provide the
14 source of power for propulsion or operation of a vehicle, including
15 a watercraft.

16 (3) As a stationary storage or standby battery that is designed
17 to be used in systems where the battery acts as either electrical
18 storage for electricity generation equipment or a source of
19 emergency power, or otherwise serves as a backup in case of failure
20 or interruption in the flow of power from the primary source.

21 (4) As a source of auxiliary power to support the electrical
22 systems in a vehicle, as defined in Section 670 of the Vehicle Code,
23 including a vehicle as defined in Section 36000 of the Vehicle
24 Code, or an aircraft.

25 ~~(f)~~

26 (g) *“Lead-acid battery recycling facility” means ~~any~~ a site at*
27 *which lead-acid batteries are or have been disassembled for the*
28 *purpose of making components available for reclamation to*
29 *produce elemental lead or lead alloys or at which lead-acid batteries*
30 *or their components, or both, are or have been reclaimed to produce*
31 *elemental lead or lead alloys.*

32 ~~(g)~~

33 (h) *“Manufacturer” means either of the following:*

34 (1) The person who manufactures the lead-acid battery and who
35 sells, offers for sale, or distributes the lead-acid battery in the state.

36 (2) (A) If there is no person described in paragraph (1) that is
37 subject to the jurisdiction of the state, the manufacturer is the
38 person who imports the lead-acid battery into the state for sale or
39 distribution.

1 (B) For purposes of this article, a person is subject to the
2 jurisdiction of the state with respect to a lead-acid battery if the
3 person is engaged in business in this state. For purposes of this
4 subparagraph, a person shall be considered to be engaged in
5 business in this state if the person is a “retailer engaged in business
6 in this state,” as defined in subdivision (c) of Section 6203 of the
7 Revenue and Taxation Code, with respect to that lead-acid battery,
8 or if the person has a substantial nexus with this state for purposes
9 of the commerce clause of the United States Constitution.

10 ~~(h)~~

11 (i) “Manufacturer battery fee” means the fee imposed pursuant
12 to Section 25215.35.

13 ~~(i)~~

14 (j) “Owner or operator” has the same meaning given in Section
15 9601(20) of Title 42 of the United States Code and any person that
16 previously met that definition or is the legal successor to a person
17 that meets the definition or previously met the definition.

18 ~~(j)~~

19 (k) “Person” means an individual, trust, firm, joint stock
20 company, business concern, corporation, including, but not limited
21 to, a government corporation, partnership, limited liability
22 company, or association. “Person” also includes any city, county,
23 city and county, district, commission, the state, or any department,
24 agency, or political subdivision of any of those, interstate body,
25 and the United States and its agencies and instrumentalities to the
26 extent permitted by law.

27 ~~(k)~~

28 (l) “Remedial action” has the same meaning as in Section
29 25322.

30 ~~(l)~~

31 (m) “Removal” has the same meaning as in Section 25323.

32 ~~(m)~~

33 (n) “Replacement lead-acid battery” means a new lead-acid
34 battery that is sold at retail subsequent to the original sale or lease
35 of the equipment or vehicle in which the lead-acid battery is
36 intended to be used. “Replacement lead-acid battery” does not
37 include a spent, discarded, refurbished, reconditioned, rebuilt, or
38 reused lead-acid battery.

39 ~~(n)~~

(o) “Response action” has the same meaning as in Section 25323.3.

~~(p)~~

(p) (1) A “retail sale” or a “sale at retail” has the same meaning as defined in Section 6007 of the Revenue and Taxation Code.

(2) ~~“Retail”~~ *The following shall not be considered a “retail sale” does not include any or a “sale at retail” for purposes of the following; this article:*

(A) The sale of a battery for which a California battery fee has previously been paid.

(B) The sale of a replacement lead-acid battery that is temporarily stored or used in California for the sole purpose of preparing the replacement lead-acid battery for use thereafter solely outside of the state and that is subsequently transported outside the state and thereafter used solely outside of the state.

(C) The sale of a battery for incorporation into new equipment for subsequent resale.

(D) The replacement of a lead-acid battery pursuant to a warranty or a vehicle service contract described under Section 12800 of the Insurance Code.

(E) The sale of any battery intended for use with or contained within a medical device, as defined in the ~~federal~~ *Federal Food, Drug, and Cosmetic Act (21 U.S.C. Sec. 321(h))* as that definition may be amended.

~~(p)~~

(q) “Used lead-acid battery” means a lead-acid battery no longer fully capable of providing the power for which it was designed or that a person no longer wants for any other reason.

~~(q)~~

(r) “Wholesaler” means ~~any~~ *a* person who purchases a lead-acid battery from a manufacturer for the purpose of selling the lead-acid battery to a dealer, high-volume customer, or ~~to a~~ person for incorporation into new equipment for resale.

SEC. 2. Section 25215.2 of the Health and Safety Code is amended to read:

25215.2. (a) A dealer shall accept from ~~persons~~ *a person* at the point of transfer a used lead-acid battery of a type listed in paragraph (1), (2), or (4) of subdivision ~~(e)~~ *(f)* of Section 25215.1, but shall not be required to accept from any person more than six

1 used lead-acid batteries per day. A dealer shall not charge ~~any~~ a
2 fee to receive a used lead-acid battery.

3 (b) On and after April 1, 2017, a dealer shall charge to ~~each~~ a
4 person who purchases a replacement lead-acid battery of a type
5 listed in paragraph (1), (2), or (4) of subdivision ~~(e)~~ (f) of Section
6 25215.1 and who does not simultaneously provide the dealer with
7 a used lead-acid battery of the same type and size a refundable
8 deposit for each such battery purchased. The dealer shall display
9 the amount of the deposit separately on the receipt provided to the
10 purchaser. The dealer shall refund the deposit to that person if,
11 within 45 days of the sale of the replacement lead-acid battery, the
12 person presents to the dealer a used lead-acid battery of the same
13 type and size. A dealer may require the person to provide a receipt
14 documenting the payment of the deposit before refunding any
15 deposit. A dealer may keep any lead-acid battery deposit moneys
16 that are not properly claimed within 45 days after the date of sale
17 of the replacement lead-acid battery, not including any sales tax
18 reimbursement charged to the consumer. Sales tax reimbursement
19 charged to the consumer on the amount of the deposit shall be
20 remitted to the ~~board~~. *California Department of Tax and Fee*
21 *Administration*.

22 (c) A dealer shall post a written notice that is clearly visible in
23 the public sales area of the establishment, or include on the
24 purchaser's receipt, the following language:

25
26
27 This dealer is required by law to charge a nonrefundable \$1 California battery
28 fee and a refundable deposit for each lead-acid battery purchased.

29
30 A credit of the same amount as the refundable deposit will be issued if a used
31 lead-acid battery is returned at the time of purchase or up to 45 days later along
32 with this dealer's receipt.

33
34 (d) The department shall provide notice of an alleged violation
35 of subdivision (c) to any person alleged to be in violation of that
36 subdivision no less than 60 days before the issuance of an order
37 or filing an action imposing a civil penalty pursuant to subdivision
38 (b) of Section 25189.2. If the person corrects the alleged violation
39 before the order is issued or the action is filed the department shall
40 not impose the civil penalty.

(e) Subdivision (c) does not apply to any of the following:

(1) A person whose ordinary course of business does not include the sale of lead-acid batteries.

(2) A person that does not sell lead-acid batteries directly to consumers, such as over-the-counter, but instead removes nonfunctional or damaged batteries and installs new lead-acid batteries as a part of an automotive repair dealer service.

(3) A business that removes lead-acid batteries and installs new lead-acid batteries as a part of roadside services. “Roadside services,” for purposes of this paragraph, means the services performed upon a motor vehicle for the purpose of transporting the vehicle or to permit it to be operated under its own power, by or on behalf of a motor club holding a certificate of authority pursuant to Chapter 2 (commencing with Section 12160) of Part 5 of Division 2 of the Insurance Code.

(f) Except as authorized by this article, a dealer shall not collect a refundable deposit for a lead-acid battery from a person.

SEC. 3. Section 25215.25 of the Health and Safety Code is amended to read:

25215.25. (a) (1) ~~On and after April 1, 2017, until March 31, 2022, a~~ California battery fee of one dollar (\$1) shall be imposed on a person for each replacement lead-acid battery of a type listed in paragraph (1), (2), or (4) of subdivision ~~(e)~~ (f) of Section 25215.1 purchased from a ~~dealer~~. *dealer; except as specified in subdivision (c).* On and after April 1, 2017, until March 31, 2022, the amount of the fee shall be one dollar (\$1). *On and after April 1, 2022, the amount of the fee shall be two dollars (\$2).*

(2) Except for sales to businesses, the dealer shall charge a person the amount of the California battery fee as a charge that is separate from, and not included in, any other fee, charge, or other amount paid by the person.

(3) The dealer shall collect the California battery fee at the time of sale and may retain 1 ½ percent of the fee as reimbursement for any costs associated with the collection of the fee. The remainder of the California battery fee collected by the dealer shall be paid to the ~~board~~ California Department of Tax and Fee Administration in a manner and form prescribed by the ~~board~~ California Department of Tax Fee Administration and at the time the return is required to be filed, as specified in Section 25215.47.

1 (4) All moneys collected *or required to be collected* by a dealer
2 pursuant to this section that are not properly remitted to the ~~board~~
3 *California Department of Tax and Fee Administration* pursuant
4 to paragraph (3) shall be deemed to be a debt owed to the state by
5 the dealer.

6 (5) A person who purchases a replacement lead-acid battery in
7 this state is liable for the California battery fee until that fee has
8 been paid to the ~~board~~, *California Department of Tax and Fee*
9 *Administration*, except that payment to a dealer registered under
10 this article is sufficient to relieve the person from further liability
11 of the fee.

12 (6) All moneys remitted to the ~~board~~ *California Department of*
13 *Tax and Fee Administration* pursuant to this subdivision shall be
14 expended in accordance with Section 25215.5.

15 (b) (1) Except for sales to businesses, the California battery fee
16 imposed pursuant to subdivision (a) shall be separately stated by
17 the dealer on the invoice given to a person at the time of sale. Any
18 other fee charged by the dealer related to the lead-acid battery
19 purchase, including any deposit charged, credited, or both, pursuant
20 to Section 25215.2, shall be identified separately from the
21 California battery fee.

22 (2) If a person purchases more than one lead-acid battery in a
23 single transaction, and is therefore imposed more than one
24 California ~~lead-acid~~ battery fee in that transaction, the dealer shall
25 not be required to individually list on the invoice each California
26 ~~lead-acid~~ battery fee imposed, but may instead condense the fees
27 to a single-line item.

28 (c) *If a new motor vehicle dealer sells or leases to a person a*
29 *used vehicle into which the new motor vehicle dealer has*
30 *incorporated a replacement lead-acid battery, the California*
31 *battery fee imposed by paragraph (1) of subdivision (a) shall not*
32 *apply to the person with regard to that replacement lead-acid*
33 *battery. For purposes of this subdivision, “new motor vehicle*
34 *dealer” has the same meaning as is specified in Section 426 of the*
35 *Vehicle Code, and “used vehicle” has the same meaning as is*
36 *specified in Section 665 of the Vehicle Code.*

37 SEC. 4. Section 25215.3 is added to the Health and Safety
38 Code, to read:

39 25215.3. (a) A person who manufactures a lead-acid battery
40 and is not subject to the jurisdiction of the state may agree in

1 writing with the importer of that lead-acid battery to pay the
2 manufacturer battery fee imposed pursuant to Section 25215.35
3 on behalf of the importer.

4 (b) A person who pays the manufacturer battery fee on behalf
5 of an importer pursuant to subdivision (a) shall be credited,
6 pursuant to Section 25215.56, for that payment, if the person does
7 all of the following:

8 (1) The person submits to the jurisdiction of the state for
9 purposes of the fees imposed under this article and registers with
10 the California Department of Tax and Fee Administration to pay
11 and remit the manufacturer battery fee.

12 (2) The person provides to the purchaser a statement on the
13 invoice, contract, or other record documenting the transaction that
14 includes the following information:

15 (A) The person's manufacturer account number with the
16 California Department of Tax and Fee Administration.

17 (B) An identification of the lead-acid battery or batteries sold
18 that will be subject to the manufacturer battery fee.

19 (C) A statement that the person will pay the manufacturer battery
20 fee to the state on behalf of the importer.

21 (3) The person retains records sufficient to document that the
22 lead-acid battery for which the person has agreed to pay the
23 manufacturer battery fee was delivered for retail sale in California,
24 the identity of the purchaser of that battery, and that the statement
25 required by paragraph (2) was provided to the purchaser of the
26 battery in a timely manner pursuant to subdivision (c). The person
27 shall retain these records for a period of no less than four years
28 and shall make the records reasonably available to the California
29 Department of Tax and Fee Administration upon request.

30 (c) (1) A purchaser of a lead-acid battery who receives a timely
31 statement from a manufacturer pursuant to paragraph (2) of
32 subdivision (b), and any subsequent purchaser of that battery, shall
33 be relieved from any obligation imposed pursuant to Section
34 25215.35 on the sale of that battery, provided that the manufacturer
35 remits payment of the manufacturer battery fee to the state for the
36 sale of that battery. A statement shall be considered timely if it is
37 issued before the manufacturer bills the purchaser for the lead-acid
38 battery, within the manufacturer's normal billing and payment
39 cycle, before delivery of the battery to the purchaser, or before the
40 date on which a return would be due pursuant to Section 25215.47.

(2) An importer who has paid the manufacturer battery fee for a lead-acid battery and who subsequently receives an untimely statement that the fee has been paid for that battery may file a claim for a refund for any overpaid fees as provided in Article 3 (commencing with Section 55081) of Chapter 3 of, and Article 1 (commencing with Section 55221) of Chapter 5 of, Part 30 of Division 2 of the Revenue and Taxation Code.

(d) (1) On or before January 1, 2021, the California Department of Tax and Fee Administration shall submit to the Legislature a report relating to persons who have paid the manufacturer battery fee on behalf of an importer pursuant to subdivision (a). The report shall include, but is not limited to, all of the following information:

(A) Any regulations or policies adopted by the California Department of Tax and Fee Administration for purposes of ensuring compliance with the registration, returns, reporting, payments, audits, refunds, or collection requirements related to the manufacturer battery fee.

(B) The revenue impact as determined by the revenues paid or collected compared to the estimated revenue amount calculated by the Senate Committee on Appropriations in its analysis of the fiscal impact of Assembly Bill 2153 (Chapter 666 of the Statutes of 2016), adjusted as deemed appropriate by the California Department of Tax and Fee Administration to account for differences in reporting periods and to account for exemptions or exclusions that were not previously accounted for in that analysis or that were enacted after January 1, 2018.

(C) The fiscal impact of the manufacturer battery fee, including costs required to ensure compliance, costs related to audits, refunds, and administering regulations, and estimated cost savings.

(2) A report required to be submitted pursuant to this subdivision shall be submitted in compliance with Section 9795 of the Government Code.

(3) Pursuant to Section 10231.5 of the Government Code, the requirement for submitting a report pursuant to this subdivision is inoperative on January 1, 2025.

SEC. 5. Section 25215.35 of the Health and Safety Code is amended to read:

25215.35. (a) ~~On and after April 1, 2017, a~~ manufacturer battery fee of ~~one dollar (\$1)~~ *two dollars (\$2)* shall be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it

1 sells at retail to a person in California or that it sells to a dealer,
2 wholesaler, distributor, or other person for retail sale in California.

3 (b) Manufacturer battery fees shall be paid to the ~~board~~
4 *California Department of Tax and Fee Administration* in a manner
5 and form as prescribed by the ~~board~~ *California Department of Tax*
6 *and Fee Administration* and at the time the return is required to
7 be filed, as specified in Section 25215.47.

8 ~~(e) This section shall become inoperative on April 1, 2022, and,~~
9 ~~as of January 1, 2023, is repealed, unless a later enacted statute,~~
10 ~~that becomes operative on or before January 1, 2023, deletes or~~
11 ~~extends the dates on which it becomes inoperative and is repealed.~~

12 SEC. 6. Section 25215.45 of the Health and Safety Code is
13 amended to read:

14 25215.45. (a) (1) Except as provided in paragraph (2), the
15 lead-acid battery fees imposed pursuant to Sections 25215.25 and
16 25215.35 shall be collected by the ~~board~~ *California Department*
17 *of Tax and Fee Administration* in accordance with the Fee
18 Collection Procedures Law (Part 30 (commencing with Section
19 55001) of Division 2 of the Revenue and Taxation Code). For the
20 purposes of this section, the reference to “feepayer” shall include
21 a dealer and manufacturer.

22 (2) Notwithstanding the petition for redetermination and claim
23 for refund provisions of the Fee Collection Procedures Law (Article
24 3 (commencing with Section 55081) of Chapter 3 of, and Article
25 1 (commencing with Section 55221) of Chapter 5 of, Part 30 of
26 Division 2 of the Revenue and Taxation Code), the ~~board~~
27 *California Department of Tax and Fee Administration* shall not
28 do either of the following:

29 (A) Accept or consider any petition for redetermination of fees
30 determined under this article if the petition is founded upon the
31 grounds that a battery is or is not a lead-acid battery, as defined in
32 Section 25215.1. The ~~board~~ *California Department of Tax and*
33 *Fee Administration* shall forward to the department any petition
34 for redetermination that is based on those grounds.

35 (B) Accept or consider a claim for refund of fees paid pursuant
36 to this article, if the claim for refund is founded upon the grounds
37 that a battery is or is not a lead-acid battery, as defined in Section
38 25215.1. The ~~board~~ *California Department of Tax and Fee*
39 *Administration* shall forward to the department any claim for refund
40 that is based on these grounds.

(b) The following persons shall register with the ~~board~~:
California Department of Tax and Fee Administration:

(1) A dealer of lead-acid batteries.

(2) ~~(A) A manufacturer of lead-acid batteries.~~ *batteries, unless subparagraph (B) applies.*

(B) A person is not required to register with the California Department of Tax and Fee Administration as a manufacturer of lead-acid batteries if the person has an agreement or agreements pursuant to Section 25215.3 with a manufacturer or manufacturers of lead-acid batteries pursuant to which the manufacturer or manufacturers agree to pay the manufacturer battery fee on behalf of the person and the agreement or agreements apply to all lead-acid batteries sold by the person. A person exempt from registration pursuant to this subparagraph shall comply with any other applicable requirements that may be prescribed by the California Department of Tax and Fee Administration.

SEC. 7. Section 25215.48 is added to the Health and Safety Code, to read:

25215.48. Notwithstanding subdivision (b) of Section 55381 of the Revenue and Taxation Code, the California Department of Tax and Fee Administration may disclose the name, address, account number, and account status of a person registered with the California Department of Tax and Fee Administration to pay the manufacturer battery fee. Account status shall not include the amount of the manufacturer battery fee paid by any person.

SEC. 8. Section 25215.5 of the Health and Safety Code is amended to read:

25215.5. (a) Lead-acid battery fees collected pursuant to this article shall be managed as follows:

(1) The board shall retain moneys necessary for the payment of refunds and reimbursement of the board for expenses in the collection of the fees.

(2) The remaining moneys shall be deposited into the Lead-Acid Battery Cleanup Fund, which is hereby created in the State Treasury, and is available upon appropriation by the Legislature to the department for the purposes specified in this section.

(b) (1) Moneys in the Lead-Acid Battery Cleanup Fund shall be expended for the following activities:

(A) Investigation, site evaluation, cleanup, remedial action, removal, monitoring, or other response actions at any area of the

1 state that is reasonably suspected to have been contaminated by
2 the operation of a lead-acid battery recycling facility.

3 (B) Administration of the Lead-Acid Battery Cleanup Fund and
4 the department's administration and implementation of this article.

5 (C) Repayment of a loan described in Section 25215.59 that
6 was made before the effective date of the act which added this
7 section, or any other loan made for purposes set forth in
8 subparagraph (A). *Moneys shall be expended for purposes of this*
9 *subparagraph only after the activities specified in subparagraphs*
10 *(A) and (B) have been fully funded.*

11 (2) Moneys in the Lead-Acid Battery Cleanup Fund shall not
12 be used to implement Article 14 (commencing with Section 25251)
13 with respect to lead-acid batteries or to loan moneys to any other
14 program.

15 (c) The department shall report to the Legislature by February
16 1, 2018, and annually thereafter, on the status of the Lead-Acid
17 Battery Cleanup Fund and on the department's progress
18 implementing this article, including, but not limited to, the sites
19 at which actions were performed using moneys from the fund, the
20 status of cleanup at those sites, including total anticipated costs of
21 cleanup at those sites, the balance of the fund, the amount of fees
22 remitted to the fund, the amount spent by the fund and the purposes
23 for which those amounts were spent, the amounts reimbursed to
24 the board pursuant to paragraph (1) of subdivision (a), and any
25 other information requested by the Legislature.

26 SEC. 9. Section 25215.56 of the Health and Safety Code is
27 amended to read:

28 25215.56. (a) Any manufacturer battery fees ~~paid~~ remitted
29 pursuant to this article *shall, subject to subdivision (b) of Section*
30 *25215.3, be credited to the account of the manufacturer remitting*
31 *those fees to the California Department of Tax and Fee*
32 *Administration and shall be credited against amounts owed by the*
33 *manufacturer to the state pursuant to a judgment or determination*
34 *of liability under Chapter 6.8 (commencing with Section 25300)*
35 *or any other law for removal, remediation, or other response costs*
36 *relating to a release of a hazardous substance from a lead-acid*
37 *battery recycling facility. A manufacturer shall not seek more than*
38 *one credit for the same fee amount. This subdivision does not apply*
39 *to any manufacturer who is also an owner or operator of a lead-acid*
40 *battery recycling facility in California.*

1 (b) The amount paid by a manufacturer for a manufacturer
2 battery fee shall be considered to reduce the manufacturer's share
3 of liability in the allocation or apportionment of costs among
4 potentially responsible parties in a contribution action brought by
5 a private party related to a release of hazardous substances from
6 a lead-acid battery recycling facility. This subdivision does not
7 apply to any manufacturer who is also an owner or operator or a
8 former owner or operator of a lead-acid battery recycling facility
9 in California where a release occurred.

10 (c) This article does not create a private cause of action. Nothing
11 in this article shall be construed to affect, expand, alter, or limit
12 any requirements, duties, rights, or remedies under other law, or
13 limit the state or any other party from bringing any cause of action
14 that may exist under any law.

15 SEC. 10. This act is an urgency statute necessary for the
16 immediate preservation of the public peace, health, or safety within
17 the meaning of Article IV of the California Constitution and shall
18 go into immediate effect. The facts constituting the necessity are:

19 In order to increase the cleanup of toxic materials and to prevent
20 additional toxic pollution at the earliest possible time, it is
21 necessary that this act take effect immediately.

ATTACHMENT 6



South Coast

Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4182

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HOME RULE ADVISORY GROUP

Wednesday, November 14, 2018

MEETING MINUTES

CHAIR: Dr. Joseph Lyou, SCAQMD Governing Board Member

MEMBERS PRESENT:

Mike Carroll (Regulatory Flexibility Group); Curt Coleman (Southern California Air Quality Alliance); Nan Harrold (Orange County Waste & Recycling); Bill LaMarr (California Small Business Alliance); Dan McGivney (Southern California Gas); Art Montez (AMA International); Patty Senecal (Western States Petroleum Association); and TyRon Turner (Dakota Communications).

The following member participated by conference call: Rongsheng Luo (SCAG).

MEMBERS ABSENT:

Ben Benoit (SCAQMD Governing Board Member); Michael Downs (Downs Energy); Jaclyn Ferlita (Air Quality Consultants); Bridget McCann (Western States Petroleum Association); Dr. Clark Parker (SCAQMD Governing Board Member); David Rothbart (Los Angeles County Sanitation District); Larry Rubio (Riverside Transit Agency); Larry Smith (Cal Portland Cement); Kristen Torres Pawling (County of Los Angeles, Chief Sustainability Office); Bill Quinn (California Council for Environmental & Economic Balance) and Amy Zimpfer (EPA).

OTHER ATTENDEES:

Mark Abramowitz (Board Consultant to Dr. Lyou); Brian Clerico (CARB); Peter Herzog (NAIOP); and John Ungvarsky (EPA).

SCAQMD STAFF:

Philip Fine	Deputy Executive Officer
William Wong	Principal Deputy District Counsel
Jo Kay Ghosh	Health Effects Officer
Philip Crabbe	Community Relations Manager
Pedro Piqueras	Air Quality Specialist
Ann Scagliola	Administrative Secretary

OPENING COMMENTS AND SELF-INTRODUCTIONS

The meeting was called to order at 10:00 a.m. by Dr. Joseph Lyou (Chairman).

APPROVAL OF JULY 2018 MEETING MINUTES

Dr. Lyou asked for comments on the May 9, 2018 meeting minutes. Hearing none, the minutes were approved.

EPA AND FEDERAL ACTIVITIES

John Ungvarsky provided an update on recent U.S. Environmental Protection Agency (EPA) and federal activities.

SCAQMD Related Actions

- Proposed Approval of SCAQMD's AQMP for the 2006 24-hour PM2.5 NAAQS
- 2008 Ozone Plan Proposal Notice
- Finalized Approval of Rule 1113 – Architectural Coatings
- SCAQMD Diesel Emissions Reduction Act (DERA) Awards

Technology Advancement/Incentive Programs

- Targeted Air Shed Program

Federal Actions

- Cleaner Truck Initiative (CTI)
- 2015 Ozone SIP Requirement Update
- DERA National Clean Diesel Funding Assistance Program Updates

Discussion

This portion of the webcast recording was inaudible.

CARB REGULATORY ACTIVITIES

Brian Clerico provided CARB updates on proposed and recent regulatory activities.

Follow-up from September 2018 meeting

- Effects of the California wildfires emissions on attainment goals.

Proposed CARB Board and Regulatory Activities

- Statewide Portable Equipment Registration Program (PERP) and Portable Diesel Engine Air Toxic Control Measure (ATCM) - amendments to take place on November 30, 2018 (amendments summarized by James Aguilar)
- Aliso Canyon Mitigation Agreement - summary of public comments on CARB website.
- Overview of CARB workshops/webinars/meetings for remainder of 2018.

Discussion

Dr. Lyou commented that PM non-attainment events would normally happen in the winter when the PM levels are higher, and it could be an issue since the fire season might also include winter. Mr. Clerico indicated that this could possibly become a disqualification from being an exceptional event, since it may coincide with baseline ambient higher levels that are exceedances.

Bill La Marr inquired about SCAQMD's attainment goal and the wildfire impacts on the readings. Dr. Lyou indicated that there is a process you would claim that it is an exceptional event, and then it would go through the process with EPA for their verification. Dr. Fine added that you would then exclude the exceptional event data point, since it currently only impacts the 24-hour standard.

Dr. Lyou inquired if the PERP and ATCM updates were made to make enforcement easier or to address the lack of reporting. Mr. Aguilar indicated that it was a combination of both.

Bill La Marr inquired about a proposed regulation for reporting criteria of air pollutants and toxic air contaminants workshop scheduled for December 13, 2018, the same day/time as the CARB Board meeting. Mr. Clerico indicated that he would follow-up and provide an update.

LEGISLATIVE UPDATE

Philip Crabbe reported on key legislative updates.

The Legislative Committee held a meeting on November 9, 2018. SCAQMD's State legislative consultants provided written reports on State legislative activities in Sacramento. The meeting was primarily focused on interviewing consultant firms and recommending execution of contracts for SCAQMD's legislative representation in Washington, D.C. These firms are also SCAQMD's current federal legislative representatives in Washington, D.C. The Legislative Committee members interviewed representatives from the following firms:

- Carmen Group, Inc.;
- Cassidy & Associates, Inc.;
- Kadesh & Associates, Inc.; and
- The Glover Park Group

At the conclusion of the interviews, the Committee Members recommended that the Governing Board authorize the execution of contracts with the Carmen Group, Inc., Cassidy & Associates, Inc. and with Kadesh & Associates, Inc. for legislative representation in Washington, D.C.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS

William Wong had no updates to report.

UPDATE ON AB 617 IMPLEMENTATION

Dr. Phil Fine gave an update on the SCAQMD AB 617 year-one implementation efforts, which included the key elements for the selected communities and the benchmark milestones for future years.

Discussion

Art Montez inquired about how SCAQMD identified the factors for selecting AB 617 communities. Dr. Fine indicated that we engaged with the communities to identify factors to consider, and then identified the highest ranked communities based on those factors.

TyRon Turner inquired if there is a list of schools, in the South Los Angeles, near industrial areas or freeways. Dr. Fine indicated that a database of schools was used and the inter-active AB 617 maps, on the SCAQMD website, provides this level of detail.

Mr. Turner indicated that at his neighborhood council meetings citizens have raised concerns about the air quality, due to the recent Los Angeles Airport changes in flight patterns. He inquired if air monitors are purchased, will SCAQMD provide training on how to transmit the data. Dr. Fine indicated that the SCAQMD Air Quality Sensor Performance Evaluation Center (AQ Spec) Program does offer deployment and community training, and interested parties should contact the AQ Spec staff for upcoming programs. Dr. Fine added that it is anticipated that there will also be sensor deployment in the selected AB 617 communities. Dr. Lyou commented that the sensors cannot measure everything and suggested considering the PM Purple Air sensors, which have proven to be reliable and accurate for PM.

Mike Carroll commented that he recently toured the AQ Spec setup in the SCAQMD laboratory and recommended that others do the same.

Action Item: Dr. Lyou requested an AQ Spec tour for the Advisory Group, immediately following the January 9, 2019 meeting.

Dan McGivney asked if the AB 617 Community Steering Committee meetings have already occurred. Dr. Fine indicated that two of the three meetings have taken place.

Art Montez asked about the cost of the monitoring systems and if they are difficult to install. Dr. Lyou replied that low-cost sensors cost anywhere from a couple of hundred dollars up to five thousand, depending on what you want to monitor.

Nan Harrold inquired about the December 31, 2023 key milestone deadline for SCAQMD to implement Best Available Retrofit Control Technology (BARCT) and how it relates to the emissions inventory plan. Dr. Fine indicated the BARCT milestones are not necessarily community based but as part of the statute and it will apply to all facilities subject to these rules and will benefit communities throughout the basin. Ms. Harrold further inquired whether this statute applies to everyone in general or are there specific types of equipment. Dr. Fine replied that this specific legislation applies to facilities that are in the statewide greenhouse gas (GHG) cap-and-trade program as of January 1, 2017, as well as other requirements to implement BARCT by the 2023 deadline.

Jo Kay Ghosh indicated that the next AB 617 Community Steering Committee meeting is November 28, 2018, and we are still looking for residents of the Boyle Heights, East Los Angeles and West Commerce area to serve on this committee.

Rongsheng Luo inquired about the \$250M appropriated last year for implementation of AB 617, and how much of that will be allocated to the identified three communities. Dr. Fine indicated that in the first year \$250M was allocated statewide and SCAQMD received approximately \$107M. The legislation was very specific that it had to be spent on Carl Moyer or Prop 1B type programs. SCAQMD was over-subscribed for the Carl Moyer program, so we had many great projects to be funded. Since we did not have the communities selected at that time, SCAQMD made sure that almost 90 percent of the money was spent in disadvantaged communities. This year \$245M was dedicated statewide and SCAQMD does expect to get a portion of this. The guidelines are less restrictive and are open to stationary source incentives. Funding will be prioritized to benefit the selected communities. CARB continues to work on the guidelines for how the \$245M will be spent, and they are still taking comments and feedback for these guidelines. At this time, the money has not been divided up across the districts.

SUBCOMMITTEE STATUS REPORTS

A. Freight Sustainability (Dan McGivney)

An update was provided on the following items.

- December 4, 2018 - CARB workshops on light- and heavy-duty fleet requirements and the advanced clean truck regulation.
- December 4 & 5, 2018 – CARB workshop on the 3-year plan for light-duty vehicles.
- November 29, 2018 - California Freight Advisory Committee meeting

B. Small Business Considerations (Bill La Marr)

An update was provided on the following items.

- Consulted with the Metal Finishing Association and industry, until the adoption of Rule 1369.
- RECLAIM Working Group
- AB 617 Community Steering Committee meetings
- Met with the new EPA Regional Administrator and the Field Office Director of the Los Angeles office.

Bill La Marr requested that staff provide an announcement when rules are adopted to the regulated community, along with a brief summary of the rule content. Dr. Lyou indicated that it used to be standard practice for SCAQMD to provide a notification to the impacted facilities. Dr. Fine said that he would double-check to make sure that this does occur.

C. Environmental Justice and AB 617 Implementation (Curt Coleman)

An update was provided on the following item.

- October 25, 2018 - The CARB Board approved staff's proposed recommendations for the greenhouse gas spending investment priorities for 2018-2019.

D. Climate Change (David Rothbart)

No report was provided.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Phil Fine provided a summary of items on the October and November 2018 meeting agendas.

- PAR 1469, 1146, 1146.1, 1146.2, 1403, 1325;
- PR 1110, 1118.1, PR 1407.1;
- AB 617 BARCT Implementation Schedule
- RECLAIM Quarterly Report

The next Stationary Source Committee meeting has been scheduled for December 19, 2018.

APPROVAL OF THE 2019 HOME RULE ADVISORY SCHEDULE

The Home Rule Advisory Group confirmed and Dr. Lyou approved the following meeting schedule for 2019.

January 9	May 8	September 11
March 13	July 10	November 13

Note: All meetings are scheduled to begin at 10:00 a.m. and will be held in Conference Room CC-8.

2018 ACCOMPLISHMENTS AND 2019 GOALS & OBJECTIVES

Dr. Lyou asked for comments the provided Home Rule Advisory Group 2018 Accomplishments and the 2019 Goals and Objectives. Hearing none, the reports were approved.

OTHER BUSINESS

Art Montez inquired about internships available at SCAQMD. Dr. Lyou requested that Mr. Montez be provided with the Summer Governing Board Internship Program link.

Mike Carroll indicated that Latham Watkins has work with the environmental group Ocean Cleanup and to develop a program to remove plastics from the ocean. An award was received for this outstanding project and Mr. Carroll wanted to share the video with others. The link is

<https://www.lw.com:443/news/The-Ocean-Cleanup-2018-Dell-Prize>

PUBLIC COMMENT

There were no comments.

ADJOURNMENT

The meeting was adjourned at 11:44 a.m. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on January 9, 2019, and will be held at SCAQMD in Conference Room CC-8.

 [Back to Agenda](#)

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 24B

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Thursday, January 10, 2019. The following is a summary of the meeting.
(Revised following the February 1, 2019 Board Meeting)

RECOMMENDED ACTION:
Receive and file.

Judith Mitchell, Chair
Legislative Committee

DJA:PFC:LTO:jns

Committee Members

Present: Dr. William A. Burke (videoconference)
Dr. Clark E. Parker, Sr. (videoconference)
Mayor Judith Mitchell/Chair (videoconference)

Absent: Council Member Joe Buscaino/Vice Chair
Supervisor V. Manuel Perez
Supervisor Janice Rutherford

Call to Order

Chair Mitchell called the meeting to order at 9:07 a.m.

DISCUSSION ITEMS:

1. Update on Federal Legislative Issues

SCAQMD's federal legislative consultants (Kadesh & Associates, Carmen Group, and Cassidy & Associates) each provided a written report on various key Washington, D.C. issues.

Mr. Chris Kierig of Kadesh & Associates reported that the federal government had been in partial shutdown for 20 days. The Senate is scheduled to have a final vote on Thursday, January 10, 2019, in the afternoon, then adjourn through the weekend which sent a signal that reaching an agreement to the budget impasse was not in sight.

Mr. Kierig also reported that Representative Nanette Barragán was appointed to the House Energy and Commerce Committee and Representative Norma Torres was appointed to the House Appropriations Committee.

Mayor Mitchell asked Mr. Kierig if he had heard about any efforts by the Administration to stop emergency funding for wildfire issues in California. Mr. Kierig replied that he had not heard of any discussion.

Mr. Gary Hoitsma of the Carmen Group, reported that the President had officially nominated Mr. Andrew Wheeler as the permanent U.S. EPA Administrator. The Senate Environment and Public Works Committee has scheduled the hearing for the nomination of Mr. Wheeler on January 16, 2019.

Mr. Kaleb Froehlich of Cassidy & Associates reported that the Senate approved Ms. Mary Neumayr's nomination as Chairwoman of the Council on Environmental Quality which coordinates environmental policy and regulations across the federal agencies.

2. Update on State Legislative Issues

SCAQMD's state legislative consultants (Joe A. Gonsalves & Son, Quintana, Watts and Hartman, and California Advisors, LLC) each provided written reports on various key issues in Sacramento.

Mr. Paul Gonsalves of Joe A. Gonsalves & Sons reported that Governor Newsom, along with all other statewide constitutional officers, were sworn in on January 7, 2019. Governor Newsom gave an inaugural speech and will be releasing his proposed state budget on January 10, 2019 which will address California's \$15 billion budget surplus. Mr. Gonsalves informed the Committee that this proposed state budget will essentially begin budget negotiations between the Governor and the Legislature. There will a revised budget released by the Governor in May and June 15, 2019 is the deadline for the state budget to be passed.

Ms. Caity Maple of Quintana, Watts and Hartman reported that Jared Blumenfeld has been appointed by Governor Newsom as the new Secretary of the Cal/EPA.

Mr. Will Gonzalez of California Advisors, LLC, reported that SCAQMD staff and representatives have been having ongoing meetings in Sacramento regarding the sales tax ballot measure authorization bill sponsored by SCAQMD. Mr. Gonzalez introduced Ross Buckley the new state legislative consultant that will be working on SCAQMD's issues. Mr. Buckley informed the Committee that Assembly Member Kevin McCarty is looking to introduce a bill relating to establishing a uniform process for shutting down schools when there is very unhealthy air quality, such as in situations when there is severe smoke from wildfires. Further updates will be provided as this legislation develops.

3. Update on Proposed Legislation Regarding a Sales Tax Increase Authorization Ballot Measure for Air Quality Funding

Mr. Philip Crabbe, Public Affairs Manager of Legislative, Public Affairs and Media, presented this item to the Committee and provided an update on an SCAQMD-sponsored proposed legislation, which would authorize a sales tax measure be put on the ballot within the South Coast region. The sales tax would fully fund implementation of the AQMP through incentives to ensure meeting air quality standards and protecting public health.

Mr. Crabbe clarified that the bill does not create a tax or ballot measure directly, but allows Board action or a voter-driven initiative to put a sales tax measure on the ballot. Staff has finalized draft bill language, which was included as an attachment in the January 10, 2019 Legislative Committee meeting packet, for the Committee's information and discussion.

Mr. Crabbe summarized some of the provisions of the bill language, including that the proposed bill:

- Allows a sales tax measure to be voted upon within the South Coast region and establishes procedures regarding the applicable election processes;
- Clarifies that funds raised through a sales tax ballot measure shall be used for financial incentives and programs to accelerate the deployment of lower-emission mobile and stationary equipment, along with alternative fueling and charging infrastructure, as necessary, to implement the SCAQMD's 2016 AQMP, and subsequent SCAQMD-adopted plans, in order to attain the state and national ambient air quality standards;
- Authorizes a sales tax increase by ballot measure of up to one percent within the South Coast;
- Ensures that at least 50 percent of funds raised by this measure shall be used for financial incentives awarded to projects located in, and/or benefiting disadvantaged communities;
- Ensures that, in distributing the financial incentives, the SCAQMD shall give preference for any project using equipment that is manufactured or assembled within the South Coast region;
- Prohibits funds raised by the measure from being allocated for the purchase of fully automated cargo handling equipment; and
- Requires legislative oversight through annual reporting by the SCAQMD to the Legislature regarding projects funded and the expected emission reductions from those projects.

Mayor Mitchell inquired if the definition of “disadvantaged communities” in the bill language was related to the CalEnviroScreen tool. Mr. Crabbe responded that the bill referenced a state statute that defined “disadvantaged communities” and that staff would confirm whether or not this involved CalEnviroScreen.

Dr. Parker asked if the bill language is consistent with Board direction regarding introducing a sales tax ballot measure authorization bill. Ms. Barbara Baird, Chief Deputy Counsel, responded that the bill language is consistent with Board direction.

Mr. Aaron Hake from the Riverside County Transportation Commission (RCTC) commented that RCTC has established a 2019 legislative platform that is relevant to SCAQMD’s sponsored sales tax ballot measure authorization bill, and that RCTC has specific concerns that would need to be addressed for them to support this effort, including requiring a two-thirds vote, equal distribution of benefits by county, a formal consultation process and the legislation should not affect RCTC’s ability to get more funding. RCTC is interested in working with SCAQMD, collaborating with SCAQMD in the near future to ensure that the bill is consistent with RCTC’s legislative platform priorities.

Mayor Mitchell commented that staff should continue to work with the counties in the South Coast region regarding the sales tax ballot measure bill.

OTHER MATTERS:

4. Other Business

There was no other business.

5. Public Comment Period

There were no public comments.

6. Next Meeting Date

The next regular Legislative Committee meeting is scheduled for Friday, February 8, 2019 at 9:00 a.m.

Adjournment

The meeting adjourned at 9:38 a.m.

Attachments

1. Attendance Record
2. Update on Federal Legislative Issues – Written Reports
3. Update on State Legislative Issues – Written Reports
4. Update on Proposed Legislation Regarding a Sales Tax Increase Authorization Ballot Measure for Air Quality Funding

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT LEGISLATIVE COMMITTEE MEETING ATTENDANCE RECORD – January 10, 2019

Dr. William A. Burke (videoconference).....	SCAQMD Board Member
Mayor Judith Mitchell (videoconference).....	SCAQMD Board Member
Dr. Clark E. Parker, Sr. (videoconference)	SCAQMD Board Member
Mark Abramowitz.....	Board Consultant (Lyou)
Gary Hoitsma (teleconference)	Carmen Group, Inc.
Kaleb Froehlich (teleconference).....	Cassidy & Associates
Chris Kierig (teleconference).....	Kadesh & Associates
Caity Maple (teleconference).....	The Quintana Cruz Company
Will Gonzalez (teleconference)	California Advisors, LLC
Paul Gonsalves (teleconference).....	Joe A. Gonsalves & Son
Alicia Berhow	Orange County Business Council
Kris Flaig	LA Sanitation
Aaron Hake	Riverside County Transportation Commission
Bill LaMarr	California Small Business Alliance
Michael Lewis.....	Construction Industry Air Quality Coalition
Rita Loof	RadTech
Tammy Yamasaki	Southern California Edison
Derrick Alatorre	SCAQMD Staff
Sam Atwood.....	SCAQMD Staff
Barbara Baird (teleconference)	SCAQMD Staff
Naveen Berry	SCAQMD Staff
Philip Crabbe	SCAQMD Staff
Stacy Garcia	SCAQMD Staff
Bayron Gilchrist.....	SCAQMD Staff
Monika Kim.....	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Ron Moskowitz.....	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Robert Paud.....	SCAQMD Staff
Mary Reichert	SCAQMD Staff
Jeanette Short.....	SCAQMD Staff
Danielle Soto.....	SCAQMD Staff
Lisa Tanaka O'Malley	SCAQMD Staff
Laki Tisopulos	SCAQMD Staff
Jill Whynot.....	SCAQMD Staff
Paul Wright.....	SCAQMD Staff

ATTACHMENT 2

SCAQMD Report for January 2019 Legislative Meeting covering December 2018

Kadesh & Associates

Overview

As has been widely reported, Congress and the White House failed to agree on legislation to fund the balance of the Fiscal Year (FY) 2019 Appropriations bills or on an additional Continuing Resolution to fund the government. As a result, a partial government shutdown has been in effect since midnight of December 21. Recall, Congress has not passed seven of the annual appropriations bills: *Agriculture, Commerce-Justice, Financial Services, Foreign Operations, Homeland Security, Interior, and Transportation-HUD*. The issue is funding for the President's proposed border wall and neither side appears anxious to resolve the issue.

Incoming Speaker Pelosi (pending her election to that post) has announced the House will take up on January 3 - the first day of the new session - and pass a six-bill omnibus which would also include a Continuing Resolution (CR) until February 8 for the Department of Homeland Security. It is unclear if this bill would pass in the Senate. Until this issue is resolved, most government workers are furloughed or working without pay.

Major action in December

Leadership selections/elections for Congressional Committees and the funding (ultimately shutdown) of the federal government dominated December. Nancy Pelosi appears to be on her way to serve as Speaker for a second time with a formal floor vote to occur January 3, 2019. It also appears that several Members of the California delegation will assume full committee and subcommittee posts in addition to what spots the seven new members of the California delegation will be assigned. Five of the seven new Democratic Members have all or part of their Congressional districts within SCAQMD's area of responsibility. Announcements of Chairs and Ranking Minority Members of House Appropriations Subcommittee will not occur until mid-January.

116th Congress House Committee Leaders

(**Bold** indicates new leadership role for that Member; **Bold/Underline** indicates CA Democrat.)

Committee	Chairman	Ranking Republican
Agriculture	Collin Peterson (Minn.)	Mike Conaway (Texas)
Appropriations	Nita Lowey (N.Y.)	Kay Granger (Texas)
Armed Services	Adam Smith (Wash.)	Mac Thornberry (Texas)
Budget	John Yarmuth (Ky.)	Steve Womack (Ark.)
Climate Crisis	Kathy Castor (Fla.)	
Education and Labor	Bobby Scott (Va.)	Virginia Foxx (N.C.)
Energy and Commerce	Frank Pallone (N.J.)	Greg Walden (Ore.)
Ethics	Kenny Marchant (Texas)	
Financial Services	Maxine Waters (Calif.)	Patrick McHenry (N.C.)
Foreign Affairs	Eliot Engel (N.Y.)	Mike McCaul (Texas)
Homeland Security	Bennie Thompson (Miss.)	Mike Rogers (Ala.)
House Administration	Zoe Lofgren (Calif.)	Rodney Davis (Ill.)
Intelligence	Adam Schiff (Calif.)	Devin Nunes (Calif.)
Judiciary	Jerrold Nadler (N.Y.)	Doug Collins (Ga.)
Natural Resources	Raúl Grijalva (Ariz.)	Rob Bishop (Utah)
Oversight and Government Reform	Elijah Cummings (Md.)	Jim Jordan (Ohio)
Rules	Jim McGovern (Mass.)	Tom Cole (Okla.)
Science, Space & Technology	Eddie Bernice Johnson (Texas)	Frank Lucas (Okla.)
Small Business	Nydia Velázquez (N.Y.)	Steve Chabot (Ohio)
Transportation & Infrastructure	Peter DeFazio (Ore.)	Sam Graves (Mo.)
Veterans' Affairs	Mark Takano (Calif.)	Phil Roe (Tenn.)
Ways and Means	Richard Neal (Mass.)	Kevin Brady (Texas)

Funding the Federal Government

Congress returned to Washington for a lame duck session to pass the remaining FY19 Appropriations bills and averting a government shutdown. The remaining appropriations bills are: *Agriculture, CJS, Financial Services, Homeland Security, Interior, Foreign Operations, and Transportation/Housing (THUD)*. Funding for the border wall quickly became the single largest sticking point. The FY19 budget request sought \$1.6 billion for new fencing in the Rio Grande Valley. The Senate DHS bill provides that amount. The President, however, is insisting on \$5 billion as a down payment for new construction. The House voted in favor (largely along party lines) for the President's request on December 20. The U.S. House passed a stopgap funding bill that included \$5 billion for a wall on the border with Mexico after President Trump said he wouldn't sign a bill that didn't have the extra money, setting up a conflict with the Senate. The House vote on the amended House version of H.R. 695 was 217-185. Ultimately the 25% of the federal government (as measured by Appropriations spending) began shutting down after December 21, 2018.

Effects

Rulemaking Goes Dark During Shutdown Over Spending Standoff: The partial government shutdown over spending for agencies covering homeland security, environmental protection, and other programs is also depriving the public of new information about behind-the-scenes rulemaking at departments that have funding. Nine major departments and agencies—and the office that reviews all federal regulations—have been shut down since December 22, 2018, with some exceptions for employees who conduct critical tasks. Work on non-emergency regulations has stopped in departments and agencies without funding, such as the Environmental Protection Agency (EPA).

Museums, EPA to Close: More lights are going out in U.S. government offices with the shutdown in its second week as entities from the EPA to the Smithsonian Institution run out of money. Nearly 14,000 workers at the EPA were furloughed, while the Smithsonian said that all museums, research centers and the National Zoo will close, unless the shutdown ends.

How to End the Shutdown

There are three basic ways the shutdown could end: Trump gives up the \$5 billion he wants for the wall, Democrats give Trump his wall money, or both sides come up with a face-saving deal. There are many options for that type of deal. Pelosi says her new Democratic majority will pass legislation to fund the shuttered federal agencies soon after she gets the gavel. Senate Republicans say they won't vote on any spending bill that Trump opposes.

Looking Forward- Lawmakers Prepare for 116th Congress

The House convenes at noon on January 3, 2019, to begin the 116th Congress, and Democrats are preparing to hold the majority in the chamber for the first time since the 111th Congress. Rep. Kathy Castor (D-Fla.) has been tapped by Leader Pelosi to head a select House committee focusing on climate change. Castor is a member of the House Energy and Commerce Committee, which is likely to retain primary jurisdiction in moving any climate legislation in the House in 2019. The new climate panel, to be called the House Select Committee on the Climate Crisis, resurrects a select committee Pelosi launched in 2006, which Republicans abolished when they took control of the House in 2011.

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MEMORANDUM

To: South Coast AQMD Legislative Committee

From: Carmen Group

Date: January 2, 2019

Re: Federal Update -- Executive Branch

Government Shutdown Hits EPA Among Other Agencies: The dispute between Congressional Republicans and Democrats over President Trump's request for \$5 billion in border wall funding led to a partial federal government shutdown on Dec. 21 affecting nine departments (Agriculture, Commerce, Justice, Homeland, Housing, Interior, State, Transportation, and Treasury) and some smaller agencies including the Environmental Protection Agency (EPA). In all, about 800,000 federal employees -- 25 percent of the federal workforce -- were affected through direct furloughs or requirements to work without pay. The remaining 75 percent of federal workers were not affected since Congress previously approved appropriations for their agencies. At the EPA, Acting Administrator Andrew Wheeler indicated his agency would proceed with orderly shutdown plans calling for 700 "essential" workers to stay on the job without pay, while 13,000 remaining employees would be furloughed. On Dec. 20, the Republican controlled House approved appropriations for all the affected agencies while also including the President's request for border wall funding. But the Senate adjourned the following day without taking up the bill since it did not have the 60 votes needed to pass. The impasse will likely intensify when the incoming Democratic-controlled House approves separate bills to open these agencies but without the border funding Trump wants. Negotiations between the two sides in Congress and the President will be needed to resolve the matter.

Infrastructure Rumbings: Despite the shutdown dispute, the President continues to say he wants to work with Democrats to pass on a major infrastructure bill in the new Congress. In December, top Republican and Democratic staff of the incoming House Transportation & Infrastructure Committee briefed a group of transportation lobbyists on some of the significant infrastructure challenges facing Congress and the Administration, holding out a measure of optimism that there could be a path for success provided that the Administration takes the lead on funding and that serious negotiations could be engaged within the first six months on 2019 -- tall orders for sure. The staffers noted that Committee hearings would begin early in the year focused largely on surface transportation issues and the need to bring solvency to the Highway Trust Fund, which faces a serious \$160 billion deficit hole in just two years if nothing is done. Committee staffers also said the issue of possibly restoring a process to allow Congressional earmarked funding would be discussed in the new Congress, where there is both considerable support and entrenched opposition.

DOT Announces BUILD Grants: In December, the US Department of Transportation announced its latest round BUILD grant awards (formerly TIGER grants). In all, 91 projects in 49 states received transportation grants totaling \$1.5 billion. Of these, 62 projects (59%) went to rural (as opposed to urban) areas. By prioritizing rural projects, DOT said it was re-balancing a ten-year historical underinvestment in rural communities. The grants were also touted as having contributed to the construction or refurbishment of over 200 bridges nationwide, and also addressed port infrastructure improvements in such states as Texas, Louisiana, Virginia and Maryland. Under the BUILD discretionary program, the maximum grant award is \$25 million, and the minimum is \$5 million in urban areas and \$1 million in rural areas.

DOT Announces Funding Available for New INFRA Grants: In December, the US Department of Transportation announced the expected availability of at least \$855 million for the next round of INFRA grants (formerly FASTLANE grants). These are grants for significant transportation projects addressing freight infrastructure that leverage federal funds and incentivize innovative strategies including public private partnerships. Large projects qualify for minimum grants of \$25 million, while small projects can receive minimum grants of \$5 million. Eligible INFRA project costs may include: reconstruction, rehabilitation, acquisition of property, environmental mitigation, construction contingencies, equipment acquisition and operational improvements directly related to system performance. In 2018, INFRA grants of nearly \$1.5 billion were awarded to 26 projects. Applications for grants in 2019 – subject to pending appropriations – are due on March 4, 2019.

White House Opportunity and Revitalization Council Established: In December, the President acted by executive order to form the “White House Opportunity and Revitalization Council” to coordinate federal activity, investments and programs to address needs in urban and economically distressed communities. The Council will be led by the Secretary of Housing & Urban Development and the Assistant to the President for Domestic Policy, with members from 15 agencies including the Environmental Protection Agency (EPA) and the White House Council on Environmental Quality (CEQ). The council will evaluate how agencies can prioritize support for urban and economically distressed areas, in their grants, financing and other assistance.

EPA Releases Proposal to Revise MATS Supplemental Cost Finding: The Environmental Protection Agency in December issued a revised Supplemental Cost Finding for the Mercury and Air Toxics Standards (MATS) as well as Clean Air Act-required “risk and technology review.” This action proposes to correct flaws in the Supplemental Finding and proposes to make a revised determination that it is not appropriate and necessary to regulate hazardous air pollutant emissions from coal- and oil-fired power plants. The Agency is arguing that a proper consideration of costs under Section 112 of the Clean Air Act would demonstrate that the costs of compliance with the MATS rule (up to \$9.6 billion annually) dwarfs the monetized benefits of the rule (up to only \$6 million annually.) EPA will take comment on the proposal for 60 days and will hold a public hearing on the issue.

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To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: December 28, 2018

Re: Federal Update

Issues of Interest to SCAQMD

Government Shutdown Update:

Nine Federal Departments and Agencies including the EPA, DOI, FDA and IRS have been shutdown for nearly one week so far, with no discernable end to the shutdown imminent. Both the House and Senate have adjourned until next week for legislative business, ensuring that the partial government shutdown drags on for at least 12 days. Sources continue to say that there have been no breakthroughs in negotiating a way to fund the nine federal departments that are without funding.

Many believe that the impasse cannot be resolved until January 3, when House Minority Leader Nancy Pelosi official assumes the role of speaker under a new Democratic majority. Until then, there is only a small chance that Senate Minority Leader Schumer can agree to a deal with the President, but negotiations are not occurring at this time.

Once Minority Leader Pelosi is sworn in, it is likely the Democrats will immediately work to pass a funding bill to put pressure on the Senate and Senate Majority Leader McConnell to follow suit. What remains to be finalized is the length of the proposed funding bill that will be introduced by House Democrats.

EPA Shutdown Update:

Unlike many of the other agencies, the EPA has remained open through the partial government shutdown so far by using leftover funding, but that funding is expected to run out by Friday, December 28, at which time the agency will begin orderly shutdown procedures.

House Democratic Committee Assignments Update

The House Steering and Policy Committee will continue work through January to assign Democrats to their respective committee postings. Of particular interest to SCAQMD, it is anticipated that assignments to the House Energy and Commerce Committee and the House Ways and Means Committee will be made in the first half of the month of January.

Select Committee on the Climate Crisis

Representative Kathy Castor (Florida) will chair a new select committee entitled the Select Committee on the Climate Crisis in the 116th Congress. In the 115th Congress, Castor was the Vice Ranking Member on the Energy and Commerce Committee which holds jurisdiction over matters relating to air quality in the House of Representatives. While Castor's leadership of the new select committee will help inform and move the debate on a variety matters related to clean air and environmental justice, the Committee is not expected to hold any formal legislative authority. Castor's endorsement of policy proposals though should carry additional weight given her role on the new select committee on the Climate Crisis.

Senate ENR Committee Democratic Update:

The Senate Energy and Natural Resources Committee will have two fewer Democrats on it next year according to Senate Minority Leader Chuck Schumer. Senators Tina Smith of Minnesota and Tammy Duckworth of Illinois will no longer serve on the energy panel and are not being replaced.

Senator Joe Manchin of West Virginia will take over as the ENR ranking Democrat. Senator Manchin's ascension to the Ranking Member position has caused a great deal of angst amongst environmental and liberal groups as he is a centrist and a pro-coal democrat, who many fear will cut unfavorable deals with the Committee Republicans.

Senator Manchin is also unlikely to move forward with any bold climate change legislation but has also signaled that he is willing to work on climate in recent statements. It will be very important for SCAQMD to meet with Senator Manchin and his staff in the near term as he begins his new tenure.

EPA Carbon Limits for Coal Plants Update:

The EPA is proposing to ease carbon dioxide limits placed on newly built coal-fired power plants, according to a coal industry source. The proposal revokes the Obama Administration's requirement that any new coal plant build in the U.S. utilize carbon capture and storage technology to meet stringent emissions requirements. That rule was known as the New Source Performance Standard and it was issued in 2016 alongside the Clean Power Plan, which the Trump administration is retooling significantly.

The EPA announcement was made alongside National Black Chamber of Commerce President and CEO Harry Alford. The group has argued that this rule and other Obama-era regulations raise electricity prices and disproportionately hurt minority communities.

EPA Review Glider Repeal:

EPA's inspector general will probe allegations by Senate Democrats that the agency underestimated the economic impacts of its proposed repeal of the emissions rule for glider trucks in order to avoid triggering additional regulatory requirements. Senators Tom Carper (D-Del.) and Tom Udall (D-N.M.) in October alleged that former Administrator Scott Pruitt and EPA skirted those orders. During interagency review, the proposal's economic impacts were dropped below the \$100 million threshold that would require the more detailed studies, they said, citing internal documents released by EPA.

Although the OIG stays out of policy fights, it can investigate whether the agency complied with executive orders when writing the repeal.

The OIG's memo makes no mention of other issues raised by the Democrats, including their complaints about EPA's use of an industry-funded study and Pruitt's decision to let glider manufacturers ignore a strict production cap. Acting Administrator Andrew Wheeler reversed that decision on the production cap following environmentalist lawsuits. The OIG is separately reviewing EPA's internal 2017 study of glider emissions following complaints from House Republicans.

ATTACHMENT 3



Joe A. Gonsalves & Son

Anthony D. Gonsalves

Jason A. Gonsalves

Paul A. Gonsalves

PROFESSIONAL LEGISLATIVE REPRESENTATION

925 L ST. • SUITE 250 • SACRAMENTO, CA 95814-3766

916 441-0597 • FAX 916 441-5061

Email: gonsalves@gonsalvi.com

TO: South Coast Air Quality Management District

FROM: Anthony, Jason & Paul Gonsalves

SUBJECT: Legislative Update – December 2018

DATE: Wednesday, January 2, 2019

On December 3, 2018, the Legislature convened an organizational, ceremonial swearing-in session to kick-off the 2019-2020 legislative session. The November 8 elections made serious changes to the California Legislature. The Legislature once again has a supermajority in both houses; The Assembly has 60 Democrats and 20 Republicans and the Senate has 29 Democrats and 11 Republicans.

January 7, 2019 marks the first day of session for the 2019-2020 legislative session. Additionally, Governor elect Gavin Newsome will be sworn-in on January 7, 2019 as the State's next Governor.

CAP-AND-TRADE

On December 13, 2018, the California Air Resources Board (CARB) amended the state's cap-and-trade program to streamline implementation and contain costs through 2030. The amendments set a ceiling on escalation of the price per ton for California companies in the program. This ceiling is designed to ensure the program continues to drive down greenhouse gases emissions while providing certainty about future costs.

In addition to a price ceiling on allowances, the amendments also ensure that California businesses stay competitive against out-of-state companies that do not have cap-and-trade obligations. The changes also implement statutory requirements to reduce the number of carbon offsets allowed after 2020.

The price ceiling prevents the price per ton for carbon emissions in California from rising without limit, especially as the cap on total emissions declines over time. This price control mechanism also includes separate reserves of allowances that will be made available beginning in 2021 at the reserve tiers. These reserve tiers are designed to prevent carbon allowance prices from rising too rapidly.

ALL ELECTRIC BUS FLEETS

On December 14, 2018, CARB approved a first-of-its-kind regulation that sets a statewide goal for public transit agencies to transition to 100% zero-emission bus fleets by 2040.

The Innovative Clean Transit regulation is part of a statewide effort to reduce emissions from the transportation sector, which accounts for 40% of climate-changing gas emissions and 80-90% of smog-forming pollutants. The transition to zero-emission technologies is essential to meeting California's air quality and climate goals.

Full implementation of the regulation is expected to reduce greenhouse gas emissions by 19 million metric tons from 2020 to 2050, which is equivalent to taking 4 million cars off the road. Further, it will reduce harmful tailpipe emissions (nitrogen oxides and particulate matter) by about 7,000 tons and 40 tons respectively during that same 30-year period.

Deployment of zero-emission buses is expected to accelerate rapidly in the coming years – from 153 buses today to 1,000 by 2020, based on the number of buses on order or that are otherwise planned for purchase by transit agencies. Altogether, public transit agencies operate about 12,000 buses statewide. To successfully transition to an all zero-emission bus fleet by 2040, each transit agency will submit a rollout plan under the regulation demonstrating how it plans to purchase clean buses, build out necessary infrastructure and train the required workforce. The rollout plans are due in 2020 for large transit agencies and in 2023 for small agencies.

Agencies will then follow a phased schedule from 2023 until 2029, by which date 100% of annual new bus purchases will be zero-emission. To encourage early action, the zero-emission purchase requirement would not start until 2025 if a minimum number of zero-emission bus purchases are made by the end of 2021.

2019 LEGISLATIVE CALENDAR

- Jan. 1 Statutes take effect
- Jan. 7 Legislature reconvenes
- Jan. 10 Budget must be submitted by Governor
- Jan. 21 Martin Luther King, Jr. Day.
- Jan. 25 Last day to submit bill requests to the Office of Legislative Counsel.
- Feb. 22 Last day for bills to be introduced
- Apr. 11 Spring Recess begins upon adjournment
- Apr. 22 Legislature reconvenes from Spring Recess
- Apr. 26 Last day for policy committees to meet and report to fiscal committees
fiscal bills introduced in their house
- May 3 Last day for policy committees to meet and report to the floor non-fiscal
bills introduced in their house
- May 10 Last day for policy committees to meet prior to June 3
- May 17 Last day for fiscal committees to meet and report to the floor bills
introduced in their house. Last day for fiscal committees to meet prior to June 3

- May 28-31 Floor session only. No committee may meet for any purpose except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees
- May 31 Last day for each house to pass bills introduced in that house
- June 3 Committee meetings may resume
- June 15 Budget Bill must be passed by midnight
- July 10 Last day for policy committees to hear and report fiscal bills to fiscal committees
- July 12 Last day for policy committees to meet and report bills. Summer Recess begins upon adjournment
- Aug. 12 Legislature reconvenes from Summer Recess
- Aug. 30 Last day for fiscal committees to meet and report bills
- Sept. 3-13 Floor session only. No committees may meet for any purpose, except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees
- Sept. 6 Last day to amend bills on the floor
- Sept. 13 Last day for any bill to be passed. Interim Recess begins upon adjournment



THE
QUINTANA
CRUZ
COMPANY

January 1st, 2019

TO: South Coast Air Quality Management District

FROM: The Quintana Cruz Company

RE: December 2018 Report

GENERAL UPDATE:

- The Legislature is out of session
- **January 7th** the Legislature reconvenes

ADMINISTRATION ITEMS OF NOTE:

- Gavin Newsom has hired the following key staff:
 - Ann O'Leary (Chief of Staff)
 - Ana Matosantos (Cabinet Secretary)
 - Jason Elliott (Chief Deputy Cabinet Secretary)
 - Priscilla Cheng (Director of External Affairs)
 - Daniel Zingale (Senior Advisor, Strategic Communications)
 - Nathan Click (Spokesman & Director of Public Affairs)
 - Angie Wei (Chief Deputy Cabinet Secretary, Policy Development)
 - Maricela Rodriguez (Director, Civic Engagement & Strategic Partnerships)
 - John Masterson (Constituent Affairs Assistant)



CALIFORNIA ADVISORS, LLC

SCAQMD Report
California Advisors, LLC
January 2, 2019 Legislative Committee Hearing

General Update

As we begin the new year we are monitoring how the Governor-elect Newsom will staff dozens of key administration position. We are also actively awaiting the introductions of hundreds of new bills that will signal the legislative priorities for the new year.

Regarding Governor Newsom, he has yet to name any advisors in the environmental sector. However, he has named his first five staff. Ann O'Leary will serve as Chief of Staff and Ana Matosantos as Cabinet Secretary. Under Ana will be Angie Wei as Chief Deputy Cabinet Secretary for policy development (formerly from CA Labor Federation) and Jason Elliot as Chief Deputy Cabinet Secretary for executive branch operations (former COS to SF Mayor Ed Lee). Finally, Newsom has appointed Anthony Williams as head of all legislation. Anthony formerly was Legislative Director for then Pro Tem Steinberg before running government affairs for Boeing. With Newsom being sworn in as Governor on January 7 and releasing his initial proposed budget on January 10, a flurry of new appointments is expected soon.

Committee Membership Changes

Legislative leadership recently announced new committee Chairs and memberships. Many committees have grown substantially in size and others are now even number memberships.

On the Assembly list, a few key takeaways are that Laura Friedman (D-Glendale) is now chair of Natural Resources, which will hear all air quality related bills. Assemblyman Richard Bloom (D-Santa Monica) will remain chair of Budget Sub 3, which handles all air quality and resource issues. AQMD's sales tax authority bill will likely be heard in Assembly Local Government Committee and/or the Assembly Elections and Redistricting Committee. Those committees will be chaired by Asm. Marc Berman (D-Palo Alto) and Asm. Cecilia Aguiar-Curry (D-Winters), respectively.

On the Senate side, Sen. Ben Allen (D-Santa Monica) is now Chair of Senate Environmental Quality Committee, which hears all bills related to air quality. AQMD's sales tax authority bill will likely be heard in Senate Governance and Finance Committee and/or the Senate Elections and Constitutional Amendments Committee.

Those committees will be chaired by Sen. Mike McGuire (D-Healdsburg) and Sen. Tom Umberg (D-Santa Ana), respectively. Below is a list of key Senate committee chairs:

SENATE:

Appropriations: Sen. Anthony Portantino, Chair; Sen. Patricia Bates, Vice Chair

Budget and Fiscal Review: Sen. Holly Mitchell, Chair; Sen. Jim Nielsen, Vice Chair

Elections and Constitutional Amendments: Sen. Thomas Umberg, Chair; Sen. Jim Nielsen, Vice Chair.

Energy, Utilities and Communications: Sen. Ben Hueso, Chair; Sen. John Moorlach, Vice Chair.

Environmental Quality: Sen. Ben Allen, Chair; Sen. Patricia Bates, Vice Chair.

Governance and Finance: Sen. Mike McGuire, Chair; Sen. John Moorlach, Vice Chair.

Governmental Organization: Sen. Bill Dodd, Chair; Sen. Scott Wilk, Vice Chair.

Natural Resources and Water: Sen. Henry Stern, Chair; Sen. Brian Jones, Vice Chair.

Rules: Pro Tem Toni Atkins, Chair; Sen. Scott Wilk, Vice Chair.

Transportation (new committee): Sen. Jim Beall, Chair; Sen. Shannon Grove, Vice Chair.

Budget Subcommittee #2 on Resources, Environmental Protection, Energy and Transportation: Sen. Bob Wieckowski, Chair

2019 Legislative Priorities

Sales Tax Ballot Initiative Authorization

California Advisors continues preparation for the introduction of AQMD's priority legislation in 2019 related to sales tax authority. We have facilitated dozens of meetings with legislators and their staff as well as interest groups that may be supportive of our efforts. These meetings thus far have been very positive and we will continue to facilitate these conversations in the new year as we prepare to introduce the legislation by the February 22nd deadline.

ATTACHMENT 4

Assembly/Senate Bill No. _____ [DRAFT]

An act to amend Section 40424.5, and to add Sections 40424.7, 40490, 40495 to the Health and Safety Code; and to add Article 9 (commencing with Section 40550) to Chapter 5.5 of Part 3 of Division 26 of the Health and Safety Code; and to add Section 7252.3 to the Revenue and Taxation Code, and to add Sections 9314.5, and 317.5 to the Elections Code; relating to ballot measures and initiatives for transactions and use taxes for air quality purposes.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 40424.5 of the Health and Safety Code is amended to read:

40424.5. Except as provided in Section 40424.7, voting by the south coast district board on the adoption of all items on its agenda shall be by rollcall. Unless any board member objects, a substitute rollcall may be used on any agenda item. A substitute rollcall shall consist of a unanimous voice vote of the south coast district board members in attendance and shall be recorded by the clerk of the board as an “aye” vote for all members present. For purposes of this section, any consent calendar is a single item.

SECTION 2. Section 40424.7 is added to the Health and Safety Code, to read:

40424.7 (a) An ordinance solely related to the imposition of transactions and use taxes authorized by, and using procedures set forth in, this code, the Revenue and Taxations Code, and Article 1 (commencing with Section 9300) of Chapter 4 of Division 9 of the Elections Code, may be enacted in the south coast district by means of a ballot measure (i) approved by the south coast district board and placed on the ballot for subsequent approval by the voters, or (ii) placed on the ballot by a voter initiative for subsequent approval by the voters.

(b) Ordinances not related to transactions and use taxes shall not be enacted in the south coast district.

SECTION 3. Section 40490 is added to the Health and Safety Code, to read:

40490. (a) The south coast district board shall appoint a district election official for the purpose of overseeing, supervising, or conducting an election regarding voter approval of a ballot measure for the enactment, modification, or amendment of a transactions and use tax ordinance that is submitted to the voters by the board, without a petition, or by means of a qualified voter initiative.

(b) The district elections official shall oversee, supervise or conduct such elections specified in subdivision (a) as authorized by this code and shall utilize the applicable procedures set forth in Article 1 (commencing with Section 9300) of Chapter 4 of Division 9 of the Elections Code.

SECTION 4. Section 40495 is added to the Health and Safety Code, to read:

40495. (a) The south coast district board may submit a resolution to the board of supervisors of a county that is entirely or partly within the district to provide services that are reasonable and necessary to conduct an election in the district. Upon the presentation of such resolution by the district board, the county elections official shall provide such services to the district, and such services shall be performed by the county elections official in coordination and consultation with the district's election official. The resolution of the south coast district board shall specify the services requested.

(b) If the south coast district board submits a resolution to a county that is entirely or partly within the district to direct the county elections official to prepare the district's election materials or provide other services, the county elections official shall work with the district's election official to set and finalize a list of its precincts, or consolidated precincts, as applicable, not later than 61 days before the election.

(c) Unless other arrangements satisfactory to an individual county has been made, the south coast district shall reimburse each county in full for the reasonable cost of the services performed by the county's election official upon presentation of a bill to the district.

SECTION 5. Article 9 (commencing with Section 40550) is added to Chapter 5.5 of Part 3 of Division 26 of the Health and Safety Code, to read:

ARTICLE 9. Transactions and Use Tax

40550. The Legislature, by the enactment of this article, intends that the south coast district use any funds provided by this article to supplement existing revenues being used for district purposes. All funds received by the south coast district pursuant to this article shall be used for financial incentives and programs to accelerate the deployment of lower-emission mobile and stationary equipment, along with alternative fueling and charging infrastructure, as necessary to implement the district's 2016 Air Quality Management Plan and subsequent district-adopted plans to achieve the state and national ambient air quality standards, except that up to 6.25% of total revenues may be used for administrative costs of implementing the programs authorized by this provision.

40560. Notwithstanding any other provision of law, a transactions and use tax ordinance applicable in the south coast district may be imposed throughout the entire district for specific purposes at a rate of up to 1 percent, that may, in combination with all taxes imposed in accordance with the Transactions and Use Tax Law (Part 1.6 (commencing with Section 7251) of the Revenue and Taxation Code), exceed the limit established by Section 7251.1 of the Revenue and Taxation Code, if all of the following requirements are met:

(a) An ordinance proposing the transactions and use tax is either adopted by (i) a majority vote of the south coast district board with subsequent submission to the electorate and approval by the

voters pursuant to the applicable voter approval requirement, or (ii) a voter initiative submitted to the electorate and approved by the voters pursuant to the applicable voter approval requirement.

(b) The transactions and use tax conforms to this article and the Transactions and Use Tax Law (Part 1.6 (commencing with Section 7251) of the Revenue and Taxation Code), other than Section 7251.1 of the Revenue and Taxation Code.

40565. A transactions and use tax ordinance may set a term during which the tax may be imposed.

40566. The district shall ensure that, averaged over three years, a minimum of 50% of the funds used for financial incentives are awarded to projects located in, and/or benefiting individuals living in, disadvantaged communities, as identified pursuant Health & Safety Code Section 39711.

40567. In awarding contracts distributing the financial incentives, the district shall provide a preference for any project using equipment that is manufactured or assembled within the district.

40568. Funds available pursuant to this article shall not be allocated for the purchase of fully automated cargo handling equipment. For the purposes of this section, “fully automated” means equipment that is remotely operated or remotely monitored, with or without the exercise of human intervention or control. This section does not prohibit the use of the funds for a project that includes the purchase of human-operated zero-emission equipment, human-operated near-zero-emission equipment, infrastructure supporting that human-operated equipment, or other technologies that increase freight efficiencies in the human-operated equipment. Furthermore, this section does not prohibit the purchase of devices that support that human-operated equipment, including equipment to evaluate the utilization and environmental benefit of human-operated equipment.

40569. Beginning the year after the first calendar year in which funds are made available to the district pursuant to this article, the district shall include in its report to the legislature required by Health and Safety Code Section 40452 a report of the projects funded for the previous year and the expected emission reductions to be obtained from those projects.

40570. (a) Each of the counties which are situated in whole or in part within the south coast district shall conduct an election called by the south coast district board for the submission of a transactions and use tax to the electorate of the district for approval.

(b) Unless otherwise specifically provided, the election shall be called by the south coast district board and conducted by each county in the same manner as provided by the Elections Code for the conduct of elections for districts.

40573. (a) The regular election date for the south coast district shall be the date of the statewide general election as provided in Section 1200 of the Elections Code. Such election shall be consolidated with the statewide general election.

40574. (a) Whenever an election is called by the south coast district board, the question or proposition is to appear upon the same ballot as that provided for the statewide general election. The district shall, at least 88 days prior to the date of the election, file with the board of supervisors of each county that is within or partly within the district, with a copy to each county's election official, a resolution of the south coast district board that does all of the following:

(1) Sets forth the exact form of the question or proposition to be voted upon at the election, as it is to appear on the ballot. The question or proposition to appear on the ballot shall conform to the Election Code provisions governing the wording of propositions submitted to the voters at a statewide election.

(2) Acknowledges that the consolidated election will be held and conducted in the manner prescribed in Section 10418 of the Elections Code.

(b) The resolution regarding the form of the question or proposition and consolidation shall be adopted and filed at the same time as the adoption of the ordinance, resolution, or order calling the election.

40575. (a) The returns of the election provided for in this Article and the Elections Code shall be made, and the votes shall be canvassed, by the county elections official in each county contained in the south coast district within (30) days after holding the election, and the county elections officials shall certify the results of the election in each of their respective counties, and shall present such certified results to the district elections official for presentation to the board of the south coast district.

(b) The returns of the election, the method of canvassing, and the results thereof shall be designated and declared in accordance with Section 10418 of the Elections Code.

40580. (a) Any transactions and use tax ordinance adopted pursuant to this article shall be operative on the first day of the first calendar quarter commencing more than 110 days after the adoption of the ordinance.

(b) Prior to the operative date of the ordinance, the California Department of Tax and Fee Administration, or such other state agency as provided by law, shall contract with the south coast district to perform all functions incident to the administration and operation of the ordinance.

SECTION 6. Section 7252.3 is added to the Revenue and Taxation Code, to read:

7252.3. "District," as used in this part, also means the South Coast Air Quality Management District, if authorized to impose transactions and use taxes pursuant to this part. This section shall remain in effect as long as Article 9 (commencing with Section 40600) of the Health and Safety Code remains in effect, but shall be repealed upon the repeal of that article.

SECTION 7. Section 9314.5 is added to the Elections Code, to read:

9314.5. (a) As used in this section:

(1) “South coast district” means the South Coast Air Quality Management District as authorized pursuant to Chapter 5.5 (commencing with Section 40400) of Part 3 of Division 26 of the Health and Safety Code.

(2) “Legal counsel for the south coast district” means the attorney designated under the district’s conflict of interest code as its legal officer pursuant to Article 3 (commencing with Section 87300) of Chapter 7 of Title 9 of the Government Code.

(b) Whenever a ballot measure is submitted to the voters of the south coast district, the district elections official shall transmit a copy of the measure to the legal counsel of the south coast district. Except as otherwise provided in subdivision (c), the legal counsel for the south coast district shall prepare an impartial analysis of the measure showing the effect of the measure on the existing law and the operation of the measure. The analysis shall include a statement indicating whether the measure was placed on the ballot by a petition signed by the requisite number of voters or by the governing body of the south coast district without a petition. The analysis shall be printed in the voter information guide preceding the arguments for and against the measure. The analysis shall not exceed 500 words in length.

If the entire text of the measure is not printed on the ballot nor in the voter information guide, there shall be printed immediately below the impartial analysis, in not less than 10-point bold type, a legend substantially as follows:

“The above statement is an impartial analysis of Ordinance or Measure _____. If you desire a copy of the ordinance or measure, please call the district elections official’s office at (insert telephone number) and a copy will be mailed at no cost to you.”

(c) If there is no legal counsel for the south coast district, or if the legal counsel for the south coast district and county counsel of the county that contains the largest number of registered voters of the district agree, county counsel shall prepare the impartial analysis.

(d) This section shall remain in effect as long as Article 9 (commencing with Section 40600) of Chapter 5.5 of Part 3 of Division 26 of the Health and Safety Code remains in effect, but shall be repealed upon the repeal of that article.

SECTION 8. Section 317.5 is added to Chapter 4 of Division 0.5 of the Elections Code to read:

317.5. “District” for purposes of Section 1405 of this code, and for purposes of initiative under Article 1 (commencing with Section 9300) of Chapter 4 of Division 9, includes the South Coast Air Quality Management District, as authorized pursuant to Chapter 5.5 (commencing with Section 40400) of Part 3 of Division 26 of the Health and Safety Code.

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 25

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee held a meeting on Friday, February 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Dr. Clark E. Parker, Sr., Chair
Mobile Source Committee

PMF:SLR:AK

Committee Members

Present: Dr. Clark E. Parker, Sr./Chair (videoconference, arrived at 10:20 a.m.)
Dr. Joseph Lyou, Vice Chair
Mayor Pro Tem Larry McCallon
Mayor Judith Mitchell

Absent: Supervisor V. Manuel Perez

Call to Order

Vice Chair Dr. Lyou called the meeting to order at 9:00 a.m. as Dr. Parker had not yet arrived.

ACTION ITEM:

1. Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17

Carol Gomez, Planning and Rules Manager, summarized the local government financial and program implementation activities that occurred during FY 2016-17. Ms. Gomez reported that 359 projects were funded, resulting in the overall reduction of 134 tons, comprised of 37.8 tons NOx, 46 tons VOC, 12.8 tons PM2.5 and 37.4 tons CO/7, with an average cost- effectiveness of \$25/lb. Ms. Gomez highlighted a change in methodology for calculating emission reductions from traffic coordination efforts in L.A. County, which previously had accounted for a large percent of total emission reductions from the local government AB 2766 program.

Mayor Pro Tem McCallon noted progress with an MSRC partnership. They are working on a three-year plan. He emphasized that AB 2766 funding can be leveraged with MSRC.

Mayor Mitchell wondered if the change in Automatic Traffic Surveillance and Control project (ATSAC) methodology had been supported by CARB and asked if cities are able to accumulate funds over years, to which Ms. Gomez responded affirmatively to both.

Dr. Lyou asked with the change in methodology to the ATSAC program, if other emission quantification methodologies used in the program were reliable.

Ms. Gomez noted that when approved by CARB the previous ATSAC methodology had been a deviation from the accepted methodology for that type of project, and that staff has full confidence in the emission calculations methodologies now being used for the ATSAC program.

Moved by Dr. Lyou; seconded by Mayor Mitchell; Motion passed without objections by committee members present.

INFORMATIONAL ITEM:

2. Update on Development of Facility-Based Mobile Source Measures in 2016 AQMP

Dr. Sarah Rees, Assistant Deputy Executive Officer/Planning, Rule Development, and Area Sources, provided an update on activity regarding the development of Facility-Based Mobile Source Measures for airports, ports, new and redevelopment, warehouses, and rail yards.

Mayor Pro Tem McCallon inquired whether the potential indirect source rule (ISR) for warehouses and distribution centers will cover all facilities within the SCAQMD's jurisdiction, and where high-cube warehouses are located. Dr. Rees replied that large warehouses are mostly located in the Inland Empire region, and staff is evaluating the potential rule applicability.

Mayor Mitchell asked whether the potential emission reductions have been quantified for the Pacific Rim Initiative for Maritime Emission Reductions (PRIMER), and Dr. Lyou inquired about the interest from shipping lines to collaborate. Dr. Rees responded that emission reductions are expected to come from retrofits of existing vessels with the potential for about a 40% reduction in NO_x, and from incentivizing Tier 3 vessels to call at the Port of Los Angeles (POLA) and Port of Long Beach (POLB). She added that staff has initiated studies with consultants,

and a potential technology demonstration project with MAN—a major marine engine manufacturer—in collaboration with the shipping line CMA CGM.

Mayor Mitchell asked how PRIMER would align with CARB's At-Berth regulation and whether PRIMER can bring additional emission reduction benefits beyond shore power usage. Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development & Area Sources, explained that the At-Berth Regulation allows for alternative compliance option to reduce emissions from vessels' auxiliary engines, and vessel retrofit could potentially be an alternative which reduces vessel emissions not only at berth but also during transit and maneuvering. Mr. Wayne Nastri, Executive Officer, added that China is interested in increasing shore power usage at their ports, with one port there showing only about 1% usage. In comparison, CARB's At-Berth regulation currently requires 70% compliance for container ships, and CARB is considering increasing the requirement in its proposed At-Berth regulation amendment to 100%. Dr. Rees clarified that PRIMER is currently envisioned to be an incentive-based program for vessels. Mr. Nastri added that the incentive of \$5,000-\$7,500 per call currently offered by the POLA and POLB has not been sufficient to attract Tier III vessels, and therefore, it is important to build a collaborative effort among different ports sharing the same transpacific shipping routes.

Mayor Mitchell inquired whether SCAQMD can implement a program similar to San Joaquin Valley Air Pollution Control District's (SJVAPCD) rule, and if a new development ISR could be limited to certain kinds of construction projects. Dr. Rees replied that the volume of new development projects within the SCAQMD's jurisdiction is a concern for implementing a program similar to SJVAPCD's, but staff is continuing to evaluate all options, including the types of projects that might be included.

Dr. Lyou expressed a desire for transparency of the MOU process that is currently being pursued with the POLA and POLB and five airports. He suggested the need to involve all stakeholders, including technology developers, in the development of MOUs. Dr. Lyou also asked whether the MOU development is adhering to the original timeline discussed with the Board and on track for Board consideration in November 2019. Mr. Nastri confirmed both are the case and added that he had a recent discussion with the executive directors of POLA and POLB to ensure progress moving forward.

Dr. Lyou inquired about the fleet crediting concept and whether the regulated warehouses would trade credits among themselves, akin to a cap-and-trade program. He emphasized that the potential ISR will need to make sure not to exacerbate environmental justice problems, for example by allowing some warehouses to

continue business as usual with credits obtained from warehouses located elsewhere, and that he wants to discuss this kind of approach in more detail at a future time.

About two dozen representatives from Inland Empire communities, environmental groups, and labor organizations urged SCAQMD to adopt a strong warehouse ISR. They include:

- **Teamsters:** Shaun Martinez
- **Community members:** Laura Schultz (retired San Bernardino County employee), and Juan Delgado (former employee of Stater Brothers distribution center)
- **Sierra Club:** Yassi Kavezade, Miguel Rivera, Hannah Velez, Ricardo Caballero, Rebecca Hernandez, Ashley Alvarado, Ricardo Hernandez, Adam Wedding (also a church representative), Diana Olivia Sierra, Miguel Ramirez, Carmen Chim, Jonas Hernandez, Elisa Eifler, Diana Contreras, and Carlo De La Cruz
- **Center for Community Action and Environmental Justice:** Andrea Vidaurre and Ericka Flores
- **Warehouse Worker Resources Center:** Veronica Alvarado

Many cited the adverse health impacts associated with warehouse and truck emissions, which disproportionately impact the inland empire region and result in environmental injustice in predominantly minority communities. They also commented on new warehouses being located closer to schools and residences, and how air pollution has impacted the life of their community members, especially the future of young adults and children. Some commented that the economic benefits of warehousing development in the region do not outweigh the adverse air quality impact and the low quality of warehousing jobs.

Many of these commenters also stated that their preferred ISR approach is to implement facility caps that would require warehouses to directly control the emissions associated with trucks visiting a facility, and to also require the use of zero emission trucks and infrastructure. Ms. Vidaurre commented that facility caps will lead to direct behavioral changes that are needed for emission reductions at each warehouse instead of waiting for voluntary changes to happen in the industry. Ms. Alvarado commented on the working conditions at warehouses and that certain cargo owners own and have control over their truck fleets, even when they adopt the independent owner-operator business model. Ms. Flores commented that truck-related pollution is a major concern in the communities close to rail yards, and staff will need to discuss capping rail yard emissions with community residents.

Regarding the Ports MOU, Ms. Heather Tomley with the Port of Long Beach reiterated both Ports' commitment to implementing their 2017 Clean Air Action Plan (CAAP). She affirmed that both Ports participate in the biweekly discussion with staff, are part of the technical working group that was recently launched, and that there are high-level commitments from the Ports.

Mr. Thomas Jelenic with the Pacific Merchant Shipping Association emphasized the need to seek SIP creditable emission reductions from both MOU and ISR approaches. He commented that the 2017 CAAP Clean Truck Program may not be SIP creditable as there is no associated scrappage requirement, and therefore the high-polluting trucks may be used elsewhere in the South Coast region. He concluded that SIP creditability needs to be determined before the Ports MOU is finalized.

Dr. Parker remarked that SCAQMD staff will need to clarify with the community the SCAQMD's responsibilities and authority. He added that any mitigation fees that would be collected as part of a potential ISR would not relieve warehouses of responsibility as it would be an ongoing requirement that would lead directly to reduced emissions.

Mayor Mitchell commented that an outline of SIP creditable emission reduction strategies is needed. She also reminded staff that CARB is proposing zero-emission airport shuttles by 2035, which will need to be taken into account for airport MOUs.

Mayor Pro Tem McCallon asked whether there is a targeted goal of emission reductions from facility based mobile source measures. Dr. Rees replied that feasible emission reduction targets are currently being evaluated.

Dr. Lyou commented that, for Ports and warehouses, staff will need to identify cargo owners and their respective truck fleets and/or carriers. Dr. Parker added that, given that SCAQMD does not have authority over private truck fleets, it is important to keep in mind that SCAQMD can only reduce truck emissions through its authority over warehouses.

Dr. Parker joined the meeting at 10:20 a.m.

WRITTEN REPORTS:

3. Rule 2202 Activity Report: Rule 2202 Summary Status Report

This item was received and filed.

4. Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update

This item was received and filed.

OTHER MATTERS:

5. Other Business

There was no other business.

6. Public Comment Period

There were no public comments.

7. Next Meeting Date

The next regular Mobile Source Committee meeting is scheduled for Friday, March 15, 2019.

Adjournment

The meeting adjourned at 10:36 a.m.

Attachments

1. Attendance Record
2. Rule 2202 Activity Report – Written Report
3. Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update – Written Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT MOBILE SOURCE COMMITTEE MEETING Attendance – February 15, 2019

Dr. Clark E. Parker, Sr. (Videoconference).....	SCAQMD Board Member
Dr. Joseph Lyou	SCAQMD Board Member
Mayor Pro Tem Larry McCallon.....	SCAQMD Board Member
Mayor Mitchell.....	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
Ron Ketcham.....	Board Consultant (McCallon)
Ashley Alvarado.....	Sierra Club
Veronica Alvarado	Warehouse Worker Resources Center
Ricardo Caballero.....	Sierra Club
Chris Cannon.....	Port of Los Angeles
Carmen Chim	Sierra Club
Curtis Coleman.....	Southern CA Air Quality Alliance
Diana Contreras.....	Sierra Club
Carlo De La Cruz	Sierra Club
Juan Delgado	Sierra Club
Elisa Eifler.....	Sierra Club
Jonas Fernandez	Sierra Club
Ericka Flores	Center for Community Action and Environmental Justice
Rebecca Hernandez	Sierra Club
Ricardo Hernandez.....	Sierra Club
Thomas Jelenic.....	Pacific Merchant Shipping Association
Yassi Kavezade	Sierra Club
Bill LaMarr.....	California Small Business Alliance
Shaun Martinez	Teamster
Diana Olivia Sierra.....	Sierra Club
Bill Pearce	Boeing
Miguel Ramirez.....	Sierra Club
Miguel Rivera.....	Sierra Club
Andrea Rosas.....	Sierra Club
David Rothbart	Los Angeles County Sanitation District
Laura Schultz.....	Teamster
Andy Silva.....	San Bernardino County
Heather Tomley.....	Port of Long Beach
Hannah Velez	Sierra Club
Andrea Vidaurre.....	Center for Community Action and Environmental Justice
Adam Wedding	Sierra Club
Tammy Yamasaki	Southern California Edison

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE COMMITTEE MEETING
Attendance – February 15, 2019**

Barbara Baird.....	SCAQMD Staff
Naveen Berry	SCAQMD Staff
Brian Choe	SCAQMD Staff
Philip Fine.....	SCAQMD Staff
Angelica Enriquez.....	SCAQMD Staff
Bayron Gilchrist.....	SCAQMD Staff
Lane Garcia.....	SCAQMD Staff
Carol Gomez	SCAQMD Staff
Erika Graham.....	SCAQMD Staff
Kathrine Higgins.....	SCAQMD Staff
Jeff Inabinet	SCAQMD Staff
Angela Kim.....	SCAQMD Staff
Wei Li	SCAQMD Staff
Andrew Lee.....	SCAQMD Staff
Ian MacMillan	SCAQMD Staff
Terrance Mann	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Ron Moskowitz.....	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Tuyet-le Pham.....	SCAQMD Staff
Zorik Pirveysian.....	SCAQMD Staff
Sarah Rees.....	SCAQMD Staff
Ricardo Rivera	SCAQMD Staff
Elaine Shen	SCAQMD Staff
Lijin Sun	SCAQMD Staff
Laki Tisopulos	SCAQMD Staff
Veera Tyagi.....	SCAQMD Staff
Jill Whynot.....	SCAQMD Staff
Paul Wright.....	SCAQMD Staff



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

Rule 2202 Summary Status Report

Activity for January 1, 2019 to January 31, 2019

Employee Commute Reduction Program (ECRP)	
# of Submittals:	10

Emission Reduction Strategies (ERS)	
# of Submittals:	26

Air Quality Investment Program (AQIP) Exclusively		
County	# of Facilities	\$ Amount
Los Angeles	1	\$ 12,944
Orange	0	\$ 0
Riverside	0	\$ 0
San Bernardino	0	\$ 0
TOTAL:	1	\$ 12,944

ECRP w/AQIP Combination		
County	# of Facilities	\$ Amount
Los Angeles	0	\$ 0
Orange	0	\$ 0
Riverside	0	\$ 0
San Bernardino	1	\$ 10,140
TOTAL:	1	\$ 64,292

Total Active Sites as of January 31, 2019

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
495	17	11	523	103	736	1,362
36.34%	1.25%	0.81%	38.4%	7.56%	55.04%	100% ⁴

Total Peak Window Employees as of January 31, 2019

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
359,718	5,848	10,409	375,975	15,968	334,257	726,200
49.53%	0.81%	1.43%	51.77%	2.2%	46.03%	100% ⁴

- Notes:**
1. ECRP Compliance Option.
 2. ECRP Offset (combines ECRP w/AQIP). AQIP funds are used to supplement the ECRP AVR survey shortfall.
 3. ERS with Employee Survey to get Trip Reduction credits. Emission/Trip Reduction Strategies are used to supplement the ECRP AVR survey shortfall.
 4. Totals may vary slightly due to rounding.

BOARD MEETING DATE: March 1, 2019

AGENDA NO.

REPORT: Lead Agency Projects and Environmental Documents Received By SCAQMD

SYNOPSIS: This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between January 1, 2019 and January 31, 2019, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, February 15, 2019, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:DG:LS:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period January 1, 2019 through January 31 2019 is included in Attachment A. A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B. A total of 73 CEQA documents were received during this reporting period and 35 comment letters were sent. Notable projects to highlight in this report include the Adoption of Regulations to Implement SB 1383 - Short Lived Climate Pollutants Organic (SLCP) Waste Methane Emission Reduction Requirements in the State of California and the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernadine, and Ventura.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles

and Environmental Justice Initiative #4. As required by the Environmental Justice Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify, for each project, the dates of the public comment period and the public hearing date, if applicable. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period January 1, 2019 through January 31, 2019, the SCAQMD received 73 CEQA documents. Of the total of 94 documents* listed in Attachments A and B:

- 35 comment letters were sent;
- 29 documents were reviewed, but no comments were made;
- 20 documents are currently under review;
- 0 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 10 documents were screened without additional review.

* These statistics are from January 1, 2019 to January 31, 2019 and may not include the most recent “Comment Status” updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD’s CEQA webpage at the following internet address:

<http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>.

SCAQMD Lead Agency Projects (Attachment C) – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a “project” as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for three active projects during January.

Attachments

- A. Incoming CEQA Documents Log
- B. Ongoing Active Projects for Which SCAQMD Has or Will Conduct a CEQA Review
- C. Active SCAQMD Lead Agency Projects

<u>SCAQMD LOG-IN NUMBER</u>	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Warehouse & Distribution Centers	The proposed project consists of construction of a 545,735-square-foot warehouse on 26.05 acres. The project is located on the southwest corner of Arrow Highway and Vincent Avenue.	Mitigated Negative Declaration	City of Irwindale	SCAQMD staff commented on 1/22/2019
LAC190104-01 5175 Vincent Avenue Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190104-01.pdf Comment Period: 12/20/2018 - 1/22/2019 Public Hearing: 1/30/2019			
Warehouse & Distribution Centers	The proposed project consists of demolition of 11,225 square feet of existing buildings and construction of a 140,000-square-foot self-storage facility on 1.61 acres. The project is located on the southwest corner of Woodley Avenue and Hart Street in the community of Van Nuys - North Sherman Oaks.	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
LAC190124-01 ENV-2018-4247: North Woodley Ave	Comment Period: 1/24/2019 - 2/13/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of 230,292 square feet of warehouses on 14.89 acres. The project is located on the northeast corner of Decker Road and Old Oleander Avenue in the community of Mead Valley.	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 1/15/2019
RVC190111-01 Plot Plan No. 180033	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-01.pdf Comment Period: 12/7/2018 - 1/18/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of a 373,368-square-foot warehouse on 18.37 acres. The project is located on the northeast corner of Perry Street and Harvill Avenue in the community of Mead Valley.	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 1/15/2019
RVC190111-02 Plot Plan No. 180034	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-02.pdf Comment Period: 12/26/2018 - 1/18/2019 Public Hearing: N/A			

**Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.*

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers RVC190115-01 General Plan Amendment GPA 18-2501, Zone Change 18-3501, and Design Review 18-7001	The proposed project consists of construction of a 146,890-square-foot warehouse on 19.69 acres. The project is located on the southwest corner of 8th Street and Lincoln Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190115-01.pdf Comment Period: 1/11/2019 - 1/31/2019 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Banning	SCAQMD staff commented on 1/24/2019
Warehouse & Distribution Centers RVC190122-02 Pars Global Self Storage Project	The proposed project consists of construction of a 115,000-square-foot self-storage facility on 3.3 acres. The project is located on the northeast corner of Jackson Avenue and Nutmeg Street. Comment Period: 1/17/2019 - 2/16/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Murrieta	Document reviewed - No comments sent
Warehouse & Distribution Centers RVC190124-02 General Plan Amendment GPA 18-2501, Zone Change 18-3501, and Design Review 18-7001	The proposed project consists of construction of a 146,890-square-foot warehouse on 19.69 acres. The project is located on the southwest corner of 8th Street and Lincoln Street. Reference RVC190115-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Banning	Document reviewed - No comments sent
Warehouse & Distribution Centers RVC190125-01 Conditional Use Permit No. 2019-013	The proposed project consists of construction of a 21,052-square-foot warehouse on 4.26 acres. The project is located at 33325 Bailey Park Boulevard on the southwest corner of Scott Road and Bailey Park Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-01.pdf Comment Period: 1/16/2019 - 2/11/2019 Public Hearing: N/A	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
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<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Warehouse & Distribution Centers</i> SBC190117-01 Alder - Baseline Road Project	The proposed project consists of construction of a 255,173-square-foot warehouse on 11.63 acres. The project is located on the northwest corner of Alder Avenue and Base Line Road. Reference SBC181221-06 Comment Period: N/A Public Hearing: 1/30/2019	Response to Comments	City of Rialto	Document reviewed - No comments sent
<i>Warehouse & Distribution Centers</i> SBC190124-04 Alder II Warehouse	The proposed project consists of construction of a 78,680-square-foot warehouse on 4.10 acres. The project is located on the northwest corner of Base Line Road and Alder Avenue. Reference SBC181221-08 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Rialto	Document reviewed - No comments sent
<i>Industrial and Commercial</i> LAC190109-01 El Monte Green Group, LLC and Green Mountain Alliance, LLC	The proposed project consists of demolition of 6,500 square feet of existing structures and remodeling of 132,908 square feet of existing commercial buildings on 4.9 acres. The project is located on the southwest corner of Baldwin Avenue and Gidley Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190109-01.pdf Comment Period: 1/8/2019 - 1/28/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of El Monte	SCAQMD staff commented on 1/15/2019
<i>Industrial and Commercial</i> LAC190110-07 French Market Project	The proposed project consists of construction of a 83,455-square-foot building for commercial, office, and retail uses with subterranean parking on 0.9 acres. The project is located on the northwest corner of Hayden Drive and Santa Monica Boulevard. Comment Period: 9/20/2018 - 11/5/2018 Public Hearing: 10/22/2018	Draft Environmental Impact Report	City of West Hollywood	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Industrial and Commercial	The proposed project consists of construction of a parking lot with 200 tractor trailer stalls on 7.26 acres. The project is located near the southwest corner of West Perry Street and North Perris Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-01.pdf Comment Period: 12/28/2018 - 1/11/2019 Public Hearing: N/A	Site Plan	City of Perris	SCAQMD staff commented on 1/10/2019
RVC190108-01 Duke Realty - Conditional Use Permit #18-05300				
Industrial and Commercial	The proposed project consists of construction of a 144,000-square-foot industrial building on 7.26 acres. The project is located near the southwest corner of West Perry Street and North Perris Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-06.pdf Comment Period: 12/28/2018 - 1/11/2019 Public Hearing: N/A	Site Plan	City of Perris	SCAQMD staff commented on 1/10/2019
RVC190108-06 Duke Realty - Conditional Use Permit #18-00011				
Industrial and Commercial	The proposed project consists of construction of a recreational vehicle parking lot with 469 pads and a 1,400-square-foot recreational building on 78.3 acres. The project is located on the southeast corner of Dillon Road and Silver Oak Lane. Comment Period: 1/15/2019 - 2/4/2019 Public Hearing: 3/6/2019	Mitigated Negative Declaration	City of Coachella	Document reviewed - No comments sent
RVC190122-01 Red Moon Recreational Vehicle (RV) Park				
Waste and Water-related	The proposed project consists of approval of Class 2 permit to add hazardous waste codes to existing permit to consolidate aerosol cans for transfer. The project is located at 5375 South Boyle Avenue on the northwest corner of East 54th Street and South Boyle Avenue in the City of Vernon. Comment Period: N/A Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent
LAC190102-05 Class 2 Permit Modification for U.S. Ecology Vernon				

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> LAC190115-07 Summer Flow Augmentation of Malibu Creek Project	The proposed project consists of modifications to existing water reclamation facility with installation of ammonia removal facilities and 1,270 feet of 8-inch pipeline. The project is located at 731 Malibu Canyon Road on the southwest corner of Malibu Canyon Road and Piuma Road. Comment Period: 1/14/2019 - 2/12/2019 Public Hearing: N/A	Mitigated Negative Declaration	Las Virgenes - Triunfo Joint Powers Authority	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190122-04 AAD Distribution and Dry Cleaning Services, Inc.	The proposed project consists of development of supplemental remedial actions to clean up residual perchloroethylene in the soils through installation of a vapor barrier, a passive soil vapor venting system, and a land use covenant agreement with a monitoring program. The project is located at 2306 East 38th Street on the southwest corner of East 38th Street and South Santa Fe Avenue in the City of Vernon. Comment Period: 1/21/2019 - 2/18/2019 Public Hearing: N/A	Draft Remedial Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190124-03 Culver Boulevard Realignment and Stormwater Treatment Project	The proposed project consists of roadway improvements to a 0.45-mile segment of Culver Boulevard and construction of a subsurface stormwater treatment capture facility on 1.6 acres. The project is located along Culver Boulevard between Sepulveda Boulevard and Elenda Street. Reference LAC181218-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Culver City	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC190125-03 East West Valley Interceptor Sewer Project	The proposed project consists of construction of 15,785 linear feet of pipeline ranging in diameter from 24 to 48 inches. The project is located along Victoria Boulevard between Vineland Avenue and Haskell Avenue in the communities of North Hollywood - Valley Village and Van Nuys - North Sherman Oaks. Comment Period: 1/25/2019 - 2/25/2019 Public Hearing: N/A	Notice of Preparation	City of Los Angeles	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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**ATTACHMENT A
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January 01, 2019 to January 31, 2019**

<u>SCAQMD LOG-IN NUMBER</u>	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Waste and Water-related	The proposed project consists of deposition of 175,000 tons of quarried rock to expand existing 175-acre Wheeler North Reef to create 210 acres of additional kelp reef. The project is located on submerged lands offshore of the City of San Clemente. Reference ORC181204-07, ORC140403-10, ORC130328-01, and ORC100330-05	Final Subsequent Environmental Impact Report	California State Land Commission	Document reviewed - No comments sent
ORC190125-04 Construction and Management of an Artificial Reef in the Pacific Ocean near San Clemente, California: Wheeler North Reef Expansion Project				
	Comment Period: N/A Public Hearing: 2/4/2019			
Waste and Water-related	The proposed project consists of demolition of existing booster pump station (BPS) and construction of new BPS with one of two options. Option one includes construction of new BPS at a new location that is 3,000 feet north of the existing site. Option two includes construction of new BPS at the same location. The project will also include construction of a 1,000-square-foot BPS building and pipeline with pumping capacity of 11,400 gallons per minute. The project is located along Murrieta Road between Case Road and Ethanac Road.	Notice of Intent to Adopt a Mitigated Negative Declaration	Eastern Municipal Water District	Document reviewed - No comments sent
RVC190111-07 Murrieta Road Booster Pump Station Replacement Project				
	Comment Period: 12/27/2018 - 2/7/2019 Public Hearing: 2/20/2019			
Waste and Water-related	The proposed project consists of installation of six water recovery wells and one 24-inch pipeline that would connect to the Colorado River Aqueduct. The project is located on the northeastcorner of Bradley Road and East Rider Street in the City of Perris. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190122-12.pdf	Notice of Preparation	Department of Water Resources	SCAQMD staff commented on 2/12/2019
RVC190122-12 Lake Perris Seepage Recovery Project				
	Comment Period: 1/14/2019 - 2/13/2019 Public Hearing: 1/29/2019			
Waste and Water-related	The proposed project consists of development of remedial actions to remove and clean up contaminated soil with dieldrin. The project is located at 1675 West Park Avenue in the City of Redlands.	Draft Removal Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent
SBC190102-04 Layne Christensen Redlands Project				
	Comment Period: 12/26/2018 - 1/24/2019 Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
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SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Waste and Water-related	The proposed project consists of performance of annual routine maintenance activities, inspections, and vector and vegetation control on 50 acres. The project is located on the northwest corner of Wineville Avenue and Francis Street in the City of Ontario.	Mitigated Negative Declaration	County of San Bernardino	Document reviewed - No comments sent
SBC190122-03 Wineville Basin Routine Maintenance Project				
	Comment Period: 1/15/2019 - 2/15/2019 Public Hearing: N/A			
Transportation	The proposed project consists of construction of street medians and roadway improvements to Ramona Boulevard. The project is located at the intersection of Valley Boulevard and Valley Mall.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of El Monte	Document reviewed - No comments sent
LAC190102-03 Ramona Boulevard/Valley Boulevard Intersection Improvement Project				
	Comment Period: 12/27/2018 - 1/28/2019 Public Hearing: 2/5/2019			
Transportation	The proposed project consists of construction of one 12-foot general purpose lane on State Route (SR) 91 and one 10-foot outside shoulder between SR-57 and SR-55. The project will also include restoration of auxiliary lanes and widening of SR-91 over the Santa Ana River. The project is located on SR-91 from Post Mile (PM) 4.8 to PM R10.4, SR-57 from PM 15.6 to PM 16.4, and SR-55 from PM 17.5 to PM R17.9 in the cities of Anaheim, Fullerton, Orange, and Placentia in Orange County.	Notice of Intent to Adopt a Negative Declaration	California Department of Transportation	Document reviewed - No comments sent
ORC190102-12 State Route 91 Improvement Project between State Route 57 and State Route 55				
	Comment Period: 11/20/2018 - 12/21/2018 Public Hearing: N/A			
Transportation	The proposed project consists of construction of tolled express lanes on a 14.7-mile segment of Interstate 15 from 0.3 miles south of Cantu-Galleano Ranch Road (Post Mile 49.8) to 1.2 miles north of Duncan Canyon Road (Post Mile 12.2). The project traverses through the cities of Eastvale, Jurupa Valley, and Fontana in the counties of Riverside and San Bernardino. Reference RVC180220-01	Response to Comments	California Department of Transportation	Document reviewed - No comments sent
RVC190118-04 Interstate 15 Corridor Project				
	Comment Period: N/A Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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January 01, 2019 to January 31, 2019**

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>Institutional (schools, government, etc.)</i>	The proposed project consists of construction of student housing facilities with a total of 6,000 beds on 55 acres. The project is located at 900 University Avenue near the southwest corner of Aberdeen Drive and North Campus Drive in the City of Riverside. Reference RVC180621-05	Notice of Availability of a Draft Environmental Impact Report	Regents of the University of California	Document reviewed - No comments sent
RVC190102-07 North District Development Plan				
	Comment Period: 12/19/2018 - 2/1/2019 Public Hearing: 1/22/2019			
<i>Institutional (schools, government, etc.)</i>	The proposed project consists of demolition of two residential units, one inn, and 12 portable classrooms. The project will also include construction of three buildings with 12 classrooms and modernization of six buildings. The project is located at 3610 Eucalyptus Avenue on the southwest corner of 6th Street and Franklin Avenue in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190102-10.pdf	Notice of Preparation	Riverside Unified School District	SCAQMD staff commented on 1/15/2019
RVC190102-10 Longfellow Elementary School Expansion Project				
	Comment Period: 12/21/2018 - 1/21/2019 Public Hearing: 1/14/2019			
<i>Institutional (schools, government, etc.)</i>	The proposed project consists of construction of two sports fields with 200 seats on 11.19 acres. The project is located on the northwest corner of Gloucester Way and Chatham Drive in the City of Riverside.	Notice of Preparation	Riverside Unified School District	Under review, may submit written comments
RVC190118-03 Polytechnic High School Project				
	Comment Period: 1/22/2019 - 2/22/2019 Public Hearing: 1/30/2019			
<i>Institutional (schools, government, etc.)</i>	The proposed project consists of construction of a 68,401-square-foot church, a 1,500-square-foot maintenance building, a 7,838-square-foot water retention basin, and a 54,000-square-foot sports field on 27.12 acres. The project will also include 13.5 acres of open space. The project is located on the northwest corner of State Route 18 and Daley Canyon Road in the community of Rimforest.	Notice of Availability of a Draft Revised Environmental Impact Report	County of San Bernardino	Under review, may submit written comments
SBC190115-02 Church of the Woods Project				
	Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
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<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Institutional (schools, government, etc.)</i> SBC190118-01 Family Resources Center and District Police Headquarters Project	The proposed project consists of demolition of existing church and motel, and construction of a 19,020-square-foot family resource center and a 15,772-square-foot police headquarters on 4.33 acres. The project is located at 777 North F Street, and 736 and 746 North E Street on the northeast corner of West 7th Street and North F Street. Reference SBC180821-03 Comment Period: 1/17/2019 - 3/4/2019 Public Hearing: N/A	Draft Environmental Impact Report	San Bernardino City Unified School District	Under review, may submit written comments
<i>Medical Facility</i> LAC190102-08 West Los Angeles Medical Center Campus Master Plan	The proposed project consists of redevelopment and consolidation of 95 buildings totaling 2.82 million square feet on 388 acres. The northern portion of the project is located on the northeast corner of San Vicente Boulevard and Wilshire Boulevard. The southern portion of the project is located near the southwest corner of Interstate 405 and Wilshire Boulevard in the City of Los Angeles. Comment Period: 12/13/2018 - 1/29/2019 Public Hearing: N/A	Draft Program Environmental Impact Statement	United States Department of Veterans Affairs	Document reviewed - No comments sent
<i>Retail</i> LAC190111-03 Venice Place Project	The proposed project consists of demolition of 5,253 square feet of existing buildings and construction of 63,891 square feet of retail, office, and commercial uses on 1.1 acres. The project is located on the northeast corner of Abbot Kinney Boulevard and Broadway Street in the community of Venice. Reference LAC170113-03 Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
<i>Retail</i> RVC190108-15 Tower Market Rancho Mirage	The proposed project consists of construction of a gasoline service station with 12 pumps and a 5,300-square-foot convenience store on 3.25 acres. The project is located on the northeast corner of Monterey Avenue and Frank Sinatra Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190108-05.pdf Comment Period: 1/4/2019 - 2/4/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Rancho Mirage	SCAQMD staff commented on 1/24/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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January 01, 2019 to January 31, 2019

<u>SCAQMD LOG-IN NUMBER</u>	<u>PROJECT DESCRIPTION</u>	<u>TYPE OF DOC.</u>	<u>LEAD AGENCY</u>	<u>COMMENT STATUS</u>
PROJECT TITLE				
Retail	The proposed project consists of construction of a hotel with 108 rooms, 140 residential units, and retail uses totaling 601,816 square feet on three acres. The project is located on the southeast corner of Dune Palms Road and State Route 111. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC190111-06.pdf Comment Period: 1/2/2019 - 1/22/2019 Public Hearing: 1/22/2019	Mitigated Negative Declaration	City of La Quinta	SCAQMD staff commented on 1/18/2019
RVC190111-06 Highway 111 and Dune Palms Road Specific Plan Amendment				
Retail	The proposed project consists of construction of a mixed-use development with 482 residential units, a gasoline service station with 12 pumps, 49,500 square feet of retail uses, and two hotels with 229 rooms on 35.4 acres. The project is located on the northeast corner of State Route 60 and North Orange Street. Comment Period: 1/15/2019 - 3/1/2019 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Riverside	Under review, may submit written comments
RVC190115-03 The Exchange				
General Land Use (residential, etc.)	The proposed project consists of construction of a 81,772-square-foot building with 119 residential units on 0.61 acres. The project is located on the northwest corner of Santa Monica Boulevard and Beloit Avenue in the community of West Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190102-02.pdf Comment Period: 12/27/2018 - 1/28/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/16/2019
LAC190102-02 ENV-2018-3039: 11261 West Santa Monica Boulevard				
General Land Use (residential, etc.)	The proposed project consists of construction of a 345,700-square-foot building with 120 hotel rooms, 100 residential units, 165,000 square feet of commercial uses, and 42,000 square feet of cultural uses on 1.2 acres. The project is located on the northeast corner of Ocean Avenue and Santa Monica Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190102-06.pdf Comment Period: 12/28/2018 - 1/30/2019 Public Hearing: 1/10/2019	Notice of Preparation	City of Santa Monica	SCAQMD staff commented on 1/24/2019
LAC190102-06 Ocean Avenue Project				

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) LAC190102-14 Santa Monica - Barrington Mixed-Use Project	The proposed project consists of construction of a 316,520-square-foot building with 180 residential units and subterranean parking. The project is located at 11650 West Santa Monica Boulevard on the southwest corner of Santa Monica Boulevard and Barry Avenue in the community of West Los Angeles. Reference LAC160607-02, LAC160517-01, and LAC160510-04	Notice of Availability of a Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 12/27/2018 - 2/10/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190102-15 West Village at Calabasas Project	The proposed project consists of construction of 15 buildings with 180 residential units and a 5,867-square-foot retail center. The project will also include 66.1 acres of open space on 77.22 acres. The project is located at 4790 Las Virgenes Road on the southeast corner of Agoura Road and Las Virgenes Road. Reference LAC170901-13	Draft Environmental Impact Report	City of Calabasas	Document reviewed - No comments sent
	Comment Period: 12/21/2018 - 2/19/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190104-02 ENV-2018-4709: 10247 North Variel Avenue	The proposed project consists of demolition of a single-family dwelling unit and construction of 32 residential units on 0.52 acres. The project is located on the southwest corner of Variel Avenue and Devonshire Street in the community of Chatsworth - Porter Ranch.	Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 1/3/2019 - 1/23/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190104-04 ENV-2013-3747-EIR: Landmark Apartments Project	The proposed project consists of demolition of a 42,900-square-foot building and construction of a 34-story residential building with 376 units on 2.8 acres. The project is located at 11750-11770 Wilshire Boulevard on the northwest corner of South Barrington Avenue and Wilshire Boulevard in the community of Brentwood. Reference LAC181004-04, LAC170711-10, LAC160901-01, LAC160429-03, and LAC140307-04	Final Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project.

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ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

<u>SCAQMD LOG-IN NUMBER</u>	<u>PROJECT DESCRIPTION</u>	<u>TYPE OF DOC.</u>	<u>LEAD AGENCY</u>	<u>COMMENT STATUS</u>
PROJECT TITLE				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of two existing buildings and construction of 36 residential units and subterranean parking. The project is located on the southeast corner of Mission Street and Fairview Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190108-02.pdf Comment Period: 1/7/2019 - 2/5/2019 Public Hearing: N/A	Notice of Preparation	City of South Pasadena	SCAQMD staff commented on 1/24/2019
LAC190108-02 Mission Bell Mixed-Use Project				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 234 residential units and 14,184 square feet of commercial uses on 1.89 acres. The project is located on the southwest corner of Lankershim Boulevard and Riverside Drive in the community of Toluca Lake. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC190111-04.pdf Comment Period: 1/10/2019 - 1/30/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/24/2019
LAC190111-04 ENV-2016-3904: Lankershim and Riverside Project				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 52 residential units on 2.44 acres. The project is located on the southwest corner of Bermuda Street and Sepulveda Boulevard in the community of Mission Hills. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190116-01.pdf Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/6/2019
LAC190116-01 ENV-2017-628: 15418 Bermuda Street				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of existing structures and construction of 18 residential units on 11.92 acres. The project is located on the northeast corner of Old Santa Susana Pass Road and Calle Milagros in the community of Chatsworth-Porter Ranch. Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
LAC190116-02 ENV-2016-3175: 1000 N. Old Santa Susana Pass Road				

- Project has potential environmental justice concerns due to the nature and/or location of the project. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019**

<u>SCAQMD LOG-IN NUMBER</u>	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 175 residential units and 23,665 square feet of recreational uses on eight acres. The project is located on the northeast corner of South Central Avenue and East Victoria Street.	Mitigated Negative Declaration	City of Carson	SCAQMD staff commented on 2/14/2019
LAC190122-06 Victoria Greens	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190122-06.pdf Comment Period: 1/17/2019 - 2/15/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of existing structures and construction of a 121,639-square-foot building with 93 residential units on 1.7 acres. The project is located at 609 North Spurgeon Street on the northwest corner of French Street and East Santa Ana Boulevard.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Santa Ana	Document reviewed - No comments sent
ORC190110-01 Legacy Square Project	 Comment Period: 1/8/2019 - 1/29/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of a 33,200-square-foot medical facility and construction of 31 residential units totaling 53,060 square feet on 1.76 acres. The project is located at 9861 11th Street on the southeast corner of Brookhurst Street and 11th Street.	Mitigated Negative Declaration	City of Garden Grove	Document reviewed - No comments sent
ORC190115-04 11th Street Townhome Project	 Comment Period: 1/11/2019 - 1/31/2019 Public Hearing: 2/7/2019			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of a 68,000-square-foot parking lot and construction of 39 residential units on 1.57 acres. The project is located on the northeast corner of North Street and Pauline Street.	Mitigated Negative Declaration	City of Anaheim	SCAQMD staff commented on 1/24/2019
ORC190115-05 Downtown Anaheim 39 Residential Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC190115-05.pdf Comment Period: 1/10/2019 - 1/29/2019 Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>General Land Use (residential, etc.)</i>	The proposed project consists of restoration of historic riparian habitat with development of erosion quality measures and trail improvements on 11.3 acres. The project is located at 1900 Back Bay Drive on the southwest corner of Domingo Drive and Amigos Way.	Response to Comments	City of Newport Beach	Document reviewed - No comments sent
ORC190115-06 Big Canyon Coastal Habitat Restoration and Adaptation - Phase 2A				
	Comment Period: N/A Public Hearing: 1/22/2019			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of demolition of existing commercial building and construction of a 70,591-square-foot building with 65 residential units on two acres. The project is located at 7122-7140 Westminster Boulevard on the southeast corner of Westminster Boulevard and Locust Street.	Mitigated Negative Declaration	City of Westminster	Document reviewed - No comments sent
ORC190118-02 Case No. 2018-172				
	Comment Period: 1/14/2019 - 2/4/2019 Public Hearing: 1/23/2019			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of a 54,530-square-foot building with 60 residential units on 2.27 acres. The project is located on the northwest corner of Pujol Street and Main Street.	Mitigated Negative Declaration	City of Temecula	Document reviewed - No comments sent
RVC190108-04 Vine Creek Multifamily Residential Development				
	Comment Period: 1/8/2019 - 2/7/2019 Public Hearing: N/A			
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of 88 residential units and a hotel with 350 rooms on a 5.5-acre portion of 17.69 acres. The project is located on northwest corner of Country Club Drive and Cook Street.	Notice of Preparation	City of Palm Desert	Under review, may submit written comments
RVC190122-05 DSRT SURF Specific Plan				
	Comment Period: 1/22/2019 - 2/20/2019 Public Hearing: N/A			

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ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
General Land Use (residential, etc.)	The proposed project consists of design changes to a previously approved tentative tract map for future construction of 118 townhomes on 24.9 acres. The project is located on the southwest corner of Rubidoux Boulevard and 28th Street. Reference RVC181113-03, RVC15113-03, RVC160406-07, RVC161216-01, and RVC170511-02 Comment Period: 1/16/2019 - 1/28/2019 Public Hearing: 2/13/2019	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
RVC190122-08 MA18141 (TTM37640 & Amendment to PUD-02 Development Plan)				
General Land Use (residential, etc.)	The proposed project consists of change to zoning ordinance for future construction of 336 residential units on 31.6 acres and conservation of 37.8 acres of open space. The project is located on the northeast corner of Menifee Road and Newport Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-05.pdf Comment Period: 1/22/2019 - 2/11/2019 Public Hearing: N/A	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019
RVC190125-05 Menifee Lakes (Village) Specific Plan Amendment No. 8 (Specific Plan Amendment No. 2019-017)				
Plans and Regulations	The proposed project consists of addition of Chapter 12 - Short-lived Climate Pollutants to the California Code of Regulations, Title 14 (14 CCR), Division 7, and Title 27 (27 CCR), Division 2 to implement and/or modify organic waste handling, processing, and disposal requirements pursuant to Senate Bill 1383 requirements. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ALL190104-03.pdf Comment Period: 12/11/2018 - 1/10/2019 Public Hearing: 1/31/2019	Notice of Preparation	California Department of Resources Recycling and Recovery	SCAQMD staff commented on 1/10/2019
ALL190104-03 Adoption of Regulations to Implement SB 1383 - Short Lived Climate Pollutants Organic (SLCP) Waste Methane Emission Reduction Requirements				
Plans and Regulations	The proposed project consists of development of a long-range transportation plan and land use policies, strategies, actions, and programs to identify and accommodate current and future mobility goals, policies, and needs for the next 25 years. The project is located on 38,000 square miles encompassing six counties including Imperial, Los Angeles, Orange, Riverside, San Bernadine, and Ventura. Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: 2/13/2019	Notice of Preparation	Southern California Association of Governments	Under review, may submit written comments
ALL190123-01 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy				

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ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
January 01, 2019 to January 31, 2019

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Plans and Regulations</i> LAC190102-13 Citywide Zoning Ordinance	The proposed project consists of development of a citywide ordinance for residential, mixed-use, commercial, industrial, and other zoning districts to be consistent with land use changes adopted by the City General Plan. Comment Period: 12/26/2018 - 1/26/2019 Public Hearing: N/A	Notice of Intent to Adopt a Negative Declaration	City of Walnut	Document reviewed - No comments sent
<i>Plans and Regulations</i> LAC190122-09 Alhambra General Plan, Vision 2040 - A Community Mosaic	The proposed project consists of updates to City General Plan for the next 20 years. The project is located southwest of the Huntington Drive and North Granada Avenue intersection. Reference LAC180803-05 Comment Period: N/A Public Hearing: 1/22/2019	Response to Comments	City of Alhambra	Document reviewed - No comments sent
<i>Plans and Regulations</i> LAC190125-02 Los Angeles Zoo Vision Plan	The proposed project consists of development of vision and design principles to guide future development on 133 acres, including modernization of buildings and infrastructure, animal care and guest amenities, exhibit space, and administrative and services facilities. The project will also include construction of support visitor-serving buildings and parking facilities to accommodate increasing visitation over a 20-year period. The project is located at 5333 Zoo Drive on the southwest corner of Zoo Drive and Western Heritage Way in the community of Hollywood. Comment Period: 1/24/2019 - 3/11/2019 Public Hearing: 2/7/2019	Notice of Preparation	City of Los Angeles	Under review, may submit written comments

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ATTACHMENT B*

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>General Land Use (residential, etc.)</i>	The proposed project consists of construction of a 211,000-square-foot building with 215 guestrooms and 250 residential units on 28.9 acres. The project is located at 21845 Magnolia Street on the southwest corner of Hamilton Avenue and Magnolia Street. Comment Period: 12/17/2018 - 3/18/2019 Public Hearing: N/A	Draft Program Environmental Impact Report	City of Huntington Beach	Under review, may submit written comments
ORC181219-04 Magnolia Tank Farm				
<i>Warehouse & Distribution Centers</i>	The proposed project consists of demolition of a 3,800-square-foot building and construction of a 55,000-square-foot warehouse with a 38,400-square-foot freezer and a 7,000-square-foot cooler dock on 7.7 acres. The project is located on the northeast corner of East E Street and McFarland Avenue in the community of Wilmington-Harbor City. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181221-03.pdf Comment Period: 12/20/2018 - 1/9/2019 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/8/2019
LAC181221-03 ENV-2018-5430: 801-829 East E St.				
<i>Warehouse & Distribution Centers</i>	The proposed project consists of construction of 273,000 square feet of warehouse uses to be added to existing 864,000-square-foot warehouse on 10.2 acres. The project is located at 657 West Nance Street on the northeast corner of Webster Avenue and Markham Street. Reference RVC180328-01, RVC141209-09, RVC141202-06, RVC140808-04, RVC140604-03 and RVC140523-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181218-03.pdf Comment Period: 12/14/2018 - 1/28/2019 Public Hearing: N/A	Draft Supplemental Environmental Impact Report	City of Perris	SCAQMD staff commented on 1/24/2019
RVC181218-03 Major Modification 17-05075 to Integra Perris Distribution Center Project				
<i>Warehouse & Distribution Centers</i>	The proposed project consists of construction of a 255,173-square-foot warehouse on 11.63 acres. The project is located on the northwest corner of Alder Avenue and Base Line Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181221-06.pdf Comment Period: 12/21/2018 - 1/9/2019 Public Hearing: 1/30/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/8/2019
SBC181221-06 Alder - Baseline Road Project				
<i>Warehouse & Distribution Centers</i>	The proposed project consists of construction of a 78,680-square-foot warehouse on 4.10 acres. The project is located on the northwest corner of Base Line Road and Alder Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181221-08.pdf Comment Period: 12/22/2018 - 1/10/2019 Public Hearing: 1/30/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/8/2019
SBC181221-08 Alder II Warehouse				

**Sorted by Comment Status, followed by Land Use, then County, then date received.*

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B

<u>SCAQMD LOG-IN NUMBER</u>	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>Industrial and Commercial</i>	The proposed project consists of demolition of a 96,335-square-foot building and construction of a 229,741-square-foot storage building on 0.84 acres. The project is located on the southwest corner of South Hope Street and South Grand Avenue in the community of Downtown Los Angeles.	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 1/2/2019
LAC181221-02 ENV-2018-870: 3600 S. Hope St.	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181221-02.pdf Comment Period: 12/21/2018 - 1/14/2019 Public Hearing: N/A			
<i>Waste and Water-related</i>	The proposed project consists of construction of 2.5 miles of portable water pipelines. The project is located on the northwest corner of De Soto Avenue and Roscoe Boulevard within the communities of Chatsworth-Porter Ranch and Canoga Park-Winnetka-Woodland Hills-West Hills.	Mitigated Negative Declaration	Los Angeles Department of Water and Power	SCAQMD staff commented on 1/4/2019
LAC181204-05 De Soto Trunk Line Replacement	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-05.pdf Comment Period: 11/27/2018 - 1/11/2019 Public Hearing: N/A			
<i>Waste and Water-related</i>	The proposed project consists of roadway improvements to a 0.45-mile segment of Culver Boulevard and construction of a subsurface stormwater treatment capture facility on 1.6 acres. The project is located along Culver Boulevard between Sepulveda Boulevard and Elenda Street.	Mitigated Negative Declaration	City of Culver City	SCAQMD staff commented on 1/9/2019
LAC181218-01 Culver Boulevard Realignment and Stormwater Treatment Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181218-01.pdf Comment Period: 12/13/2018 - 1/14/2019 Public Hearing: 1/28/2019			
<i>Waste and Water-related</i>	The proposed project consists of development of risk reduction and remedial actions in response to safety issues at the project. The project is located on the southwest corner of Rosemead Boulevard and San Gabriel Boulevard in the City of Pico Rivera. Reference LAC130903-08	Draft Environmental Impact Statement	United States Army Corps of Engineers	SCAQMD staff commented on 1/24/2019
LAC181219-02 Whittier Narrows Dam Safety Modification Study	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181219-02.pdf Comment Period: 12/11/2018 - 1/28/2019 Public Hearing: 1/12/2019			
<i>Transportation</i>	The proposed project consists of construction of an overcrossing bridge of 326 feet in length and 122 feet in width, a bridge structure of 605 feet in length and 120 feet in width, and an interchange at State Route 86 and Avenue 50 from Post Mile (PM) R19.2 to PM R21.6. The project will also include widening of a portion of Avenue 50 from two lanes to six lanes. The project is located at the existing interchange between State Route 86 and Dillon Road interchange in the City of Coachella.	Mitigated Negative Declaration	California Department of Transportation	SCAQMD staff commented on 1/4/2019
RVC181205-09 State Route 86/Avenue 50 New Interchange Project	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181205-09.pdf Comment Period: 12/6/2018 - 1/7/2019 Public Hearing: 12/21/2018			

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ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Institutional (schools, government, etc.)</i> SBC181212-02 Mental Health Crisis Facility	The proposed project consists of demolition of existing building and construction of a 47,000-square-foot mental health treatment facility with 50 beds on three acres. The project is located at 14901 Central Avenue near the southeast corner of Central Avenue and Eucalyptus Avenue in the City of Chino. Reference SBC180711-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181212-02.pdf Comment Period: 12/6/2018 - 1/28/2019 Public Hearing: 1/10/2019	Notice of Availability of a Draft Environmental Impact Report	California Department of Corrections and Rehabilitation	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> LAC181204-04 California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48-acre portion of 19.36 acres. The project is located on the northeast corner of East 10th Street and North Todd Avenue. Reference LAC180627-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-04.pdf Comment Period: 11/28/2018 - 1/28/2019 Public Hearing: 1/16/2019	Notice of Availability of a Draft Environmental Impact Report	City of Azusa	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> LAC181204-10 9034 Sunset Boulevard Project	The proposed project consists of demolition of five residential units and construction of a 496,137-square-foot building with 237 hotel rooms, 10 residential units, and subterranean parking on 1.29 acres. The project is located southeast corner of North Doheny Drive and West Sunset Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181204-10.pdf Comment Period: 11/29/2018 - 1/11/2019 Public Hearing: 12/12/2018	Notice of Preparation	City of West Hollywood	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> LAC181219-03 Reese Davidson Community Project	The proposed project consists of construction of a 105,770-square-foot building with 140 residential units on 2.66 acres. The project is located at 2102 South Pacific Avenue on the southeast corner of South Pacific Avenue and West 21st Street in the community of Venice. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181219-03.pdf Comment Period: 12/18/2018 - 1/21/2019 Public Hearing: 1/14/2019	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> LAC181221-10 713 East 5th Street Project	The proposed project consists of demolition of a 14,475-square-foot building and construction of a 33,007-square-foot building with 51 residential units on 0.13 acres. The project is located near the northwest corner of Stanford Avenue and 5th Street in the community of Central City. Reference LAC180601-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC181221-10.pdf Comment Period: 12/20/2018 - 2/4/2019 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 2/1/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>General Land Use (residential, etc.)</i> ORC181205-10 Newport Crossings Mixed-Use Project	The proposed project consists of demolition of a 58,277-square-foot shopping center, and construction of 350 residential units, a 2,000-square-foot restaurant, 5,500 square feet of commercial uses, a 0.5-acre public park, and subterranean parking on 5.7 acres. The project is located on the southeast corner of Corinthian Way and Scott Drive. Reference ORC171103-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC181205-10.pdf Comment Period: 11/30/2018 - 1/14/2019 Public Hearing: 12/6/2018	Draft Environmental Impact Report	City of Newport Beach	SCAQMD staff commented on 1/11/2019
<i>General Land Use (residential, etc.)</i> ORC181214-01 Mercury Residential Project	The proposed project consists of construction of a 171,433-square-foot building with 120 residential units. The project is located on the southeast corner of Mercury Lane and South Berry Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/ORC181214-01.pdf Comment Period: 12/13/2018 - 1/22/2019 Public Hearing: 1/14/2019	Notice of Preparation	City of Brea	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> RVC181219-01 Change of Zone No. 07544, EIR No. 500 and Tentative Tract Map No. 36030	The proposed project consists of construction of 314 residential units on 242 acres. The project will also include 76 acres of open space. The project is located on the southeast corner of Nuevo Road and Sky Drive in the community of Nuevo. Reference RVC140610-05 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/RVC181219-01.pdf Comment Period: 12/11/2018 - 1/24/2019 Public Hearing: N/A	Draft Environmental Impact Report	Riverside County Planning Department	SCAQMD staff commented on 1/22/2019
<i>General Land Use (residential, etc.)</i> SBC181212-01 Etiwanda Heights Neighborhood & Conservation Plan Project	The proposed project consists of construction of 3,000 residential units, 180,000 square feet of commercial and retail uses, an elementary school with 600 students, and 450 acres of open space on a 1,212-acre portion of 5,388 acres. The project will also include annexation of 4,088 acres from County of San Bernardino. The project is located on the northeast corner of Base Line Road and Haven Avenue. Reference SBC180102-08 and SBC170912-13 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181212-01.pdf Comment Period: 12/4/2018 - 1/21/2019 Public Hearing: 12/12/2018	Revised Notice of Preparation	City of Rancho Cucamonga	SCAQMD staff commented on 1/8/2019
<i>General Land Use (residential, etc.)</i> SBC181218-04 Sunflower Residential Project	The proposed project consists of construction of 184 residential units on 15.95 acres. The project is located on the northwest corner of Foothill Boulevard and Spruce Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/SBC181218-04.pdf Comment Period: 12/17/2018 - 1/15/2019 Public Hearing: 2/13/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 1/15/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS
OR IS CONTINUING TO CONDUCT A CEQA REVIEW

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Plans and Regulations</i> LAC181120-08 Hollywood Community Plan Update	The proposed project consists of development of amendments to land use policies, land use map, zoning ordinances, and development of a community plan implementation overlay district on 13,962 acres. The project is located on the southwest of the State Highway 134 and Interstate Highway 5 junction. Reference LAC160527-06, LAC160503-16, LAC111007-01 and LAC110308-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/january/LAC181120-08.pdf Comment Period: 11/15/2018 - 1/31/2019 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 1/30/2019

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JANUARY 31, 2019

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments. SCAQMD staff has reviewed the responses to comments and provided edits.	Environmental Audit, Inc.
Quemetco is proposing to modify existing SCAQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke, and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	A Notice of Preparation/Initial Study (NOP/IS) was released for a 56-day public review and comment period from August 31, 2018 to October 25, 2018, and 154 comment letters were received. Two CEQA scoping meetings were held on September 13, 2018 and October 11, 2018 in the community. SCAQMD staff is reviewing the comments received.	Trinity Consultants

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JANUARY 31, 2019

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Mira Loma Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the Selective Catalytic Reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario	SCAQMD staff provided revisions to the Draft Addendum for the consultant to incorporate, and the consultant has submitted a revised Draft Addendum, which is undergoing SCAQMD staff review.	Yorke Engineering, LLC

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 26

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a meeting on Friday, February 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit, Chair
Stationary Source Committee

LT:cr

Committee Members

Present: Council Member Ben Benoit/Chair (videoconference)
Dr. Joseph Lyou/Vice Chair
Supervisor Janice Hahn (videoconference)
Mayor Judith Mitchell
Supervisor V. Manuel Perez (videoconference)

Absent: Supervisor Janice Rutherford

Call to Order

Chair Benoit called the meeting to order at 10:40 a.m.

INFORMATIONAL ITEMS:

1. Annual RECLAIM Audit Report for 2017 Compliance Year

Dr. Laki Tisopulos, Deputy Executive Officer/Engineering & Permitting, presented the annual report on the NOx and SOx RECLAIM program prepared in accordance with Rule 2015 - Backstop Provisions. The report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the twenty-fourth year of this program. In addition, recent trends in trading future year RTCs are analyzed and presented. Dr. Tisopulos concluded by stating that the RECLAIM program met all its program objectives and recommended that the Annual RECLAIM Audit Report for 2017 Compliance Year be presented to the Board for approval.

Dr. Lyou asked what happens in the event a facility does not have sufficient amount of RTCs to cover its emissions for a given compliance year. Dr. Tisopulos responded that the facility's future year allocation is reduced automatically by an amount equivalent to the shortfall.

2. RECLAIM Quarterly Report – 4th Update

Susan Nakamura, Assistant Deputy Executive Officer/Planning, Rule Development, and Area Sources, provided the quarterly update regarding transitioning the NOx RECLAIM program to a command-and-control regulatory structure and highlighted the key issues surrounding New Source Review (NSR).

In response to Mayor Mitchell, staff confirmed that the second internal bank would be in addition to the open market.

Bill Pearce, Boeing, commented that he is pleased that his facility has been transitioned out of RECLAIM and expressed appreciation for staff's work.

Dr. Lyou asked about SCAQMD's obligation to ensure offsets for future NSR events and if the SCAQMD can require a facility to sell emission reduction credits (ERCs). Barbara Baird, Chief Deputy District Counsel, responded that the SCAQMD does not have a legal obligation to ensure sufficient offsets. Dr. Tisopulos responded that there is no legal ability to require someone to sell their ERCs.

Dr. Lyou asked if the concept of another internal bank and the programmatic demonstration for Rule 2005 offset obligations has been discussed with U.S. EPA. Ms. Nakamura replied that the supply of offsets is the next topic that will be discussed with the U.S. EPA. She also stated staff has discussed the programmatic demonstration offset obligations with the U.S. EPA but they have not provided any formal comments. In addition, Dr. Lyou asked if SCAQMD has checked with the legislature on SB 288 issues and requested to keep the legislature informed. Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, stated that CARB has oversight over SB 288 and they have been participating in the RECLAIM Working Group meetings.

Mayor Mitchell commented that if there are no offsets available and equipment is not permitted, then companies will not stay in the district or cannot open or expand their businesses. Ms. Nakamura confirmed that this is the agency's concern. Dr. Lyou added that this is especially important for businesses that are mandated to take organic waste and create renewable natural gas. Mayor Mitchell also mentioned that there is a state policy to avoid having companies leave the state.

3. Summary of Proposed Amended Rule 1134 – Emission of Oxides of Nitrogen from Stationary Gas Turbines

Michael Morris, Planning and Rules Manager, presented a summary of the proposed amendments to Rule 1134.

Dr. Lyou asked why the Liquid – Outer Continental Shelf NO_x limits were higher than other proposed limits. Mr. Morris responded that the limit reflects use of diesel fuel, and diesel fuel is only used when produced gas is not available, which is infrequent because gas produced at the site is free.

Mayor Mitchell asked why there are concerns about the proposed ammonia limit for compressor turbines. Mr. Morris replied that the combination of low NO_x and ammonia limits has not been demonstrated for that category of turbines.

Dr. Lyou asked about the impact on particulate emissions and what NO_x emissions would be created if low-use turbines were allowed to operate up to the 10% annual average capacity. Dr. Fine explained that the resulting particulate emissions would be very small. Mr. Morris added that if low-use turbines were allowed to operate as is, the NO_x emissions would be on the order of a few tenths of a ton per day.

4. Update on Implementation of Rule 1111- Reduction of NO_x Emissions from Natural-Gas-Fired, Fan Type Central Furnaces

Michael Krause, Planning and Rules Manager, provided a status update on implementation of Rule 1111 and the Clean Air Furnace Rebate Program.

Mayor Mitchell asked what the difference is between certified units and commercialized units. Staff responded that certified units have been tested to meet the NO_x emission limit of and commercialized units are available for purchase.

Mayor Mitchell asked why the number of rebate claims are so low. Ms. Nakamura responded that there could be a variety of reasons, such as consumers are not aware of the compliant units or the rebate. She explained that staff is contemplating sending a Compliance Advisory to distributors, dealers, and contractors to communicate information on compliant units.

Dr. Lyou asked if there are any reasons not to open the rebate to builders. Mr. Krause added that expanding the rebate to new home builders could help further commercialize compliant units. Dr. Fine responded that initially the rebate was focused on consumers.

Mr. Karl Dunwoody, Trane and American Standard, requested that the implementation date be extended due to the lack of product availability and that a cutoff date for manufacturing non-compliant units be imposed instead of a mitigation fee end date. He also stated that there should be incentives for zero emission heat pumps.

Mr. Rusty Tharp, Goodman, commented that there is a lack of compliant product selection for the consumer. He stated more time is needed for due diligence necessary to complete safety tests, and expressed support for a 6 month sell-through period.

Mr. Dave Winningham, Lennox International, acknowledged challenges in developing new technology and stated that his company offers a portfolio of compliant products. He also stated regulatory certainty is the key to drive market adoption of compliant products, and that a sell-through provision would delay compliance.

Mr. Mark Woodruff, Ingersoll Rand, commented that the market is not ready for the mitigation fee option to end and does not agree with staff's recommendation. Mr. Woodruff stated that ten percent of the market is not covered due to lack of availability for varying load sizes. He added there are no commercialized "down flow" furnaces, which account for five to ten percent of customers, and high efficiency units cannot be paired with air conditioning systems of another brand. Mr. Woodruff supports a 6-month extension of the mitigation fee option plus another 6-month sell-through period.

Mr. Jeff Winter, Howard Industries, expressed concern that the sell-through provision is not the same as an extension of the mitigation fee option. He commented that the rule is allowing a monopoly in this market and expressed support for a 6-month sell-through period.

Mr. Braden Cook, Carrier Corporation, disagreed with staff's analysis that 90 percent of consumers are covered by compliant products. He stated that Carrier currently has 2 models available in the market, 16 out of 21 base compliant models available in the market are from a single manufacturer. Mr. Cook does not believe one manufacturer can support the market and stated support for a 6-month sell-through period.

Mr. Chris Forth, Johnson Controls, stated that his company will have compliant products by the end of the mitigation fee period but believes it is critical for SCAQMD to harmonize its policy with the San Joaquin Valley Air Pollution Control District home furnace rule. Mr. Forth also expressed concern that one manufacturer cannot support the market and supports a 6-month sell-through period.

Dr. Lyou requested that staff provide comments in response to public comments.

Dr. Fine noted that staff's estimate of 90 percent coverage is based on all the manufacturers' product lines available as of today, and that staff expects the market to get full coverage by the end of the mitigation fee period. He also stated that staff views a sell-through period as being the same as extending the mitigation fee period

and highlighted the dramatic advancements in the last 10 months as demonstrated by multiple manufacturers with compliant units.

Mayor Mitchell supported the staff recommendation to include builders in the rebate program and to maintain the current mitigation fee period with no extension.

Dr. Lyou agreed with Mayor Mitchell to proceed with Rule 1111 without an amendment and suggested the possibility of working with city permitting agencies to automate and spread awareness for the rebate program. Council Member Benoit agreed with Dr. Lyou's suggestions and supports the staff recommendations.

Supervisor Hahn and Supervisor Perez agreed with staff's recommendations and asked how staff will continue to work with manufacturers to bring compliant units to the market. Dr. Fine responded that staff will continue to track and monitor progress with the manufacturers with a goal to have 100 percent market coverage. He stated if there are issues, staff will return to the Stationary Source Committee. Dr. Fine explained that there are compliance options outside of rulemaking such as a group variance to cover specific and narrow demands in the market. Council Member Benoit commented that he is most concerned about availability of lower end units for families that are financially challenged.

WRITTEN REPORTS:

5. Notice of Violation Penalty Summary

The report was acknowledged by the Committee.

OTHER MATTERS:

6. Other Business

There was no other business.

7. Public Comment Period

There were no public comments.

8. Next Meeting Date

The next regular Stationary Source Committee meeting is scheduled for Friday, March 15, 2019.

Adjournment

The meeting was adjourned at 11:54 a.m.

Attachments

1. Attendance Record
2. Notice of Violation Penalty Summary

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMMITTEE

Attendance – February 15, 2019

Council Member Ben Benoit (videoconference).....	SCAQMD Governing Board
Dr. Joseph Lyou.....	SCAQMD Governing Board
Supervisor Janice Hahn (videoconference).....	SCAQMD Governing Board
Mayor Judith Mitchell	SCAQMD Governing Board
Supervisor V. Manuel Perez (videoconference).....	SCAQMD Governing Board
Marisa Perez	Board Consultant (Mitchell)
Andrew Silva.....	Board Consultant (Rutherford)
Curtis Coleman.....	Southern California Air Quality Alliance
Karl Dunwoody	Trane and American Standard
Chris M. Forth.....	Johnson Controls
Bill LaMarr.....	California Small Business Alliance
Rita Loof.....	RadTech
Bridget McCann.....	Western States Petroleum Association
Bill Pearce.....	Boeing
David Rothbart	Los Angeles County Sanitation Districts
Susan Stark	Marathon Petroleum
Rusty Thorp	Goodman
Jeff Winter	Howard Industries
Jeremy Winter	Howard Industries
Mark Woodruff.....	Ingersoll Rand
Tammy Yamasaki.....	Southern California Edison
Barbara Baird.....	SCAQMD staff
Amir Dejbakhsh.....	SCAQMD staff
Philip Fine	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Michael Krause.....	SCAQMD staff
Matt Miyasato.....	SCAQMD staff
Michael Morris.....	SCAQMD staff
Susan Nakamura	SCAQMD staff
Wayne Nastri	SCAQMD staff
William Thompson.....	SCAQMD staff
Laki Tisopulos	SCAQMD staff
Jill Whynot	SCAQMD staff

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office**

Item #5

January 2019 Settlement Penalty Report

DRAFT

<u>Total Penalties</u>		
Civil Settlements:		\$178,826.95
Settlements including SEP		\$5,000.00
MSPAP Settlements:		\$25,545.00
 Total Cash Settlements:		 \$204,821.95
Total SEP Value:		\$5,000.00
 Fiscal Year through 1 / 2019 Cash Total:		 \$4,956,551.95
Fiscal Year through 1 / 2019 SEP Value Only Total:		\$265,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
84052	AGGREKO INC	203	1/11/2019	SMP	P62759 P62760	\$7,500.00
118389	ARCO AM/PM, NYGREN/CARR PROPERTIES, INC	203 461 H&S 41960.2	1/2/2019	NAS	P67222	\$3,000.00
113706	ARCO AM/PM, TIME OUT, LLC	461 H&S 41960.2	1/9/2019	NAS	P66373	\$3,000.00
1073	BORAL ROOFING LLC	2004 2012	1/24/2019	ML	P57877	\$500.00
62649	CALIFORNIA PORTLAND CEMENT CO.	403	1/24/2019	NSF	P67105 P67107 P67110	\$8,500.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
176136	COSTA MESA COLLISION AND AUTO PAINTING <i>Suspended Penalty of \$750.00--the Facility shall remain in full compliance until January 18, 2021.</i>	203(a)	1/22/2019	BST	P63612	\$1,500.00
7411	DAVIS WIRE CORP	2004 2012	1/24/2019	ML	P59282 P63721 P64417	\$10,500.00
125579	DIRECTV	2004 2012	1/24/2019	ML	P57876	\$3,000.00
158700	GAMA CONTRACTING SVCS INC	221 1403	1/11/2019	NAS	P65907	\$10,176.95
142090	GATEGOURMET	2202	1/23/2019	SH	P64802	\$1,500.00
132299	JACCK OIL INC.	461	1/9/2019	NAS	P66374	\$3,000.00
175638	KB ENVIRONMENTAL, INC.	1403	1/8/2019	BST	P64854	\$900.00
550	LA CO., INTERNAL SERVICE DEPT	2012 2012 Appen A	1/24/2019	ML	P57891 P60273 P66202	\$2,000.00
115314	LONG BEACH GENERATION LLC	2004 2012 Appen A	1/24/2019	ML	P57095	\$750.00
8073	METROPOLITAN STEVEDORE COMPANY	203(b) 1155	1/24/2019	ML	P65101	\$2,500.00
51232	NEILL AIRCRAFT CO	203	1/24/2019	ML	P64211	\$20,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
117882	NELSON NAMEPLATE COMPANY	3002 3003	1/22/2019	NAS	P61725 P62496	\$5,000.00
72937	P. KAY METAL , INC.	203 221 1147 1420.2	1/24/2019	TRB	P64530 P64531	\$10,000.00
800168	PASADENA CITY, DWP	2012 2012 Appen A	1/11/2019	SH	P64412	\$2,000.00
4242	SAN DIEGO GAS & ELECTRIC	203(b) 2004(f)(1) 3002(c)(1)	1/24/2019	ML	P57094	\$1,000.00
117807	SERFAS SERVICE STN/ARCO #81851	461 H&S 41960.2	1/9/2019	NAS	P67678	\$3,000.00
133820	SHERATON TOWNHOUSE, L.P.	203 1146.2	1/11/2019	DH	P66804	\$25,000.00
176122	TECHNISOIL GLOBAL, INC	314	1/25/2019	BST	P67004	\$500.00
11119	THE GAS CO./ SEMPRA ENERGY	2004	1/24/2019	NSF	P67361	\$4,000.00
185848	VAN OWEN HOLDINGS LLC _ ROBERT ASSIL	1403	1/16/2019	SMP	P61121	\$50,000.00

Total Civil Settlements: \$178,826.95

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Supplemental Environmental Project (SEP) Settlement:						
52753	OC WASTE & RECYCLING, PRIMA DESHECHA <i>SEP to be completed by 12/31/19 or the Facility will pay the SEP value of \$5,000</i>	402 H&S 41700	1/31/2019	NAS	P63076	\$5,000.00

Total Settlements including SEP: \$5,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP Settlements						
179771	"A" CLEANERS	1421	1/17/2019	GC	P63865	\$350.00
154763	21ST CENTURY GROUP,INC. DBA EUCLID CHEVR	461	1/17/2019	GC	P63225	\$550.00
182903	7-ELEVEN INC #37981	461	1/17/2019	TF	P66357	\$1,200.00
155848	ARCO #06085 - CALIFORNIA FUEL DISPENSING	461	1/31/2019	GC	P68102	\$450.00
		H&S 41960.2				
174636	ARCO #42010, TREASURE FRANCHISE COMPANY,	461	1/17/2019	GC	P64979	\$400.00
163098	BEVERLY 76	461	1/17/2019	GC	P65261	\$720.00
184112	F ROBERTS, INC.	1403	1/31/2019	GC	P64526	\$1,700.00
157786	GAMMO CORPORATION	461	1/31/2019	GC	P65744	\$720.00
155593	HENKELS & MCCOY, INC.	13 CCR 2460	1/17/2019	GC	P66751	\$2,080.00
184841	KB HOMES INLAND EMPIRE/BELLANZA	403	1/17/2019	GC	P64758	\$3,400.00
186810	LENDERS CONSTRUCTION INC	1403	1/31/2019	TF	P66702	\$2,400.00
127674	MEESE, INC.	1147	1/31/2019	TF	P65169	\$1,600.00
181257	MONTEBELLO CONTAINER COMPANY, LLC	1146	1/17/2019	TF	P65171	\$1,600.00
135002	MONTY CLEANERS, DAVID HYO HYUN	1421	1/31/2019	TF	P67551	\$50.00
180105	MY GOODS MARKET #5706	461	1/17/2019	TF	P68154	\$1,500.00
119710	NOR-CAL BEVERAGE COMPANY, INC.	1146	1/17/2019	TF	P65165	\$1,600.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
168542	OAKRIDGE LANDSCAPE INC.	13 CCR 2460	1/17/2019	TF	P67655	\$800.00
112314	PRESSURE GROUT COMPANY	203(a) 13 CCR 2453 17 CCR 93116.3	1/31/2019	TF	P66755	\$2,200.00
187163	ROCKRIDGE RESOURCES INC	461	1/17/2019	TF	P63228	\$400.00
187163	ROCKRIDGE RESOURCES INC	203(a)	1/17/2019	TF	P63229	\$500.00
165523	VORSTEINER, INC.	109 201 203(a)	1/31/2019	TF	P63876	\$1,125.00
175221	WASSER FILTRATION INC., DBA PACIFIC PRES	203	1/31/2019	TF	P65770	\$200.00

Total MSPAP Settlements: \$25,545.00

DISTRICT'S RULES AND REGULATIONS INDEX FOR JANUARY 2019 PENALTY REPORT

REGULATION I - GENERAL PROVISIONS

Rule 109 Recordkeeping for Volatile Organic Compound Emissions

REGULATION II - PERMITS

Rule 201 Permit to Construct
Rule 203 Permit to Operate
Rule 221 Plans

REGULATION III - FEES

Rule 314 Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

Rule 402 Nuisance
Rule 403 Fugitive Dust - Pertains to solid particulate matter emitted from man-made activities
Rule 461 Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers,
Steam Generators, and Process Heaters
Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers
Rule 1147 NOx Reductions from Miscellaneous Sources
Rule 1155 Particulate Matter Control Devices

REGULATION XIV - TOXICS

Rule 1403 Asbestos Emissions from Demolition/Renovation Activities
Rule 1415 Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems
Rule 1420.2 Emission Standards for Lead from Metal Melting Facilities
Rule 1421 Control of Perchloroethylene Emissions from Dry Cleaning Operations

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004 RECLAIM Program Requirements

Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions

Rule 2012

Appendix A Protocol for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions

REGULATION XXII ON-ROAD MOTOR VEHICLE MITIGATION

Rule 2202 On-Road Motor Vehicle Mitigation Options

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements for Title V Permits

Rule 3003 Applications

CALIFORNIA HEALTH AND SAFETY CODE

41700 Violation of General Limitations

41960.2 Gasoline Vapor Recovery

CALIFORNIA CODE OF REGULATIONS

13 CCR 2453 Portable Equipment Application Process

13 CCR 2460 Portable Equipment Testing Requirements

17 CCR 93116.3 Air Resources Board - Portable Engine Air Toxics Control Measures (PE ATCM)

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 27

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting on Friday, February 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Joe Buscaino, Chair
Technology Committee

MMM:pmk

Committee Members

Present: Council Member Joe Buscaino/Chair (videoconference, arrived at 12:04 p.m.)
Supervisor Janice Hahn (videoconference)
Mayor Judith Mitchell
Supervisor V. Manuel Perez (videoconference)
Council Member Dwight Robinson

Absent: Mayor Pro Tem Larry McCallon

Call to Order

Mayor Mitchell called the meeting to order at 12:03 p.m. as Chair Joe Buscaino had not yet arrived.

ACTION ITEMS:

1. Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2018-19 Carl Moyer Program Award, Issue Program Announcements for Carl Moyer Program and SOON Provision, and Transfer Funds for Voucher Incentive Program

These actions are to adopt a Resolution recognizing up to \$31 million in Carl Moyer Program grant funds from CARB under SB 1107 with its terms and conditions for FY 2018-19 and issue Program Announcements for “Year 21” of the Carl Moyer Program and SOON Provision to provide incentive funding for zero and low emitting on- and off-road vehicles and equipment. Funding for the Carl Moyer and

SOON projects will be provided from the Carl Moyer Program SB 1107, AB 923 and other funds that may become available for projects eligible under the Carl Moyer Program. This action is to also transfer \$3 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the Voucher Incentive Program Fund (59) to continue funding truck replacement projects on a first-come, first-served basis.

Council Member Buscaino joined the meeting at 12:04 p.m.

Mayor Mitchell commented that she does not have a financial interest, but is required to identify for the record that she is a Board Member of CARB which is involved in this item.

Mayor Mitchell inquired about unused funds, evaluation criteria, and scrapping requirements. Staff explained unused funds can result from projects that fall through, as well as unused funds from other air districts, which are used to fund additional projects. Staff explained basic eligibility criteria and project ranking based on cost effectiveness, the need to scrap the existing vehicles, as well as inclusion of terms for any potential labor violations. Staff further indicated the ongoing efforts with CARB staff to allow a trade-down transaction whereby the 2010-compliant truck can be re-used by another fleet willing to scrap an older vehicle.

Based on an inquiry by Supervisor Hahn about outreach provided to owners of small fleets and the timeline to scrap an existing vehicle, staff explained the extensive outreach conducted on an annual basis for the Carl Moyer, Voucher Incentive Program (VIP) that specifically focuses on small fleets, and more recently the AB 617 community meetings. Specific outreach consists of workshops, brochures, eblasts and other correspondence, including outreach to small fleets. Staff also provides specific contacts and assistance in completing the application, and contracts with over 20 dealerships to further assist small fleets with completing their applications. The timeline is 18 months from execution of the contract to deploy the new vehicle.

Supervisor Hahn suggested that the incentive programs should also consider inductive charging for a dedicated zero emission truck and vehicle lane on the 710 freeway project. Staff explained electric trucks and inductive charging systems are not yet commercially available, as required by the program, but staff will continue to monitor the progress of this technology.

Council Member Robinson asked if the Carl Moyer Program precludes funding a vehicle at the 0.2g NOx level, and staff explained that the Carl Moyer program calls for funding technology that achieves emission reductions beyond current requirements, and that zero and near-zero emission vehicles are eligible. However, small fleets can qualify to purchase a 0.2g truck under the VIP.

Supervisor Perez inquired about the outreach efforts in the Coachella Valley. Staff explained workshops are scheduled for April 17 at the Coachella Valley Mosquito & Vector Control District. Information was also presented at AB 617 community meetings. Staff reaches out to Farm Bureaus and other businesses in the region, and consultants in the Coachella Valley conduct additional outreach. Supervisor Perez also asked if SunLine Transit Agency has previously applied, and staff explained we have and continue to work with SunLine Transit, especially regarding fuel cell buses and hydrogen infrastructure.

Moved by Mitchell; seconded by Robinson; unanimously approved.

Ayes: Buscaino, Hahn, Mitchell, Perez and Robinson
Noes: None
Absent: McCallon

2. Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, and Reimburse General Fund for Administrative Costs

U.S. EPA is executing a Supplemental Environmental Project (SEP) agreement and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. This action is to recognize up to \$161,352 into the Air Filtration Fund (75). These actions are to also execute agreements to install and maintain air filtration systems in an amount not to exceed \$153,284; execute or amend access agreement with a local school district; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to \$8,068 for SEP administration.

Moved by Hahn; seconded by Mitchell; unanimously approved.

Ayes: Buscaino, Hahn, Mitchell, Perez and Robinson
Noes: None
Absent: McCallon

3. **Approve and Adopt Technology Advancement Office Clean Fuels Program 2018 Annual Report and 2019 Plan Update and Resolution, Receive and File Revised Membership of Technology Advancement Advisory Group, and Approve and Adopt Membership Changes for Clean Fuels Advisory Group**
Each year by March 31, SCAQMD must submit to the California Legislative Analyst an approved Annual Report for the past year and a Plan Update for the current calendar year. Staff has reviewed the Clean Fuels Program with the Clean Fuels Advisory Group, the Technology Advancement Advisory Group and other technical experts. Additionally, the 2019 Clean Fuels Program Draft Plan Update was presented to the Technology Committee for review and comment at its October 19, 2018 meeting. This action is to approve and adopt the final Technology Advancement Clean Fuels Program Annual Report for 2018 and 2019 Plan Update as well as the Resolution finding that proposed projects do not duplicate any past or present programs. This action is to also receive and file revised membership of the Technology Advancement Advisory Group and approve and adopt membership changes to the SB 98 Clean Fuels Advisory Group.

Based on an inquiry from Council Member Robinson about participation of public utilities on the advisory groups, staff informed the committee that SoCalGas, the Los Angeles Department of Water & Power, and Southern California Edison are part of the advisory committees, and additional local entities are able to participate in the advisory retreats.

Council Member Robinson expressed concern about large-scale implementation of zero emission vehicles, especially electric infrastructure. He stated that the subsequent Clean Fuels Fund Plan should further emphasize infrastructure, including battery swap out. Staff explained that existing projects include battery storage, electric vehicle supply equipment (EVSE) and demand management related research.

Supervisor Hahn supported investigating roadway induction charging technology.

Mayor Mitchell asked how staff knows that the projects are not duplicative. Staff indicated that SCAQMD's projects are typically technology forcing, well ahead of projects conducted elsewhere.

Council Member Buscaino inquired about the software that may be used to ensure that duplicative projects are not done. Staff indicated that electronic files are kept on all projects, and any new proposals are vetted to ensure that duplication does not occur.

Moved by Mitchell; seconded by Robinson; unanimously approved.

Ayes: Buscaino, Hahn, Mitchell, Perez and Robinson

Noes: None

Absent: McCallon

OTHER MATTERS:

4. Other Business

There was no other business.

5. Public Comment Period

John Landherr, A-Z Bus Sales, provided comment on their relationship with Bluebird Bus and others, emphasizing availability of school buses that meet 0.02 g/bhp-hr using CNG and propane, as well as battery electric. He further emphasized the safety considerations and Altoona Testing (Federal Transit Administration's Model Bus Testing Program) done on school buses

6. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, March 15, 2019 at noon.

Adjournment

The meeting adjourned at 12:46 p.m.

Attachment

Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT TECHNOLOGY COMMITTEE MEETING Attendance Record – February 15, 2019

Council Member Joe Buscaino (videoconference) SCAQMD Board Member
Supervisor Janice Hahn (videoconference)..... SCAQMD Board Member
Mayor Judith Mitchell SCAQMD Board Member
Supervisor V. Manuel Perez (videoconference) SCAQMD Board Member
Council Member Dwight Robinson SCAQMD Board Member

Mark AbramowitzBoard Consultant (Lyou)
Jacob HaikBoard Consultant (Buscaino)
Marisa PerezBoard Consultant (Mitchell)
Andrew Silva.....Board Consultant (Rutherford)

Brandon Bluhm A-Z Bus
John Landherr A-Z Bus
Susan Stark Marathon Petroleum
Tammy Yamasaki..... Southern California Edison
Md. Shafiqul Alam Veolia
Bridget McCann Western States Petroleum Association

Derrick Alatorre SCAQMD Staff
Naveen Berry..... SCAQMD Staff
Philip Crabbe SCAQMD Staff
Joseph Impullitti SCAQMD Staff
Pat Krayser SCAQMD Staff
Patricia Kwon SCAQMD Staff
Matt Miyasato..... SCAQMD Staff
Wayne Nastri SCAQMD Staff
Veronica Sosa..... SCAQMD Staff
Veera Tyagi SCAQMD Staff
Alejandra Vega..... SCAQMD Staff
Donna Vernon SCAQMD Staff
Vicki White SCAQMD Staff
Paul Wright..... SCAQMD Staff

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 28

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on February 21, 2019. The next meeting is scheduled for Thursday, March 21, 2019, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit
SCAQMD Representative to MSRC

MMM:NB:psc

Proposals

At its February 21, 2019 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

FYs 2012-14 Work Program

As part of its FYs 2012-14 Local Government Match Program, the MSRC awarded the County of Los Angeles \$104,400 to install publicly accessible charging stations. The County's agreement for operation of charging stations was expiring and needed to be re-bid, delaying progress on the project. The County requested an extension, but was not able to return the modification documents in time and the contract to effectuate the project lapsed on January 5, 2019. Shortly thereafter, the County submitted a request to complete the project.

The MSRC considered and approved a twelve-month replacement contract in the amount of \$104,400 as part of the FYs 2012-14 Work Program.

Also as part of its FYs 2012-14 Local Government Match Program, the MSRC awarded the County of Los Angeles \$150,000 to complete improvements to the San Gabriel River Bike Trail where it passes under the Interstate 10 freeway. Subsequently the County indicated that delays associated with obtaining local agency encroachment permits, and associated agency-requested design revisions, had delayed the project. The County requested an extension, but was not able to return the modification documents in time and the contract to effectuate the project lapsed on January 13, 2019.

The MSRC considered and approved a seven-month replacement contract in the amount of \$150,000 as part of the FYs 2012-14 Work Program.

FYs 18-21 Work Program

The MSRC considered three primary options for a large-scale incentive program: 1) a Regional Goods Movement Clean Corridor, of which the key elements would be zero and near-zero cargo movement between the ports and warehouse distribution centers in the Inland Empire, demonstration of emerging zero emission freight technologies and expansion of commercially available near-zero natural gas technologies, including both vehicles and infrastructure and involving multiple project partners – ports, regulatory agencies, licensed motor carriers, distribution centers, infrastructure providers, and the MSRC outreach coordinator; 2) an “EV Ready” Electric School Bus Program of which the goal would be to prepare school districts for electric school buses, with a focus on education and infrastructure but also the potential to include electric school bus demonstrations, and involving multiple project partners – school districts, technology providers, and the MSRC outreach coordinator; and 3) an “EV Ready” Communities Program of which the key elements would be education, infrastructure, leveraging other EVSE funding streams, and planning efforts and involving multiple project partners – local governments, technology providers, and the MSRC outreach coordinator. Based upon the potential cost-effectiveness and high degree of support for SCAQMD’s Air Quality Management Plan, the consensus was to initiate pursuit of a large-scale regional program focused on Goods Movement.

Research and Outreach

The MSRC authorized the issuance of a \$9,850 Task Order to the MSRC’s outreach coordinator, Better World Group Advisors (BWGA), to 1) assess other funding providers’ programs related to Goods Movement, and 2) develop an initial outreach plan for further coordination with agency representatives and other policymakers. The BWGA contract has an unallocated balance sufficient to fund the Task Order.

Major Event Center Transportation

The MSRC received an update on the development of a follow-on Major Event Center Program. Although a solicitation has not yet been finalized, the MSRC authorized Los Angeles Metropolitan Transportation Authority (Metro) to submit an application for consideration by the MSRC at their March meeting, under the condition that Metro agrees to abide by all recommendations resulting from the MSRC-TAC process and they agree to potential negotiations to revise their proposed project prior to contract execution.

Contract Modification Requests

The MSRC considered three contract modification requests and took the following actions:

1. For County of Los Angeles, Contract # ML14030, which provides \$425,000 for bicycle racks, outreach and education, 4-month term extension;

2. For City of Moreno Valley, Contract #ML16041, which provides \$20,000 to install EV charging stations, 18-month term extension; and
3. For the City of Paramount, Contract #ML18053, which provides \$72,580 to install EV charging stations, a reduction in the number of stations to be installed from five to three, of which all three would now be publicly accessible, with a corresponding contract value reduction from \$72,580 to \$64,675.

Received and Approved Final Reports

The MSRC received and unanimously approved two final reports this month as follows:

1. San Bernardino County Transportation Authority, #MS16092, which provided \$242,937 to implement a series of “open streets” events.
2. SCRRA (Metrolink), MS#18016, which provided \$87,764 for special train service to Auto Club Speedway.

Contracts Administrator’s Report

The MSRC’s AB 2766 Contracts Administrator provides a written status report on all open contracts from FY 2004-05 through the present. The Contracts Administrator’s Report for January 4 through January 30, 2019 is attached (*Attachment 1*) for your information.

Attachment

Attachment 1 – January 4 through January 30, 2019 Contracts Administrator’s Report

MSRC Agenda Item No. 3

DATE: February 21, 2019

FROM: Cynthia Ravenstein

SUBJECT: AB 2766 Contracts Administrator's Report

SYNOPSIS: This report covers key issues addressed by MSRC staff, status of open contracts, and administrative scope changes from January 4, 2019 to January 30, 2019.

RECOMMENDATION: Receive and file report

WORK PROGRAM IMPACT: None

Contract Execution Status

2016-18 Work Program

On July 8, 2016, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On October 7, 2016, the SCAQMD Governing Board approved three awards under the Event Center Transportation Program and one award for a Regional Active Transportation Partnership Program. These contracts are executed.

On January 6, 2017, the SCAQMD Governing Board approved an award for development, hosting and maintenance of a new MSRC website. This contract is executed.

On April 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On June 2, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On July 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On September 1, 2017, the SCAQMD Governing Board approved one award under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are executed.

On October 6, 2017, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are executed.

On December 1, 2017, the SCAQMD Governing Board approved sole source awards for a Hydrogen Infrastructure Partnership Program, for a Southern California Future Communities Partnership Program, and for electric vehicle charging infrastructure planning analysis. These contracts are executed. The MSRC has replaced the award to the California Energy Commission with a Program Opportunity Notice for the Hydrogen Infrastructure Partnership Program.

On February 2, 2018, the SCAQMD Governing Board approved one award under the Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, four awards under the Local Government Partnership Program, and two awards under the County Transportation Commission Partnership Program. These contracts are with SCAQMD Board Chair for signature or executed.

On March 2, 2018, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, and one award under the Local Government Partnership Program. These contracts are executed.

On April 6, 2018, the SCAQMD Governing Board approved one award under the Natural Gas Infrastructure Program and eight awards under the Local Government Partnership Program. These contracts are with the SCAQMD Board Chair for signature or executed.

On May 4, 2018, the SCAQMD Governing Board approved twenty-seven awards under the Local Government Partnership Program and one award under the County Transportation Commission Partnership Program. These contracts are with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On June 1, 2018, the SCAQMD Governing Board approved six awards under the Local Government Partnership Program, one award under the Natural Gas Infrastructure Program, and one award under the County Transportation Commission Partnership Program. These contracts are with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On July 6, 2018, the SCAQMD Governing Board approved nine awards under the Local Government Partnership Program. These contracts are with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On September 7, 2018, the SCAQMD Governing Board approved nineteen awards under the Local Government Partnership Program, three awards under the County Transportation Commission Partnership Program, one award under the Major Event Center Transportation Program, and twenty awards under the Natural Gas Infrastructure Program. These contracts are under development, with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On October 5, 2018, the SCAQMD Governing Board approved forty-eight awards under the Local Government Partnership Program and one award under the Hydrogen Infrastructure

Program. These contracts are under development, undergoing internal review, with the prospective contractor for signature, or with the SCAQMD Board Chair for signature.

On November 2, 2018, the SCAQMD Governing Board approved two awards under the Local Government Partnership Program. These contracts are with the prospective contractor for signature.

Work Program Status

Contract Status Reports for work program years with open and/or pending contracts are attached.

FY 2004-05 Work Program Contracts

One contract from this work program year is open.

FY 2004-05 Invoices Paid

No invoices were paid during this period.

FY 2007-08 Work Program Contracts

3 contracts from this work program year are open; and 2 are in “Open/Complete” status.

FY 2007-08 Invoices Paid

No invoices were paid during this period.

FY 2008-09 Work Program Contracts

3 contracts from this work program year are in “Open/Complete” status. One contract closed during this period: City of Beverly Hills, Contract #ML09033 – Purchase 10 Heavy-Duty CNG Vehicles and Install CNG Station.

FY 2008-09 Invoices Paid

No invoices were paid during this period.

FY 2010-11 Work Program Contracts

3 contracts from this work program year are open; and 26 are in “Open/Complete” status. One contract closed during this period: City of Los Angeles, Bureau of Sanitation, Contract #MS11033 – Purchase 36 Heavy-Duty LNG Vehicles.

FY 2010-11 Invoices Paid

One invoice in the amount of \$2,426.98 was paid during this period.

FY 2011-12 Work Program Contracts

8 contracts from this work program year are open, and 26 are in “Open/Complete” status. 4 contracts closed during this period: Dy-Dee Service of Pasadena, Contract #MS12028 – Purchase Two Medium-Duty and One Medium-Heavy-Duty Vehicles; Fox Transportation, Contract #MS12032 – Purchase 20 Medium-Heavy-Duty Vehicles; Krisda Inc., Contract #MS12058 – Repower One Heavy-Duty Off-Road Vehicles; and Transit Systems Unlimited, Contract #MS12071 – Expand Existing CNG Station.

FY 2011-12 Invoices Paid

No invoices were paid during this period.

FYs 2012-14 Work Program Contracts

28 contracts from this work program year are open, and 25 are in “Open/Complete” status. One replacement contract is also pending execution.

FYs 2012-14 Invoices Paid

2 invoices totaling \$504,385.24 were paid during this period.

FYs 2014-16 Work Program Contracts

62 contracts from this work program year are open, and 19 are in “Open/Complete” status. One replacement contract is pending execution. One original contract is still pending execution: the City of Lawndale has committed to execute their contract for expansion of existing CNG infrastructure by February. One contract closed during this period: City of Brea, Contract #ML16036 – Install Class I Bikeway.

FYs 2014-16 Invoices Paid

6 invoices totaling \$270,099.20 were paid during this period.

FYs 2016-18 Work Program Contracts

68 contracts from this work program year are open.

FYs 2016-18 Invoices Paid

One invoice in the amount of \$621.25 was paid during this period.

Administrative Scope Changes

Two administrative scope changes were initiated during the period of January 3 to 30, 2019:

- City of Cathedral City, Contract #ML16006 (Purchase Heavy-Duty CNG Vehicle and Implement Bicycle Education and Outreach) – Eliminate vehicle tasks and funding, with a corresponding value decrease from \$55,000 to \$25,000
- City of Fountain Valley, Contract #ML16009 (Install EV Charging Stations) – Three-month no-cost term extension

Attachments

- FY 2004-05 through FYs 2016-18 (except FY 2005-06, 2006-07 and FY 2009-10) Contract Status Reports



FYs 2004-05 Through 2016-18 AB2766 Contract Status Report

2/14/2019

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2004-2005 Contracts									
Open Contracts									
ML05014	Los Angeles County Department of P	5/21/2007	11/20/2008	12/20/2018	\$204,221.00	\$204,221.00	Traffic Signal Synchronization	\$0.00	No
Total: 1									
Declined/Cancelled Contracts									
ML05005	City of Highland				\$20,000.00	\$0.00	2 Medium Duty CNG Vehicles	\$20,000.00	No
ML05008	Los Angeles County Department of P				\$140,000.00	\$0.00	7 Heavy Duty LPG Street Sweepers	\$140,000.00	No
ML05010	Los Angeles County Department of P				\$20,000.00	\$0.00	1 Heavy Duty CNG Bus	\$20,000.00	No
MS05030	City of Inglewood				\$31,662.00	\$0.00	2 CNG Street Sweepers	\$31,662.00	No
MS05032	H&C Disposal				\$34,068.00	\$0.00	2 CNG Waste Haulers	\$34,068.00	No
MS05044	City of Colton				\$78,720.00	\$0.00	CNG Station Upgrade	\$78,720.00	No
Total: 6									
Closed Contracts									
ML05006	City of Colton Public Works	7/27/2005	7/26/2006		\$30,000.00	\$30,000.00	3 Medium Duty CNG Vehicles	\$0.00	Yes
ML05011	Los Angeles County Department of P	8/10/2006	12/9/2007	6/9/2008	\$52,409.00	\$51,048.46	3 Heavy Duty LPG Shuttle Vans	\$1,360.54	Yes
ML05013	Los Angeles County Department of P	1/5/2007	7/4/2008	1/4/2013	\$313,000.00	\$313,000.00	Traffic Signal Synchronization	\$0.00	Yes
ML05015	City of Lawndale	7/27/2005	7/26/2006		\$10,000.00	\$10,000.00	1 Medium Duty CNG Vehicle	\$0.00	Yes
ML05016	City of Santa Monica	9/23/2005	9/22/2006	9/22/2007	\$350,000.00	\$350,000.00	6 MD CNG Vehicles, 1 LPG Sweep, 13 CNG	\$0.00	Yes
ML05017	City of Signal Hill	1/16/2006	7/15/2007		\$126,000.00	\$126,000.00	Traffic Signal Synchronization	\$0.00	Yes
ML05018	City of San Bernardino	4/19/2005	4/18/2006		\$40,000.00	\$40,000.00	4 M.D. CNG Vehicles	\$0.00	Yes
ML05019	City of Lakewood	5/6/2005	5/5/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05020	City of Pomona	6/24/2005	6/23/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05021	City of Whittier	7/7/2005	7/6/2006	4/6/2008	\$100,000.00	\$80,000.00	Sweeper, Aerial Truck, & 3 Refuse Trucks	\$20,000.00	Yes
ML05022	City of Claremont	9/23/2005	9/22/2006		\$20,000.00	\$20,000.00	2 M.D. CNG Vehicles	\$0.00	Yes
ML05024	City of Cerritos	4/18/2005	3/17/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05025	City of Malibu	5/6/2005	3/5/2006		\$10,000.00	\$10,000.00	1 Medium-Duty CNG Vehicle	\$0.00	Yes
ML05026	City of Inglewood	1/6/2006	1/5/2007	2/5/2009	\$60,000.00	\$60,000.00	2 CNG Transit Buses, 1 CNG Pothole Patch	\$0.00	Yes
ML05027	City of Beaumont	2/23/2006	4/22/2007	6/22/2010	\$20,000.00	\$20,000.00	1 H.D. CNG Bus	\$0.00	Yes
ML05028	City of Anaheim	9/8/2006	9/7/2007	5/7/2008	\$85,331.00	\$85,331.00	Traffic signal coordination & synchronization	\$0.00	Yes
ML05029	Los Angeles World Airports	5/5/2006	9/4/2007		\$140,000.00	\$140,000.00	Seven CNG Buses	\$0.00	Yes
ML05071	City of La Canada Flintridge	1/30/2009	1/29/2011		\$20,000.00	\$20,000.00	1 CNG Bus	\$0.00	Yes
ML05072	Los Angeles County Department of P	8/24/2009	5/23/2010	1/23/2011	\$349,000.00	\$349,000.00	Traffic Signal Synchronization (LADOT)	\$0.00	Yes
MS05001	A-Z Bus Sales, Inc.	2/4/2005	12/31/2005	12/31/2006	\$1,385,000.00	\$1,385,000.00	CNG School Bus Buydown	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS05002	California Bus Sales	2/4/2005	12/31/2005	12/31/2006	\$1,800,000.00	\$1,800,000.00	CNG School Bus Buydown	\$0.00	Yes
MS05003	BusWest	1/28/2005	12/31/2005	12/31/2006	\$2,100,000.00	\$1,620,000.00	CNG School Bus Buydown	\$480,000.00	Yes
MS05004	Johnson/Ukropina Creative Marketin	11/27/2004	1/18/2006	4/18/2006	\$1,000,000.00	\$994,612.56	Implement "Rideshare Thursday" Campaign	\$5,387.44	Yes
MS05031	City of Ontario, Housing & Municipal	7/22/2005	3/21/2007		\$191,268.00	\$191,268.00	11 CNG Waste Haulers	\$0.00	Yes
MS05033	Waste Management of the Desert	9/26/2005	5/25/2007		\$202,900.00	\$202,900.00	10 CNG Waste Haulers	\$0.00	Yes
MS05034	Sukut Equipment, Inc.	9/9/2005	5/8/2007		\$1,151,136.00	\$1,151,136.00	Repower 12 Scrapers	\$0.00	Yes
MS05035	Varner Construction Inc.	11/28/2005	4/27/2007	2/27/2008	\$334,624.00	\$334,624.00	Repower 5 Off-Road H.D. Vehicles	\$0.00	Yes
MS05036	Camarillo Engineering	8/18/2005	1/17/2007		\$1,167,276.00	\$1,167,276.00	Repower 12 Scrapers	\$0.00	Yes
MS05037	Road Builders, Inc.	11/21/2005	4/20/2007	6/20/2008	\$229,302.00	\$229,302.00	Repower 2 Scrapers	\$0.00	Yes
MS05038	SunLine Transit Agency	3/30/2006	9/29/2007		\$135,000.00	\$135,000.00	15 CNG Buses	\$0.00	Yes
MS05039	Los Angeles County MTA	4/28/2006	4/27/2008		\$405,000.00	\$405,000.00	75 CNG Buses	\$0.00	Yes
MS05040	Orange County Transportation Autho	3/23/2006	12/22/2007	6/22/2008	\$200,000.00	\$200,000.00	25 CNG Buses	\$0.00	Yes
MS05041	The Regents of the University of Cali	9/5/2006	8/4/2007	9/4/2008	\$15,921.00	\$15,921.00	CNG Station Upgrade	\$0.00	Yes
MS05042	City of Ontario, Housing & Municipal	11/21/2005	9/20/2006	7/20/2007	\$117,832.00	\$74,531.27	CNG Station Upgrade	\$43,300.73	Yes
MS05043	Whittier Union High School District	9/23/2005	7/22/2006		\$15,921.00	\$15,921.00	CNG Station Upgrade	\$0.00	Yes
MS05045	City of Covina	9/9/2005	7/8/2006		\$10,000.00	\$7,435.61	CNG Station Upgrade	\$2,564.39	Yes
MS05046	City of Inglewood	1/6/2006	5/5/2007		\$139,150.00	\$56,150.27	CNG Station Upgrade	\$82,999.73	Yes
MS05047	Orange County Transportation Autho	10/20/2005	10/19/2006	1/19/2007	\$75,563.00	\$75,563.00	CNG Station Upgrade	\$0.00	Yes
MS05048	City of Santa Monica	7/24/2006	11/23/2007		\$150,000.00	\$150,000.00	CNG Station Upgrade	\$0.00	Yes
MS05049	Omnitrans	9/23/2005	2/22/2007		\$25,000.00	\$7,250.00	CNG Station Upgrade	\$17,750.00	Yes
MS05050	Gateway Cities Council of Governme	12/21/2005	4/20/2010		\$1,464,839.00	\$1,464,838.12	Truck Fleet Modernization Program	\$0.88	Yes
MS05051	Jagur Tractor	1/16/2006	4/15/2007	10/15/2007	\$660,928.00	\$660,928.00	Repower 6 Scrapers	\$0.00	Yes
MS05052	Caufield Equipment, Inc.	8/3/2005	1/2/2007		\$478,000.00	\$478,000.00	Repower 4 Scrapers	\$0.00	Yes
MS05070	Haaland Internet Productions (HIP D	6/24/2005	5/31/2007	11/30/2011	\$100,715.00	\$92,458.24	Design, Host & Maintain MSRC Website	\$8,256.76	Yes

Total: 44

Closed/Incomplete Contracts

ML05007	Los Angeles County Dept of Beache	6/23/2006	6/22/2007	12/22/2007	\$50,000.00	\$0.00	5 Medium Duty CNG Vehicles	\$50,000.00	No
ML05009	Los Angeles County Department of P	6/22/2006	12/21/2007	9/30/2011	\$56,666.00	\$0.00	2 Propane Refueling Stations	\$56,666.00	No
ML05012	Los Angeles County Department of P	11/10/2006	5/9/2008	1/9/2009	\$349,000.00	\$0.00	Traffic Signal Synchronization (LADOT)	\$349,000.00	No
ML05023	City of La Canada Flintridge	3/30/2005	2/28/2006	8/28/2008	\$20,000.00	\$0.00	1 CNG Bus	\$20,000.00	No

Total: 4

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2006-2007 Contracts

Declined/Cancelled Contracts

ML07031	City of Santa Monica				\$180,000.00	\$0.00	Upgrade N.G. Station to Add Hythane	\$180,000.00	No
ML07032	City of Huntington Beach Public Wor				\$25,000.00	\$0.00	One H.D. CNG Vehicle	\$25,000.00	No
ML07035	City of Los Angeles, General Service				\$350,000.00	\$0.00	New CNG Refueling Station/Southeast Yard	\$350,000.00	No
ML07038	City of Palos Verdes Estates				\$25,000.00	\$0.00	One H.D. LPG Vehicle	\$25,000.00	No
MS07010	Palos Verdes Peninsula Transit Auth				\$80,000.00	\$0.00	Repower 4 Transit Buses	\$80,000.00	No
MS07014	Clean Energy Fuels Corp.				\$350,000.00	\$0.00	New L/CNG Station - SERRF	\$350,000.00	No
MS07015	Baldwin Park Unified School District				\$57,500.00	\$0.00	New CNG Station	\$57,500.00	No
MS07016	County of Riverside Fleet Services D				\$36,359.00	\$0.00	New CNG Station - Rubidoux	\$36,359.00	No
MS07017	County of Riverside Fleet Services D				\$33,829.00	\$0.00	New CNG Station - Indio	\$33,829.00	No
MS07018	City of Cathedral City				\$350,000.00	\$0.00	New CNG Station	\$350,000.00	No
MS07021	City of Riverside				\$350,000.00	\$0.00	New CNG Station	\$350,000.00	No
MS07050	Southern California Disposal Co.				\$320,000.00	\$0.00	Ten Nat. Gas Refuse Trucks	\$320,000.00	No
MS07062	Caltrans Division of Equipment				\$1,081,818.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$1,081,818.00	No
MS07065	ECCO Equipment Corp.				\$174,525.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$174,525.00	No
MS07067	Recycled Materials Company of Calif				\$99,900.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$99,900.00	No
MS07069	City of Burbank	5/9/2008	3/8/2010	9/8/2011	\$8,895.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$8,895.00	No
MS07074	Albert W. Davies, Inc.	1/25/2008	11/24/2009		\$39,200.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$39,200.00	No
MS07081	Clean Diesel Technologies, Inc.				\$240,347.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$240,347.00	No
MS07082	DCL International, Inc.				\$153,010.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$153,010.00	No
MS07083	Dinex Exhausts, Inc.				\$52,381.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$52,381.00	No
MS07084	Donaldson Company, Inc.				\$42,416.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$42,416.00	No
MS07085	Engine Control Systems Limited				\$155,746.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$155,746.00	No
MS07086	Huss, LLC				\$84,871.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$84,871.00	No
MS07087	Mann+Hummel GmbH				\$189,361.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$189,361.00	No
MS07088	Nett Technologies, Inc.				\$118,760.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$118,760.00	No
MS07089	Rypos, Inc.				\$68,055.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$68,055.00	No
MS07090	Sud-Chemie				\$27,345.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$27,345.00	No

Total: 27

Closed Contracts

ML07023	City of Riverside	6/20/2008	10/19/2014	7/19/2016	\$462,500.00	\$461,476.42	CNG Station Expansion/Purch. 14 H.D. Vehi	\$1,023.58	Yes
ML07024	City of Garden Grove	3/7/2008	9/6/2014	7/6/2016	\$75,000.00	\$75,000.00	Three H.D. CNG Vehicles	\$0.00	Yes
ML07025	City of San Bernardino	8/12/2008	7/11/2010		\$350,000.00	\$350,000.00	Maintenance Facility Modifications	\$0.00	Yes
ML07026	City of South Pasadena	6/13/2008	6/12/2014		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
ML07027	Los Angeles World Airports	6/3/2008	7/2/2014		\$25,000.00	\$25,000.00	One H.D. LNG Vehicle	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML07028	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Hollywood Yard	\$0.00	Yes
ML07029	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Venice Yard	\$0.00	Yes
ML07030	County of San Bernardino Public Wo	7/11/2008	9/10/2015		\$200,000.00	\$200,000.00	8 Natural Gas H.D. Vehicles	\$0.00	Yes
ML07033	City of La Habra	5/21/2008	6/20/2014	11/30/2013	\$25,000.00	\$25,000.00	One H.D. Nat Gas Vehicle	\$0.00	Yes
ML07034	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Van Nuys Yard	\$0.00	Yes
ML07036	City of Alhambra	1/23/2009	2/22/2015		\$50,000.00	\$50,000.00	2 H.D. CNG Vehicles	\$0.00	Yes
ML07037	City of Los Angeles, General Service	10/8/2008	10/7/2015		\$255,222.00	\$255,222.00	Upgrade LNG/LCNG Station/East Valley Yar	\$0.00	Yes
ML07039	City of Baldwin Park	6/6/2008	6/5/2014	8/5/2015	\$50,000.00	\$50,000.00	Two N.G. H.D. Vehicles	\$0.00	Yes
ML07040	City of Moreno Valley	6/3/2008	9/2/2014		\$25,000.00	\$25,000.00	One Heavy-Duty CNG Vehicle	\$0.00	Yes
ML07041	City of La Quinta	6/6/2008	6/5/2014		\$25,000.00	\$25,000.00	One CNG Street Sweeper	\$0.00	Yes
ML07042	City of La Quinta	8/15/2008	9/14/2010		\$100,000.00	\$100,000.00	Street Sweeping Operations	\$0.00	Yes
ML07043	City of Redondo Beach	9/28/2008	7/27/2014	10/27/2016	\$125,000.00	\$125,000.00	Five H.D. CNG Transit Vehicles	\$0.00	Yes
ML07044	City of Santa Monica	9/8/2008	3/7/2015	3/7/2017	\$600,000.00	\$600,000.00	24 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML07046	City of Culver City Transportation De	5/2/2008	5/1/2014		\$25,000.00	\$25,000.00	One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML07047	City of Cathedral City	6/16/2008	9/15/2014	3/15/2015	\$225,000.00	\$225,000.00	Two H.D. Nat. Gas Vehicles/New CNG Fueli	\$0.00	Yes
ML07048	City of Cathedral City	9/19/2008	10/18/2010		\$100,000.00	\$84,972.45	Street Sweeping Operations	\$15,027.55	Yes
MS07001	A-Z Bus Sales, Inc.	12/28/2006	12/31/2007	2/29/2008	\$1,920,000.00	\$1,380,000.00	CNG School Bus Buydown	\$540,000.00	Yes
MS07002	BusWest	1/19/2007	12/31/2007	3/31/2008	\$840,000.00	\$840,000.00	CNG School Bus Buydown	\$0.00	Yes
MS07003	Westport Fuel Systems, Inc.	11/2/2007	12/31/2011	6/30/2013	\$1,500,000.00	\$1,499,990.00	Advanced Nat. Gas Engine Incentive Progra	\$10.00	Yes
MS07005	S-W Compressors	3/17/2008	3/16/2010		\$60,000.00	\$7,500.00	Mountain CNG School Bus Demo Program-	\$52,500.00	Yes
MS07006	Coachella Valley Association of Gov	2/28/2008	10/27/2008		\$400,000.00	\$400,000.00	Coachella Valley PM10 Reduction Street Sw	\$0.00	Yes
MS07007	Los Angeles World Airports	5/2/2008	11/1/2014		\$420,000.00	\$420,000.00	Purchase CNG 21 Transit Buses	\$0.00	Yes
MS07008	City of Los Angeles, Department of T	9/18/2009	5/17/2020	9/17/2017	\$1,900,000.00	\$1,900,000.00	Purchase 95 Transit Buses	\$0.00	Yes
MS07009	Orange County Transportation Autho	5/14/2008	4/13/2016		\$800,000.00	\$800,000.00	Purchase 40 Transit Buses	\$0.00	Yes
MS07011	L A Service Authority for Freeway E	3/12/2010	5/31/2011	9/30/2011	\$700,000.00	\$700,000.00	"511" Commuter Services Campaign	\$0.00	Yes
MS07012	City of Los Angeles, General Service	6/13/2008	6/12/2009	6/12/2010	\$50,000.00	\$50,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS07013	Rainbow Disposal Company, Inc.	1/25/2008	3/24/2014	9/24/2014	\$350,000.00	\$350,000.00	New High-Volume CNG Station	\$0.00	Yes
MS07019	City of Cathedral City	1/9/2009	6/8/2010		\$32,500.00	\$32,500.00	Maintenance Facility Modifications	\$0.00	Yes
MS07020	Avery Petroleum	5/20/2009	7/19/2015		\$250,000.00	\$250,000.00	New CNG Station	\$0.00	Yes
MS07049	Palm Springs Disposal Services	10/23/2008	11/22/2014	9/22/2016	\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07051	City of San Bernardino	8/12/2008	12/11/2014		\$480,000.00	\$480,000.00	15 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07052	City of Redlands	7/30/2008	11/29/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks	\$0.00	Yes
MS07053	City of Claremont	7/31/2008	12/30/2014		\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07054	Republic Services, Inc.	3/7/2008	9/6/2014	9/6/2016	\$1,280,000.00	\$1,280,000.00	40 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07055	City of Culver City Transportation De	7/8/2008	9/7/2014		\$192,000.00	\$192,000.00	Six Nat. Gas Refuse Trucks	\$0.00	Yes
MS07056	City of Whittier	9/5/2008	3/4/2015		\$32,000.00	\$32,000.00	One Nat. Gas Refuse Trucks	\$0.00	Yes
MS07057	CR&R, Inc.	7/31/2008	8/30/2014	6/30/2015	\$896,000.00	\$896,000.00	28 Nat. Gas Refuse Trucks	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS07058	Better World Group Advisors	11/17/2007	11/16/2009	11/16/2011	\$247,690.00	\$201,946.21	MSRC Programmatic Outreach Services	\$45,743.79	Yes
MS07059	County Sanitation Districts of L.A. Co	9/5/2008	9/4/2010	7/14/2012	\$231,500.00	\$231,500.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07060	Community Recycling & Resource R	3/7/2008	1/6/2010	7/6/2011	\$177,460.00	\$98,471.00	Off-Road Diesel Equipment Retrofit Program	\$78,989.00	Yes
MS07061	City of Los Angeles, Department of	10/31/2008	8/30/2010	2/28/2013	\$40,626.00	\$40,626.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07063	Shimmick Construction Company, In	4/26/2008	2/25/2010	8/25/2011	\$80,800.00	\$11,956.37	Off-Road Diesel Equipment Retrofit Program	\$68,843.63	Yes
MS07064	Altfillisch Contractors, Inc.	9/19/2008	7/18/2010	1/18/2011	\$160,000.00	\$155,667.14	Off-Road Diesel Equipment Retrofit Program	\$4,332.86	Yes
MS07068	Sukut Equipment Inc.	1/23/2009	11/22/2010	5/22/2012	\$26,900.00	\$26,900.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07070	Griffith Company	4/30/2008	2/28/2010	8/28/2012	\$168,434.00	\$125,504.00	Off-Road Diesel Equipment Retrofit Program	\$42,930.00	Yes
MS07071	Tiger 4 Equipment Leasing	9/19/2008	7/18/2010	1/18/2013	\$210,937.00	\$108,808.97	Off-Road Diesel Equipment Retrofit Program	\$102,128.03	Yes
MS07072	City of Culver City Transportation De	4/4/2008	2/3/2010	8/3/2011	\$72,865.00	\$72,865.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07075	Dan Copp Crushing	9/17/2008	7/16/2010	1/16/2012	\$73,600.00	\$40,200.00	Off-Road Diesel Equipment Retrofit Program	\$33,400.00	Yes
MS07076	Reed Thomas Company, Inc.	8/15/2008	6/14/2010	3/14/2012	\$339,073.00	\$100,540.00	Off-Road Diesel Equipment Retrofit Program	\$238,533.00	Yes
MS07077	USA Waste of California, Inc.	5/1/2009	12/31/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks (Santa Ana)	\$0.00	Yes
MS07078	USA Waste of California, Inc.	5/1/2009	12/31/2014	12/31/2015	\$256,000.00	\$256,000.00	Eight Nat. Gas Refuse Trucks (Dewey's)	\$0.00	Yes
MS07079	Riverside County Transportation Co	1/30/2009	7/29/2013	12/31/2011	\$20,000.00	\$15,165.45	BikeMetro Website Migration	\$4,834.55	Yes
MS07080	City of Los Angeles Bureau of Sanita	10/31/2008	8/30/2010	8/28/2016	\$63,192.00	\$62,692.00	Off-Road Diesel Equipment Retrofit Program	\$500.00	No
MS07091	BusWest	10/16/2009	3/15/2010		\$33,660.00	\$33,660.00	Provide Lease for 2 CNG School Buses	\$0.00	Yes
MS07092	Riverside County Transportation Co	9/1/2010	10/31/2011		\$350,000.00	\$350,000.00	"511" Commuter Services Campaign	\$0.00	Yes

Total: 60

Closed/Incomplete Contracts

ML07045	City of Inglewood	2/6/2009	4/5/2015		\$75,000.00	\$25,000.00	3 H.D. Nat. Gas Vehicles	\$50,000.00	No
MS07004	BusWest	7/2/2007	7/1/2009		\$90,928.00	\$68,196.00	Provide Lease for 2 CNG School Buses	\$22,732.00	No
MS07066	Skanska USA Civil West California D	6/28/2008	4/27/2010	10/27/2010	\$111,700.00	\$36,128.19	Off-Road Diesel Equipment Retrofit Program	\$75,571.81	No
MS07073	PEED Equipment Co.	10/31/2008	8/30/2010		\$11,600.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$11,600.00	No

Total: 4

Open/Complete Contracts

MS07022	CSULA Hydrogen Station and Resea	10/30/2009	12/29/2015	10/29/2019	\$250,000.00	\$250,000.00	New Hydrogen Fueling Station	\$0.00	Yes
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Total: 1

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2007-2008 Contracts

Open Contracts

ML08028	City of Santa Monica	9/11/2009	9/10/2016	5/10/2019	\$600,000.00	\$0.00	24 CNG Heavy-Duty Vehicles	\$600,000.00	No
MS08007	United Parcel Service West Region	12/10/2008	10/9/2014	4/9/2019	\$300,000.00	\$270,000.00	10 H.D. Nat. Gas Vehicles	\$30,000.00	Yes
MS08013	United Parcel Service West Region	12/10/2008	10/9/2014	3/9/2019	\$480,000.00	\$432,000.00	12 H.D. Nat. Gas Yard Tractors	\$48,000.00	No

Total: 3

Declined/Cancelled Contracts

ML08032	City of Irvine	5/1/2009	8/31/2010		\$9,000.00	\$0.00	36 Vehicles (Diagnostic)	\$9,000.00	No
ML08041	City of Los Angeles, Dept of Transpo	8/6/2010	7/5/2011	12/5/2011	\$8,800.00	\$0.00	73 Vehicles (Diagnostic)	\$8,800.00	No
ML08049	City of Cerritos	3/20/2009	1/19/2015	2/19/2017	\$25,000.00	\$0.00	1 CNG Heavy-Duty Vehicle	\$25,000.00	No
ML08051	City of Colton				\$75,000.00	\$0.00	3 CNG Heavy-Duty Vehicles	\$75,000.00	No
ML08080	City of Irvine	5/1/2009	5/31/2015		\$50,000.00	\$0.00	Two Heavy-Duty Nat. Gas Vehicles	\$50,000.00	No
MS08002	Orange County Transportation Autho				\$1,500,000.00	\$0.00	Big Rig Freeway Service Patrol	\$1,500,000.00	No
MS08008	Diversified Truck Rental & Leasing				\$300,000.00	\$0.00	10 H.D. Nat. Gas Vehicles	\$300,000.00	No
MS08010	Orange County Transportation Autho				\$10,000.00	\$0.00	20 H.D. Nat. Gas Vehicles	\$10,000.00	No
MS08011	Green Fleet Systems, LLC				\$10,000.00	\$0.00	30 H.D. Nat. Gas Vehicles	\$10,000.00	No
MS08052	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014	11/23/2015	\$100,000.00	\$0.00	New CNG Station - Fontana	\$100,000.00	No
MS08054	Clean Energy Fuels Corp.				\$400,000.00	\$0.00	New LNG Station - Fontana	\$400,000.00	No
MS08055	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$0.00	New LNG Station - Long Beach-Pier S	\$400,000.00	No
MS08059	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		\$100,000.00	\$0.00	New CNG Station - San Bernardino	\$100,000.00	No
MS08060	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		\$100,000.00	\$0.00	New CNG Station - Azusa	\$100,000.00	No
MS08062	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	\$400,000.00	\$0.00	New CNG Station - Rialto	\$400,000.00	No
MS08074	Fontana Unified School District	11/14/2008	12/13/2014		\$200,000.00	\$0.00	Expansion of Existing CNG station	\$200,000.00	No
MS08077	Hythane Company, LLC				\$144,000.00	\$0.00	Upgrade Station to Hythane	\$144,000.00	No

Total: 17

Closed Contracts

ML08023	City of Villa Park	11/7/2008	10/6/2012		\$6,500.00	\$5,102.50	Upgrade of Existing Refueling Facility	\$1,397.50	Yes
ML08024	City of Anaheim	7/9/2010	7/8/2017	1/8/2018	\$425,000.00	\$425,000.00	9 LPG Buses and 8 CNG Buses	\$0.00	Yes
ML08026	Los Angeles County Department of P	7/20/2009	7/19/2016		\$250,000.00	\$250,000.00	10 LPG Heavy-Duty Vehicles	\$0.00	Yes
ML08027	Los Angeles County Department of P	7/20/2009	1/19/2011	1/19/2012	\$6,901.00	\$5,124.00	34 Vehicles (Diagnostic)	\$1,777.00	Yes
ML08029	City of Gardena	3/19/2009	1/18/2015		\$25,000.00	\$25,000.00	1 Propane Heavy-Duty Vehicle	\$0.00	Yes
ML08030	City of Azusa	5/14/2010	3/13/2016		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	No
ML08031	City of Claremont	3/27/2009	3/26/2013	3/26/2015	\$97,500.00	\$97,500.00	Upgrade of Existing CNG Station, Purchase	\$0.00	Yes
ML08033	County of San Bernardino Public Wo	4/3/2009	2/2/2010		\$14,875.00	\$14,875.00	70 Vehicles (Diagnostic)	\$0.00	Yes
ML08034	County of San Bernardino Public Wo	3/27/2009	7/26/2015		\$150,000.00	\$150,000.00	8 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08035	City of La Verne	3/6/2009	11/5/2009		\$11,925.00	\$11,925.00	53 Vehicles (Diagnostic)	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML08036	City of South Pasadena	5/12/2009	7/11/2013		\$169,421.00	\$169,421.00	New CNG Station	\$0.00	Yes
ML08037	City of Glendale	5/20/2009	5/19/2015		\$325,000.00	\$325,000.00	13 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08038	Los Angeles Department of Water an	7/16/2010	7/15/2017		\$1,050,000.00	\$1,050,000.00	42 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08039	City of Rancho Palos Verdes	6/5/2009	8/4/2015		\$50,000.00	\$50,000.00	2 LPG Transit Buses	\$0.00	Yes
ML08042	City of Ontario, Housing & Municipal	5/1/2009	1/31/2016		\$175,000.00	\$175,000.00	7 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08044	City of Chino	3/19/2009	3/18/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08045	City of Santa Clarita	2/20/2009	6/19/2010		\$3,213.00	\$3,150.00	14 Vehicles (Diagnostic)	\$63.00	Yes
ML08046	City of Paramount	2/20/2009	2/19/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08047	City of Culver City Transportation De	5/12/2009	8/11/2015		\$150,000.00	\$150,000.00	6 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08048	City of Santa Clarita	2/20/2009	6/19/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08050	City of Laguna Beach Public Works	8/12/2009	4/11/2016	10/11/2016	\$75,000.00	\$75,000.00	3 LPG Trolleys	\$0.00	Yes
MS08001	Los Angeles County MTA	12/10/2010	6/9/2014		\$1,500,000.00	\$1,499,999.66	Big Rig Freeway Service Patrol	\$0.34	Yes
MS08003	A-Z Bus Sales, Inc.	5/2/2008	12/31/2008	2/28/2009	\$1,480,000.00	\$1,400,000.00	Alternative Fuel School Bus Incentive Progra	\$80,000.00	Yes
MS08004	BusWest	5/2/2008	12/31/2008		\$1,440,000.00	\$1,440,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS08005	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Azusa	\$0.00	Yes
MS08006	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Saugus	\$0.00	Yes
MS08009	Los Angeles World Airports	12/24/2008	12/23/2014		\$870,000.00	\$870,000.00	29 H.D. Nat. Gas Vehicles	\$0.00	Yes
MS08012	California Cartage Company, LLC	12/21/2009	10/20/2015	4/20/2016	\$480,000.00	\$480,000.00	12 H.D. Nat. Gas Yard Tractors	\$0.00	Yes
MS08014	City of San Bernardino	12/5/2008	6/4/2015		\$390,000.00	\$360,000.00	13 H.D. Nat. Gas Vehicles	\$30,000.00	Yes
MS08015	Yosemite Waters	5/12/2009	5/11/2015		\$180,000.00	\$117,813.60	11 H.D. Propane Vehicles	\$62,186.40	Yes
MS08016	TransVironmental Solutions, Inc.	1/23/2009	12/31/2010	9/30/2011	\$227,198.00	\$80,351.34	Rideshare 2 School Program	\$146,846.66	Yes
MS08017	Omnitrans	12/13/2008	12/12/2015	12/12/2016	\$900,000.00	\$900,000.00	30 CNG Buses	\$0.00	Yes
MS08018	Los Angeles County Department of P	8/7/2009	10/6/2016	4/6/2018	\$60,000.00	\$60,000.00	2 CNG Vehicles	\$0.00	Yes
MS08019	Enterprise Rent-A-Car Company of L	2/12/2010	7/11/2016		\$300,000.00	\$300,000.00	10 CNG Vehicles	\$0.00	Yes
MS08020	Ware Disposal Company, Inc.	11/25/2008	2/24/2016		\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08021	CalMet Services, Inc.	1/9/2009	1/8/2016	7/8/2016	\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08022	SunLine Transit Agency	12/18/2008	3/17/2015		\$311,625.00	\$311,625.00	15 CNG Buses	\$0.00	Yes
MS08053	City of Los Angeles, Bureau of Sanit	2/18/2009	12/17/2015		\$400,000.00	\$400,000.00	New LNG/CNG Station	\$0.00	Yes
MS08056	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New LNG Station - POLB-Anah. & I	\$0.00	Yes
MS08057	Orange County Transportation Autho	5/14/2009	7/13/2015		\$400,000.00	\$400,000.00	New CNG Station - Garden Grove	\$0.00	Yes
MS08058	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$400,000.00	New CNG Station - Ontario Airport	\$0.00	Yes
MS08061	Clean Energy Fuels Corp.	12/4/2009	3/3/2015		\$400,000.00	\$400,000.00	New CNG Station - L.A.-La Cienega	\$0.00	Yes
MS08063	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	\$400,000.00	\$400,000.00	New CNG Station - Moreno Valley	\$0.00	Yes
MS08064	Hemet Unified School District	1/9/2009	3/8/2015		\$75,000.00	\$75,000.00	Expansion of Existing Infrastructure	\$0.00	Yes
MS08065	Pupil Transportation Cooperative	11/20/2008	7/19/2014		\$10,500.00	\$10,500.00	Existing CNG Station Modifications	\$0.00	Yes
MS08066	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New CNG Station - Palm Spring Airport	\$0.00	Yes
MS08067	Trillium CNG	3/19/2009	6/18/2015	6/18/2016	\$311,600.00	\$254,330.00	New CNG Station	\$57,270.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS08069	Perris Union High School District	6/5/2009	8/4/2015	8/4/2016	\$225,000.00	\$225,000.00	New CNG Station	\$0.00	Yes
MS08070	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New CNG Station - Paramount	\$0.00	Yes
MS08071	ABC Unified School District	1/16/2009	1/15/2015		\$63,000.00	\$63,000.00	New CNG Station	\$0.00	Yes
MS08072	Clean Energy Fuels Corp.	12/4/2009	3/3/2015		\$400,000.00	\$354,243.38	New CNG Station - Burbank	\$45,756.62	Yes
MS08073	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New CNG Station - Norwalk	\$0.00	Yes
MS08075	Disneyland Resort	12/10/2008	2/1/2015		\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS08076	Azusa Unified School District	10/17/2008	11/16/2014	1/31/2017	\$172,500.00	\$172,500.00	New CNG station and maint. Fac. Modificati	\$0.00	Yes
MS08078	SunLine Transit Agency	12/10/2008	6/9/2015	2/9/2016	\$189,000.00	\$189,000.00	CNG Station Upgrade	\$0.00	Yes
MS09002	A-Z Bus Sales, Inc.	11/7/2008	12/31/2009	12/31/2010	\$2,520,000.00	\$2,460,000.00	Alternative Fuel School Bus Incentive Progra	\$60,000.00	Yes
MS09004	A-Z Bus Sales, Inc.	1/30/2009	3/31/2009		\$156,000.00	\$156,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS09047	BusWest	7/9/2010	12/31/2010	4/30/2011	\$480,000.00	\$480,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes

Total: 58

Closed/Incomplete Contracts

ML08025	Los Angeles County Department of P	10/30/2009	3/29/2011		\$75,000.00	\$0.00	150 Vehicles (Diagnostic)	\$75,000.00	No
MS08068	Regents of the University of Californi	11/5/2010	11/4/2017	11/4/2019	\$400,000.00	\$0.00	Hydrogen Station	\$400,000.00	No
MS08079	ABC Unified School District	1/16/2009	12/15/2009	12/15/2010	\$50,000.00	\$0.00	Maintenance Facility Modifications	\$50,000.00	No

Total: 3

Open/Complete Contracts

ML08040	City of Riverside	9/11/2009	9/10/2016	3/10/2019	\$455,500.00	\$455,500.00	16 CNG Vehicles, Expand CNG Station & M	\$0.00	Yes
ML08043	City of Desert Hot Springs	9/25/2009	3/24/2016	3/24/2021	\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes

Total: 2

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2008-2009 Contracts

Declined/Cancelled Contracts

ML09017	County of San Bernardino Public Wo	1/28/2010	7/27/2016		\$200,000.00	\$0.00	8 Nat. Gas Heavy-Duty Vehicles	\$200,000.00	No
ML09018	Los Angeles Department of Water an	7/16/2010	9/15/2012		\$850,000.00	\$0.00	Retrofit 85 Off-Road Vehicles w/DECS	\$850,000.00	No
ML09019	City of San Juan Capistrano Public	12/4/2009	11/3/2010		\$10,125.00	\$0.00	Remote Vehicle Diagnostics/45 Vehicles	\$10,125.00	No
ML09022	Los Angeles County Department of P				\$8,250.00	\$0.00	Remote Vehicle Diagnostics/15 Vehicles	\$8,250.00	No
ML09025	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	\$50,000.00	\$0.00	Remote Vehicle Diagnostics/85 Vehicles	\$50,000.00	No
ML09028	Riverside County Waste Manageme				\$140,000.00	\$0.00	Retrofit 7 Off-Road Vehicles w/DECS	\$140,000.00	No
ML09039	City of Inglewood				\$310,000.00	\$0.00	Purchase 12 H.D. CNG Vehicles and Remot	\$310,000.00	No
ML09040	City of Cathedral City				\$83,125.00	\$0.00	Purchase 3 H.D. CNG Vehicles and Remote	\$83,125.00	No
ML09044	City of San Dimas				\$425,000.00	\$0.00	Install CNG Station and Purchase 1 CNG S	\$425,000.00	No
ML09045	City of Orange				\$125,000.00	\$0.00	Purchase 5 CNG Sweepers	\$125,000.00	No
MS09003	FuelMaker Corporation				\$296,000.00	\$0.00	Home Refueling Apparatus Incentives	\$296,000.00	No

Total: 11

Closed Contracts

ML09007	City of Rancho Cucamonga	2/26/2010	4/25/2012		\$117,500.00	\$62,452.57	Maintenance Facility Modification	\$55,047.43	Yes
ML09008	City of Culver City Transportation De	1/19/2010	7/18/2016	7/18/2017	\$175,000.00	\$175,000.00	8 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09010	City of Palm Springs	1/8/2010	2/7/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09011	City of San Bernardino	2/19/2010	5/18/2016		\$250,000.00	\$250,000.00	10 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09012	City of Gardena	3/12/2010	11/11/2015		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09013	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$144,470.00	\$128,116.75	Traffic Signal Synchr./Moreno Valley	\$16,353.25	Yes
ML09014	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$113,030.00	\$108,495.94	Traffic Signal Synchr./Corona	\$4,534.06	Yes
ML09015	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$80,060.00	\$79,778.52	Traffic Signal Synchr./Co. of Riverside	\$281.48	Yes
ML09016	County of San Bernardino Public Wo	1/28/2010	3/27/2014		\$50,000.00	\$50,000.00	Install New CNG Station	\$0.00	Yes
ML09020	County of San Bernardino	8/16/2010	2/15/2012		\$49,770.00	\$49,770.00	Remote Vehicle Diagnostics/252 Vehicles	\$0.00	Yes
ML09021	City of Palm Desert	7/9/2010	3/8/2012		\$39,450.00	\$38,248.87	Traffic Signal Synchr./Rancho Mirage	\$1,201.13	Yes
ML09023	Los Angeles County Department of P	12/10/2010	12/9/2017		\$50,000.00	\$50,000.00	2 Heavy-Duty Alternative Fuel Transit Vehicl	\$0.00	Yes
ML09024	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
ML09027	Los Angeles County Department of P	7/23/2010	3/22/2012	6/22/2012	\$150,000.00	\$150,000.00	Freeway Detector Map Interface	\$0.00	Yes
ML09029	City of Whittier	11/6/2009	4/5/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09030	City of Los Angeles GSD/Fleet Servi	6/18/2010	6/17/2011		\$22,310.00	\$22,310.00	Remote Vehicle Diagnostics/107 Vehicles	\$0.00	Yes
ML09031	City of Los Angeles, Department of	10/29/2010	10/28/2017		\$825,000.00	\$825,000.00	33 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09032	Los Angeles World Airports	4/8/2011	4/7/2018		\$175,000.00	\$175,000.00	7 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09033	City of Beverly Hills	3/4/2011	5/3/2017	1/3/2019	\$550,000.00	\$550,000.00	10 Nat. Gas Heavy-Duty Vehicles & CNG St	\$0.00	No
ML09034	City of La Palma	11/25/2009	6/24/2015		\$25,000.00	\$25,000.00	1 LPG Heavy-Duty Vehicle	\$0.00	Yes
ML09035	City of Fullerton	6/17/2010	6/16/2017	6/16/2018	\$450,000.00	\$450,000.00	2 Heavy-Duty CNG Vehicles & Install CNG	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		\$50,000.00	\$50,000.00	Purchase Two CNG Sweepers	\$0.00	Yes
ML09038	City of Chino	9/27/2010	5/26/2017		\$250,000.00	\$250,000.00	Upgrade Existing CNG Station	\$0.00	Yes
ML09041	City of Los Angeles, Bureau of Sanit	10/1/2010	9/30/2017		\$875,000.00	\$875,000.00	Purchase 35 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML09042	Los Angeles Department of Water an	12/10/2010	12/9/2017		\$1,400,000.00	\$1,400,000.00	Purchase 56 Dump Trucks	\$0.00	Yes
ML09043	City of Covina	10/8/2010	4/7/2017	10/7/2018	\$179,591.00	\$179,591.00	Upgrade Existing CNG Station	\$0.00	Yes
ML09046	City of Newport Beach	5/20/2010	5/19/2016		\$162,500.00	\$162,500.00	Upgrade Existing CNG Station, Maintenance	\$0.00	Yes
ML09047	Los Angeles County Department of P	8/13/2014	8/12/2015	11/12/2015	\$400,000.00	\$272,924.53	Maintenance Facility Modifications	\$127,075.47	No
MS09001	Administrative Services Co-Op/Long	3/5/2009	6/30/2012	12/31/2013	\$225,000.00	\$150,000.00	15 CNG Taxicabs	\$75,000.00	Yes
MS09005	Gas Equipment Systems, Inc.	6/19/2009	10/18/2010		\$71,000.00	\$71,000.00	Provide Temp. Fueling for Mountain Area C	\$0.00	Yes

Total: 30

Open/Complete Contracts

ML09009	City of South Pasadena	11/5/2010	12/4/2016	3/4/2019	\$125,930.00	\$125,930.00	CNG Station Expansion	\$0.00	Yes
ML09026	Los Angeles County Department of P	10/15/2010	10/14/2017	4/14/2019	\$150,000.00	\$80,411.18	3 Off-Road Vehicles Repowers	\$69,588.82	Yes
ML09036	City of Long Beach Fleet Services B	5/7/2010	5/6/2017	11/6/2022	\$875,000.00	\$875,000.00	Purchase 35 Natural Gas Refuse Trucks	\$0.00	Yes

Total: 3

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2010-2011 Contracts

Open Contracts

ML11029	City of Santa Ana	9/7/2012	3/6/2020	3/6/2023	\$262,500.00	\$75,000.00	Expansion of Existing CNG Station, Install N	\$187,500.00	No
ML11045	City of Newport Beach	2/3/2012	8/2/2018	3/2/2021	\$30,000.00	\$0.00	Purchase 1 Nat. Gas H.D. Vehicle	\$30,000.00	No
MS11065	Temecula Valley Unified School Distr	8/11/2012	1/10/2019		\$50,000.00	\$48,539.62	Expansion of Existing CNG Station	\$1,460.38	No

Total: 3

Declined/Cancelled Contracts

ML11038	City of Santa Monica	5/18/2012	7/17/2018		\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
MS11013	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Huntington Beach	\$150,000.00	No
MS11014	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Santa Ana	\$150,000.00	No
MS11015	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Inglewood	\$150,000.00	No
MS11046	Luis Castro				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11047	Ivan Borjas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11048	Phase II Transportation				\$1,080,000.00	\$0.00	Repower 27 Heavy-Duty Vehicles	\$1,080,000.00	No
MS11049	Ruben Caceras				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11050	Carlos Arrue				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11051	Francisco Vargas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11053	Jose Ivan Soltero				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11054	Albino Meza				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11059	Go Natural Gas				\$150,000.00	\$0.00	New Public Access CNG Station - Paramou	\$150,000.00	No
MS11063	Standard Concrete Products				\$310,825.00	\$0.00	Retrofit Two Off-Road Vehicles under Showc	\$310,825.00	No
MS11070	American Honda Motor Company				\$100,000.00	\$0.00	Expansion of Existing CNG Station	\$100,000.00	No
MS11072	Trillium USA Company DBA Californi				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS11077	DCL America Inc.				\$263,107.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$263,107.00	No
MS11083	Cattrac Construction, Inc.				\$500,000.00	\$0.00	Install DECS on Eight Off-Road Vehicles	\$500,000.00	No
MS11084	Ivanhoe Energy Services and Develo				\$66,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$66,750.00	No
MS11088	Diesel Emission Technologies				\$32,750.00	\$0.00	Retrofit Three H.D. Off-Road Vehicles Under	\$32,750.00	No
MS11089	Diesel Emission Technologies				\$9,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$9,750.00	No
MS11090	Diesel Emission Technologies				\$14,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$14,750.00	No

Total: 22

Closed Contracts

ML11007	Coachella Valley Association of Gov	7/29/2011	7/28/2012		\$250,000.00	\$249,999.96	Regional PM10 Street Sweeping Program	\$0.04	Yes
ML11022	City of Anaheim	3/16/2012	7/15/2018		\$150,000.00	\$150,000.00	Purchase of 5 H.D. Vehicles	\$0.00	Yes
ML11026	City of Redlands	3/2/2012	10/1/2018		\$90,000.00	\$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11027	City of Los Angeles, Dept. of Genera	5/4/2012	7/3/2015	1/3/2016	\$300,000.00	\$300,000.00	Maintenance Facility Modifications	\$0.00	Yes
ML11028	City of Glendale	1/13/2012	5/12/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. CNG Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML11030	City of Fullerton	2/3/2012	3/2/2018		\$109,200.00	\$109,200.00	Purchase 2 Nat. Gas H.D. Vehicles, Retrofit	\$0.00	Yes
ML11031	City of Culver City Transportation De	12/2/2011	12/1/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML11033	City of Los Angeles, Bureau of Sanit	3/16/2012	1/15/2019		\$1,080,000.00	\$1,080,000.00	Purchase 36 LNG H.D. Vehicles	\$0.00	Yes
ML11034	City of Los Angeles, Department of	5/4/2012	1/3/2019		\$630,000.00	\$630,000.00	Purchase 21 H.D. CNG Vehicles	\$0.00	Yes
ML11035	City of La Quinta	11/18/2011	11/17/2012		\$25,368.00	\$25,368.00	Retrofit 3 On-Road Vehicles w/DECS	\$0.00	Yes
ML11039	City of Ontario, Housing & Municipal	1/27/2012	9/26/2018		\$180,000.00	\$180,000.00	Purchase 6 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11042	City of Chino	2/17/2012	4/16/2018		\$30,000.00	\$30,000.00	Purchase 1 Nat. Gas H.D. Vehicle, Repower	\$0.00	Yes
ML11043	City of Hemet Public Works	2/3/2012	2/2/2019		\$60,000.00	\$60,000.00	Purchase 2 H.D. Nat. Gas Vehicles	\$0.00	Yes
MS11001	Mineral LLC	4/22/2011	4/30/2013	4/30/2015	\$111,827.00	\$103,136.83	Design, Develop, Host and Maintain MSRC	\$8,690.17	Yes
MS11002	A-Z Bus Sales, Inc.	7/15/2011	12/31/2011	6/30/2013	\$1,705,000.00	\$1,705,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11003	BusWest	7/26/2011	12/31/2011	12/31/2012	\$1,305,000.00	\$1,305,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11004	Los Angeles County MTA	9/9/2011	2/29/2012		\$450,000.00	\$299,743.34	Clean Fuel Transit Service to Dodger Stadiu	\$150,256.66	Yes
MS11006	Orange County Transportation Autho	10/7/2011	2/29/2012	8/31/2012	\$268,207.00	\$160,713.00	Metrolink Service to Angel Stadium	\$107,494.00	Yes
MS11017	CR&R, Inc.	3/2/2012	2/1/2018		\$100,000.00	\$100,000.00	Expansion of existing station - Garden Grove	\$0.00	Yes
MS11018	Orange County Transportation Autho	10/14/2011	1/31/2012		\$211,360.00	\$211,360.00	Express Bus Service to Orange County Fair	\$0.00	Yes
MS11052	Krisda Inc	9/27/2012	6/26/2013		\$120,000.00	\$120,000.00	Repower Three Heavy-Duty Vehicles	\$0.00	Yes
MS11056	Better World Group Advisors	12/30/2011	12/29/2013	12/29/2015	\$206,836.00	\$186,953.46	Programmatic Outreach Services	\$19,882.54	Yes
MS11057	Riverside County Transportation Co	7/28/2012	3/27/2013		\$100,000.00	\$89,159.40	Develop and Implement 511 "Smart Phone"	\$10,840.60	Yes
MS11058	L A Service Authority for Freeway E	5/31/2013	4/30/2014		\$123,395.00	\$123,395.00	Implement 511 "Smart Phone" Application	\$0.00	Yes
MS11061	Eastern Municipal Water District	3/29/2012	5/28/2015		\$11,659.00	\$1,450.00	Retrofit One Off-Road Vehicle under Showc	\$10,209.00	Yes
MS11062	Load Center	9/7/2012	1/6/2016	12/6/2016	\$175,384.00	\$169,883.00	Retrofit Six Off-Road Vehicles under Showc	\$5,501.00	Yes
MS11066	Torrance Unified School District	11/19/2012	9/18/2018		\$42,296.00	\$42,296.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11068	Ryder System Inc.	7/28/2012	10/27/2018		\$175,000.00	\$175,000.00	New Public Access L/CNG Station (Fontana)	\$0.00	Yes
MS11069	Ryder System Inc.	7/28/2012	8/27/2018		\$175,000.00	\$175,000.00	New Public Access L/CNG Station (Orange)	\$0.00	Yes
MS11074	SunLine Transit Agency	5/11/2012	7/31/2012		\$41,849.00	\$22,391.00	Transit Service for Coachella Valley Festival	\$19,458.00	Yes
MS11080	Southern California Regional Rail Au	4/6/2012	7/31/2012		\$26,000.00	\$26,000.00	Metrolink Service to Auto Club Speedway	\$0.00	Yes
MS11086	DCL America Inc.	6/7/2013	10/6/2016		\$500,000.00	\$359,076.96	Retrofit Eight H.D. Off-Road Vehicles Under	\$140,923.04	Yes
MS11087	Cemex Construction Material Pacific,	10/16/2012	2/15/2016		\$448,766.00	\$448,760.80	Retrofit 13 H.D. Off-Road Vehicles Under Sh	\$5.20	Yes
MS11091	California Cartage Company, LLC	4/5/2013	8/4/2016	2/4/2018	\$55,000.00	\$0.00	Retrofit Two H.D. Off-Road Vehicles Under	\$55,000.00	No
MS11092	Griffith Company	2/15/2013	6/14/2016	12/14/2017	\$390,521.00	\$78,750.00	Retrofit 17 H.D. Off-Road Vehicles Under Sh	\$311,771.00	No

Total: 35

Closed/Incomplete Contracts									
MS11064	City of Hawthorne	7/28/2012	8/27/2018	8/27/2019	\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
MS11076	SA Recycling, LLC	5/24/2012	9/23/2015		\$424,801.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$424,801.00	No
MS11081	Metropolitan Stevedore Company	9/7/2012	1/6/2016		\$45,416.00	\$0.00	Install DECS on Two Off-Road Vehicles	\$45,416.00	No
MS11082	Baumot North America, LLC	8/2/2012	12/1/2015		\$65,958.00	\$4,350.00	Install DECS on Four Off-Road Vehicles	\$61,608.00	Yes
MS11085	City of Long Beach Fleet Services B	8/23/2013	12/22/2016		\$159,012.00	\$0.00	Retrofit Seven H.D. Off-Road Vehicles Unde	\$159,012.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 5									
Open/Complete Contracts									
ML11020	City of Indio	2/1/2013	3/31/2019	9/30/2020	\$15,000.00	\$9,749.50	Retrofit one H.D. Vehicles w/DECS, repower	\$5,250.50	Yes
ML11021	City of Whittier	1/27/2012	9/26/2018	6/26/2019	\$210,000.00	\$210,000.00	Purchase 7 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11023	City of Rancho Cucamonga	4/20/2012	12/19/2018	9/19/2020	\$260,000.00	\$260,000.00	Expand Existing CNG Station, 2 H.D. Vehicl	\$0.00	Yes
ML11024	County of Los Angeles, Dept of Publi	12/5/2014	6/4/2022		\$90,000.00	\$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11025	County of Los Angeles Department o	3/14/2014	9/13/2021		\$150,000.00	\$150,000.00	Purchase 5 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11032	City of Gardena	3/2/2012	9/1/2018	10/1/2020	\$102,500.00	\$102,500.00	Purchase Heavy-Duty CNG Vehicle, Install	\$0.00	Yes
ML11036	City of Riverside	1/27/2012	1/26/2019	3/26/2021	\$670,000.00	\$670,000.00	Install New CNG Station, Purchase 9 H.D. N	\$0.00	Yes
ML11037	City of Anaheim	12/22/2012	12/21/2019		\$300,000.00	\$300,000.00	Purchase 12 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11040	City of South Pasadena	5/4/2012	1/3/2019	1/3/2022	\$30,000.00	\$30,000.00	Purchase 1 Nat. Gas H.D. Vehicle	\$0.00	Yes
ML11041	City of Santa Ana	9/7/2012	11/6/2018	1/6/2021	\$265,000.00	\$244,651.86	Purchase 7 LPG H.D. Vehicles, Retrofit 6 H.	\$20,348.14	Yes
ML11044	City of Ontario, Housing & Municipal	1/27/2012	6/26/2019		\$400,000.00	\$400,000.00	Expand Existing CNG Station	\$0.00	Yes
MS11008	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11009	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11010	Border Valley Trading	8/26/2011	10/25/2017	4/25/2020	\$150,000.00	\$150,000.00	New LNG Station	\$0.00	Yes
MS11011	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Signal Hill	\$0.00	Yes
MS11012	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Buena Park	\$0.00	Yes
MS11016	CR&R Incorporated	4/12/2013	10/11/2019		\$100,000.00	\$100,000.00	New CNG Station - Perris	\$0.00	Yes
MS11019	City of Corona	11/29/2012	4/28/2020		\$225,000.00	\$225,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11055	KEC Engineering	2/3/2012	8/2/2018	8/2/2019	\$200,000.00	\$200,000.00	Repower 5 H.D. Off-Road Vehicles	\$0.00	Yes
MS11060	Rowland Unified School District	8/17/2012	1/16/2019	1/16/2020	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS11067	City of Redlands	5/24/2012	11/23/2018	11/23/2019	\$85,000.00	\$85,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11071	City of Torrance Transit Department	12/22/2012	1/21/2019	1/21/2020	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS11073	Los Angeles Unified School District	9/11/2015	2/10/2022		\$175,000.00	\$175,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11079	Bear Valley Unified School District	2/5/2013	10/4/2019		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
Total: 24									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2011-2012 Contracts

Open Contracts

ML12014	City of Santa Ana	11/8/2013	8/7/2020		\$384,000.00	\$4,709.00	9 H.D. Nat. Gas & LPG Trucks, EV Charging	\$379,291.00	No
ML12018	City of West Covina	10/18/2013	10/17/2020	8/17/2023	\$300,000.00	\$0.00	Expansion of Existing CNG Station	\$300,000.00	No
ML12043	City of Hemet	6/24/2013	9/23/2019		\$60,000.00	\$0.00	Two Heavy-Duty Nat. Gas Vehicles	\$60,000.00	No
ML12045	City of Baldwin Park DPW	2/14/2014	12/13/2020	6/13/2022	\$400,000.00	\$0.00	Install New CNG Station	\$400,000.00	No
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	\$57,456.00	\$40,375.80	Purchase One Nat. Gas H.D. Vehicle/Street	\$17,080.20	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021		\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
ML12091	City of Bellflower	10/5/2018	10/4/2019		\$100,000.00	\$0.00	EV Charging Infrastructure	\$100,000.00	No
MS12060	City of Santa Monica	4/4/2014	8/3/2017	8/3/2019	\$500,000.00	\$434,202.57	Implement Westside Bikeshare Program	\$65,797.43	No

Total: 8

Declined/Cancelled Contracts

ML12016	City of Cathedral City	1/4/2013	10/3/2019		\$60,000.00	\$0.00	CNG Vehicle & Electric Vehicle Infrastructur	\$60,000.00	No
ML12038	City of Long Beach Public Works				\$26,000.00	\$0.00	Electric Vehicle Charging Infrastructure	\$26,000.00	No
ML12040	City of Duarte				\$30,000.00	\$0.00	One Heavy-Duty Nat. Gas Vehicle	\$30,000.00	No
ML12044	County of San Bernardino Public Wo				\$250,000.00	\$0.00	Install New CNG Station	\$250,000.00	No
ML12048	City of La Palma	1/4/2013	11/3/2018		\$20,000.00	\$0.00	Two Medium-Duty LPG Vehicles	\$20,000.00	No
ML12052	City of Whittier	3/14/2013	7/13/2019		\$165,000.00	\$0.00	Expansion of Existing CNG Station	\$165,000.00	No
ML12053	City of Mission Viejo				\$60,000.00	\$0.00	EV Charging Infrastructure	\$60,000.00	No
MS12007	WestAir Gases & Equipment				\$100,000.00	\$0.00	Construct New Limited-Acess CNG Station	\$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		\$75,000.00	\$0.00	Purchase 3 Medium-Heavy Duty Vehicles	\$75,000.00	No
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12067	Leatherwood Construction, Inc.	11/8/2013	3/7/2017		\$122,719.00	\$0.00	Retrofit Six Vehicles w/DECS - Showcase III	\$122,719.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No

Total: 12

Closed Contracts

ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		\$38,000.00	\$16,837.00	EV Charging Infrastructure	\$21,163.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		\$40,000.00	\$40,000.00	Four Medium-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		\$250,000.00	\$192,333.00	EV Charging Infrastructure	\$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	\$68,977.00	\$38,742.16	EV Charging Infrastructure	\$30,234.84	Yes
ML12042	City of Chino Hills	1/18/2013	3/17/2017		\$87,500.00	\$87,500.00	Expansion of Existing CNG Station	\$0.00	Yes
ML12047	City of Orange	2/1/2013	1/31/2019		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		\$30,432.00	\$3,265.29	EV Charging Infrastructure	\$27,166.71	Yes
ML12050	City of Baldwin Park	4/25/2013	4/24/2014	10/24/2014	\$402,400.00	\$385,363.00	EV Charging Infrastructure	\$17,037.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12054	City of Palm Desert	9/30/2013	2/28/2015		\$77,385.00	\$77,385.00	EV Charging Infrastructure	\$0.00	Yes
ML12055	City of Manhattan Beach	3/1/2013	12/31/2018		\$10,000.00	\$10,000.00	One Medium-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12056	City of Cathedral City	3/26/2013	5/25/2014		\$25,000.00	\$25,000.00	Regional Street Sweeping Program	\$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		\$5,900.00	\$5,900.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$211,170.00	Clean Fuel Transit Service to Dodger Stadiu	\$88,830.00	Yes
MS12002	Orange County Transportation Autho	9/7/2012	4/30/2013		\$342,340.00	\$333,185.13	Express Bus Service to Orange County Fair	\$9,154.87	Yes
MS12003	Orange County Transportation Autho	7/20/2012	2/28/2013		\$234,669.00	\$167,665.12	Implement Metrolink Service to Angel Stadiu	\$67,003.88	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12012	Rim of the World Unified School Dist	12/20/2012	5/19/2014		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		\$150,000.00	\$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12028	Dy-Dee Service of Pasadena, Inc.	12/22/2012	1/21/2019		\$45,000.00	\$40,000.00	Purchase 2 Medium-Duty and 1 Medium-He	\$5,000.00	Yes
MS12029	Community Action Partnership of Or	11/2/2012	11/1/2018		\$25,000.00	\$14,850.00	Purchase 1 Medium-Heavy Duty Vehicle	\$10,150.00	Yes
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		\$50,000.00	\$32,446.00	Purchase 2 Medium-Heavy Duty Vehicles	\$17,554.00	Yes
MS12032	Fox Transportation	12/14/2012	12/13/2018		\$500,000.00	\$500,000.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12036	Jim & Doug Carter's Automotive/VS	1/4/2013	11/3/2018		\$50,000.00	\$50,000.00	Purchase 2 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12058	Krisda Inc	4/24/2013	1/23/2019		\$25,000.00	\$25,000.00	Repower One Heavy-Duty Off-Road Vehicle	\$0.00	Yes
MS12059	Orange County Transportation Autho	2/28/2013	12/27/2014		\$75,000.00	\$75,000.00	Maintenance Facilities Modifications	\$0.00	Yes
MS12061	Orange County Transportation Autho	3/14/2014	3/13/2017		\$224,000.00	\$114,240.00	Transit-Oriented Bicycle Sharing Program	\$109,760.00	Yes
MS12062	Fraser Communications	12/7/2012	5/31/2014		\$998,669.00	\$989,218.49	Develop & Implement "Rideshare Thursday"	\$9,450.51	Yes
MS12064	Anaheim Transportation Network	3/26/2013	12/31/2014		\$127,296.00	\$56,443.92	Implement Anaheim Circulator Service	\$70,852.08	Yes
MS12065	Orange County Transportation Autho	7/27/2013	11/30/2013		\$43,933.00	\$14,832.93	Ducks Express Service to Honda Center	\$29,100.07	Yes
MS12068	Southern California Regional Rail Au	3/1/2013	9/30/2013		\$57,363.00	\$47,587.10	Implement Metrolink Service to Autoclub Sp	\$9,775.90	Yes
MS12069	City of Irvine	8/11/2013	2/28/2014		\$45,000.00	\$26,649.41	Implement Special Transit Service to Solar	\$18,350.59	Yes
MS12071	Transit Systems Unlimited, Inc.	5/17/2013	12/16/2018		\$21,250.00	\$21,250.00	Expansion of Existing CNG Station	\$0.00	Yes
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		\$75,000.00	\$75,000.00	Maintenance Facilities Modification	\$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$73,107.00	Maintenance Facility Modifications - Vernon	\$1,893.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$75,000.00	Maintenance Facility Modifications - Santa A	\$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		\$125,000.00	\$125,000.00	Implement Rideshare Incentives Program	\$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		\$125,000.00	\$18,496.50	Implement Rideshare Incentives Program	\$106,503.50	Yes
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$249,136.00	\$105,747.48	Implement Rideshare Incentives Program	\$143,388.52	No
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	No

Total: 43

Closed/Incomplete Contracts

ML12051	City of Bellflower	2/7/2014	2/6/2016	5/6/2018	\$100,000.00	\$0.00	EV Charging Infrastructure	\$100,000.00	No
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS12079	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$0.00	Maintenance Facility Modifications - Boyle H	\$75,000.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No

Total: 4

Open/Complete Contracts

ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	\$40,000.00	\$40,000.00	HD CNG Vehicle, Expand CNG Station	\$0.00	Yes
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	\$950,000.00	\$950,000.00	32 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12020	City of Los Angeles, Department of	9/27/2012	3/26/2019	3/26/2020	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020		\$110,000.00	\$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	\$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		\$90,000.00	\$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12046	City of Irvine	8/11/2013	3/10/2021		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$150,000.00	Construct New Public-Access LNG Station	\$0.00	Yes
MS12010	Murrieta Valley Unified School Distric	4/5/2013	9/4/2019		\$242,786.00	\$242,786.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12024	Southern California Gas Company	6/13/2013	12/12/2019	11/12/2020	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12026	U-Haul Company of California	3/14/2013	3/13/2019		\$500,000.00	\$353,048.26	Purchase 23 Medium-Heavy Duty Vehicles	\$146,951.74	Yes
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$148,900.00	\$148,900.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	No
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	5/1/2022	\$133,070.00	\$133,070.00	Purchase 8 Medium-Heavy Duty Vehicles	\$0.00	No
MS12035	Disneyland Resort	1/4/2013	7/3/2019		\$25,000.00	\$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	\$6,100.00	Yes
MS12063	Custom Alloy Light Metals, Inc.	8/16/2013	2/15/2020		\$100,000.00	\$100,000.00	Install New Limited Access CNG Station	\$0.00	Yes
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		\$100,000.00	\$100,000.00	Construct New CNG Station	\$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		\$150,000.00	\$150,000.00	Construct New CNG Station	\$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	No
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021	2/19/2023	\$175,000.00	\$175,000.00	Install New CNG Infrastructure	\$0.00	Yes
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$59,454.00	Install New CNG Infrastructure	\$0.00	Yes
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		\$225,000.00	\$225,000.00	Purchase 23 Medium-Heavy Duty Vehicles	\$0.00	Yes

Total: 25

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2012-2014 Contracts									
Open Contracts									
ML14012	City of Santa Ana	2/13/2015	10/12/2021		\$244,000.00	\$0.00	EV Charging and 7 H.D. LPG Vehicles	\$244,000.00	No
ML14018	City of Los Angeles, Department of	3/6/2015	9/5/2021	12/5/2022	\$810,000.00	\$720,000.00	Purchase 27 H.D. Nat. Gas Vehicles	\$90,000.00	No
ML14019	City of Corona Public Works	12/5/2014	6/4/2020	3/6/2023	\$111,518.00	\$111,517.18	EV Charging, Bicycle Racks, Bicycle Locker	\$0.82	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016	9/30/2020	\$250,000.00	\$0.00	Bicycle Trail Improvements	\$250,000.00	No
ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	\$230,000.00	\$0.00	Maintenance Fac. Modifications-Westcheste	\$230,000.00	No
ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	\$230,000.00	\$0.00	Maintenance Fac. Modifications-Baldwin Par	\$230,000.00	No
ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018	7/1/2024	\$300,000.00	\$0.00	Construct New CNG Station in Malibu	\$300,000.00	No
ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	5/1/2024	\$300,000.00	\$0.00	Construct New CNG Station in Castaic	\$300,000.00	No
ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	6/1/2024	\$500,000.00	\$0.00	Construct New CNG Station in Canyon Coun	\$500,000.00	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	6/8/2019	\$425,000.00	\$25,000.00	Bicycle Racks, Outreach & Education	\$400,000.00	No
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$48,250.00	One HD Nat Gas Vehicle, EV Charging, Bicy	\$56,750.00	No
ML14060	County of Los Angeles Internal Servi	10/6/2017	1/5/2019		\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14062	City of San Fernando	3/27/2015	5/26/2021	10/31/2023	\$387,091.00	\$0.00	Expand Existing CNG Fueling Station	\$387,091.00	No
ML14067	City of Duarte	12/4/2015	1/3/2023	6/3/2024	\$60,000.00	\$0.00	Purchase Two Electric Buses	\$60,000.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
ML14069	City of Beaumont	3/3/2017	3/2/2025		\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		\$365,245.00	\$0.00	Bicycle Trail Improvements	\$365,245.00	No
ML14072	City of Cathedral City	8/13/2014	1/12/2021		\$136,000.00	\$0.00	Medium & H.D. Vehicles, EV Charging, Bike	\$136,000.00	No
ML14093	County of Los Angeles Dept of Publi	8/14/2015	1/13/2019		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14095	City of South Pasadena	1/10/2019	7/9/2019		\$142,096.00	\$134,182.09	Bicycle Trail Improvements	\$7,913.91	No
MS14037	Penske Truck Leasing Co., L.P.	4/7/2017	6/6/2020		\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Carson	\$75,000.00	No
MS14057	Los Angeles County MTA	11/7/2014	10/6/2019	10/6/2020	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018	4/4/2020	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14072	San Bernardino County Transportatio	3/27/2015	3/26/2018	3/26/2020	\$1,250,000.00	\$887,566.17	Implement Various Signal Synchronization P	\$362,433.83	No
MS14076	Rialto Unified School District	6/17/2015	2/16/2022		\$225,000.00	\$213,750.00	New Public Access CNG Station	\$11,250.00	No
MS14079	Waste Resources, Inc.	9/14/2016	8/13/2022	8/13/2023	\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14083	Hacienda La Puente Unified School	7/10/2015	3/9/2022		\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
Total: 27									
Declined/Cancelled Contracts									
ML14063	City of Hawthorne				\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
MS14035	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	\$75,000.00	No
MS14036	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - La Mirad	\$75,000.00	No
MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
MS14043	City of Anaheim				\$175,000.00	\$0.00	Expansion of Existing CNG Station	\$175,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14085	Prologis, L.P.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14086	San Gabriel Valley Towing I				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No

Total: 9

Closed Contracts

ML14010	City of Cathedral City	8/13/2014	10/12/2015		\$25,000.00	\$25,000.00	Street Sweeping Operations	\$0.00	Yes
ML14011	City of Palm Springs	6/13/2014	1/12/2016		\$79,000.00	\$78,627.00	Bicycle Racks, Bicycle Outreach & Educatio	\$373.00	Yes
ML14015	Coachella Valley Association of Gov	6/6/2014	9/5/2015		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML14020	County of Los Angeles Dept of Publi	8/13/2014	1/12/2018		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	Yes
ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	\$450,000.00	\$450,000.00	Installation of Bicycle Trail	\$0.00	Yes
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	\$350,000.00	\$319,908.80	Upgrade Maintenance Facility	\$30,091.20	Yes
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	\$125,000.00	\$125,000.00	Bicycle Lanes	\$0.00	Yes
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		\$22,485.00	\$22,485.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14094	City of Yucaipa	6/9/2017	6/8/2018		\$84,795.00	\$84,795.00	Installation of Bicycle Lanes	\$0.00	Yes
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$1,199,512.68	Clean Fuel Transit Service to Dodger Stadiu	\$17,124.32	Yes
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		\$576,833.00	\$576,833.00	Clean Fuel Transit Service to Orange Count	\$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	\$194,235.00	\$184,523.00	Implement Metrolink Service to Angel Stadiu	\$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		\$36,800.00	\$35,485.23	Implement Express Bus Service to Solar De	\$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		\$515,200.00	\$511,520.00	Provide Expanded Shuttle Service to Hollyw	\$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		\$208,520.00	\$189,622.94	Implement Special Metrolink Service to Ang	\$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		\$601,187.00	\$601,187.00	Implement Clean Fuel Bus Service to Orang	\$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	\$388,000.00	\$388,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	\$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	\$0.00	Yes
MS14047	Southern California Regional Rail Au	3/7/2014	9/30/2014		\$49,203.00	\$32,067.04	Special Metrolink Service to Autoclub Speed	\$17,135.96	Yes
MS14048	BusWest	3/14/2014	12/31/2014	5/31/2015	\$940,850.00	\$847,850.00	Alternative Fuel School Bus Incentive Progra	\$93,000.00	Yes
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016	4/6/2017	\$1,250,000.00	\$1,250,000.00	Implement Various Signal Synchronization P	\$0.00	Yes
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		\$221,312.00	\$221,312.00	Anaheim Resort Circulator Service	\$0.00	Yes
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$195,377.88	Implement Special Metrolink Service to Ang	\$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$66,351.44	Special Metrolink Service to Autoclub Speed	\$13,308.56	Yes
MS14089	Top Shelf Consulting, LLC	1/18/2017	8/4/2016	3/31/2017	\$200,000.00	\$200,000.00	Enhanced Fleet Modernization Program	\$0.00	Yes

Total: 28

Closed/Incomplete Contracts

ML14050	City of Yucaipa	7/11/2014	9/10/2015	7/1/2016	\$84,795.00	\$0.00	Installation of Bicycle Lanes	\$84,795.00	No
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Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML14066	City of South Pasadena	9/12/2014	7/11/2016	2/11/2018	\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
MS14092	West Covina Unified School District	9/3/2016	12/2/2022		\$124,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$124,000.00	No

Total: 3

Open/Complete Contracts

ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$400,000.00	Purchase 14 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$56,000.00	EV Charging Infrastructure	\$0.00	Yes
ML14016	City of Anaheim	4/3/2015	9/2/2021		\$380,000.00	\$380,000.00	Purchase 2 H.D. Vehicles, Expansion of Exi	\$0.00	Yes
ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		\$270,000.00	\$270,000.00	Purchase 9 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$126,950.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$90,000.00	Purchase 3 H.D. CNG Vehicles	\$0.00	Yes
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$104,350.63	Expansion of Existing CNG Infrs., Bicycle L	\$9,639.37	Yes
ML14033	City of Irvine	7/11/2014	2/10/2021	2/10/2022	\$60,000.00	\$60,000.00	Purchase 2 H.D. CNG Vehicles	\$0.00	Yes
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		\$56,700.00	\$56,700.00	EV Charging Stations	\$0.00	Yes
ML14055	City of Highland	10/10/2014	3/9/2018	3/9/2019	\$500,000.00	\$489,385.24	Bicycle Lanes and Outreach	\$10,614.76	Yes
ML14061	City of La Habra	3/11/2016	3/10/2022		\$41,600.00	\$41,270.49	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$329.51	Yes
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$175,000.00	Limited-Access CNG Station, Vehicle Maint.	\$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$150,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Santa A	\$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Inglewoo	\$0.00	Yes
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	\$150,000.00	\$150,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		\$78,000.00	\$78,000.00	Expansion of an Existing CNG Fueling Statio	\$0.00	Yes
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	No
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$250,000.00	Limited-Access CNG Station & Facility Modif	\$0.00	Yes
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$300,000.00	\$293,442.00	Expansion of Existing CNG Infrastructure/Ma	\$6,558.00	Yes
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	No
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure/Ma	\$75,000.00	No
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023	3/3/2024	\$150,000.00	\$150,000.00	Construct New Public Access CNG Station	\$0.00	Yes
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes

Total: 27

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2014-2016 Contracts									
Open Contracts									
ML16006	City of Cathedral City	4/27/2016	4/26/2022		\$55,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Bicycle	\$55,000.00	No
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2023		\$246,000.00	\$210,000.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$36,000.00	No
ML16008	City of Pomona	9/20/2016	11/19/2022	11/19/2023	\$60,000.00	\$0.00	Purchase 3 Medium-Duty and 1 Heavy-Duty	\$60,000.00	No
ML16009	City of Fountain Valley	10/6/2015	2/5/2018	5/5/2019	\$46,100.00	\$0.00	Install EV Charging Infrastructure	\$46,100.00	No
ML16010	City of Fullerton	10/7/2016	4/6/2023		\$370,500.00	\$0.00	Expand Existing CNG Station, EV Charging I	\$370,500.00	No
ML16013	City of Monterey Park	12/4/2015	7/3/2022	7/3/2023	\$90,000.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16016	City of Los Angeles, Department of	2/5/2016	12/4/2022		\$630,000.00	\$540,000.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16017	City of Long Beach	2/5/2016	8/4/2023		\$1,445,400.00	\$1,101,400.00	Purchase 50 Medium-Duty, 19 H.D. Nat. Ga	\$344,000.00	No
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		\$29,520.00	\$23,768.44	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$5,751.56	No
ML16019	City of Los Angeles, Dept of General	1/25/2017	3/24/2020		\$102,955.00	\$0.00	Install EV Charging Infrastructure	\$102,955.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		\$49,400.00	\$0.00	Install EV Charging Infrastructure	\$49,400.00	No
ML16022	Los Angeles Department of Water an	5/5/2017	3/4/2024		\$360,000.00	\$0.00	Purchase 13 H.D. Nat. Gas Vehicles	\$360,000.00	No
ML16025	City of South Pasadena	6/22/2016	4/21/2023	4/21/2024	\$180,535.00	\$0.00	Purchase H.D. Nat. Gas Vehicle, Expand Ex	\$180,535.00	No
ML16032	City of Azusa	9/9/2016	4/8/2019	4/8/2020	\$474,925.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$474,925.00	No
ML16034	City of Riverside	3/11/2016	10/10/2018	10/10/2019	\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16038	City of Palm Springs	4/1/2016	7/31/2022		\$230,000.00	\$0.00	Install Bicycle Lanes & Purchase 4 Heavy-D	\$230,000.00	No
ML16039	City of Torrance Transit Department	1/6/2017	9/5/2022		\$32,000.00	\$0.00	Install EV Charging Infrastructure	\$32,000.00	No
ML16040	City of Eastvale	1/6/2017	7/5/2022		\$110,000.00	\$0.00	Install EV Charging Infrastructure	\$110,000.00	No
ML16041	City of Moreno Valley	9/3/2016	1/2/2021	1/2/2022	\$20,000.00	\$0.00	Install EV Charging Infrastructure	\$20,000.00	No
ML16042	City of San Dimas	4/1/2016	12/31/2019	12/31/2021	\$55,000.00	\$0.00	Install EV Charging Infrastructure	\$55,000.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		\$275,000.00	\$0.00	Maintenance Facility Modifications	\$275,000.00	No
ML16046	City of El Monte	4/1/2016	5/31/2021	5/31/2023	\$20,160.00	\$0.00	Install EV Charging Infrastructure	\$20,160.00	No
ML16047	City of Fontana	1/6/2017	8/5/2019		\$500,000.00	\$0.00	Enhance an Existing Class 1 Bikeway	\$500,000.00	No
ML16048	City of Placentia	3/26/2016	5/25/2021	6/25/2022	\$90,000.00	\$18,655.00	Install a Bicycle Locker and EV Charging Infr	\$71,345.00	No
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019		\$315,576.00	\$0.00	Install Two Class 1 Bikeways	\$315,576.00	No
ML16053	City of Claremont	3/11/2016	7/10/2018	5/10/2020	\$498,750.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$498,750.00	No
ML16054	City of Yucaipa	3/26/2016	7/26/2018	7/26/2019	\$120,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$120,000.00	No
ML16056	City of Ontario	3/23/2016	9/22/2020	9/22/2021	\$150,000.00	\$0.00	Expansion of an Existing CNG Station	\$150,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019	1/26/2020	\$380,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$380,000.00	No
ML16058	Los Angeles County Department of P	10/7/2016	4/6/2024		\$491,898.00	\$0.00	Purchase 15 H.D. Nat. Gas Vehicles and Ins	\$491,898.00	No
ML16069	City of West Covina	3/10/2017	6/9/2021		\$54,199.00	\$0.00	Installation of EV Charging Infrastructure	\$54,199.00	No
ML16070	City of Beverly Hills	2/21/2017	6/20/2023		\$90,000.00	\$90,000.00	Purchase 3 H.D. Nat. Gas Vehicles	\$0.00	No
ML16071	City of Highland	5/5/2017	1/4/2020		\$264,500.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$264,500.00	No
ML16075	City of San Fernando	10/27/2016	2/26/2019	2/26/2020	\$354,000.00	\$0.00	Install a Class 1 Bikeway	\$354,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16076	City of San Fernando	2/21/2017	8/20/2021		\$100,000.00	\$0.00	Install EV Charging Infrastructure	\$100,000.00	No
ML16077	City of Rialto	5/3/2018	10/2/2021		\$463,216.00	\$0.00	Pedestrian Access Improvements, Bicycle L	\$463,216.00	No
ML16083	City of El Monte	4/1/2016	4/30/2021	4/30/2023	\$57,210.00	\$0.00	Install EV Charging Infrastructure	\$57,210.00	No
ML16122	City of Wildomar	6/8/2018	6/7/2019		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
MS16029	Orange County Transportation Autho	1/12/2018	6/11/2020		\$851,883.00	\$0.00	Transportation Control Measure Partnership	\$851,883.00	No
MS16030	Better World Group Advisors	12/19/2015	12/31/2017	12/31/2019	\$256,619.00	\$175,229.18	Programmic Outreach Services to the MSR	\$81,389.82	No
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		\$800,625.00	\$229,589.91	Freeway Service Patrols	\$571,035.09	No
MS16090	Los Angeles County MTA	10/27/2016	4/26/2020		\$2,500,000.00	\$0.00	Expansion of the Willowbrook/Rosa Parks Tr	\$2,500,000.00	No
MS16091	San Bernardino County Transportatio	10/7/2016	11/6/2018		\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
MS16092	San Bernardino County Transportatio	2/3/2017	1/2/2019		\$242,937.00	\$242,016.53	Implement a Series of "Open Streets" Event	\$920.47	No
MS16094	Riverside County Transportation Co	1/25/2017	1/24/2022		\$1,909,241.00	\$0.00	MetroLink First Mile/Last Mile Mobility Strate	\$1,909,241.00	No
MS16096	San Bernardino County Transportatio	10/27/2016	12/26/2019		\$450,000.00	\$0.00	EV Charging Infrastructure	\$450,000.00	No
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		\$250,000.00	\$175,000.00	Expand CNG Station & Modify Maintenance	\$75,000.00	No
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	No
MS16110	City of Riverside	10/6/2017	2/5/2025		\$300,000.00	\$0.00	Expansion of Existing CNG Station and Main	\$300,000.00	No
MS16112	Orange County Transportation Autho	4/14/2017	3/13/2024		\$1,470,000.00	\$465,000.00	Repower Up to 98 Transit Buses	\$1,005,000.00	No
MS16113	Los Angeles County MTA	5/12/2017	4/11/2024		\$1,875,000.00	\$1,068,750.00	Repower Up to 125 Transit Buses	\$806,250.00	No
MS16115	City of Santa Monica	4/14/2017	7/13/2025		\$870,000.00	\$256,500.00	Repower 58 Transit Buses	\$613,500.00	No
MS16117	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$166,250.00	Expansion of Existing CNG Infrastructure	\$8,750.00	No
MS16118	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$166,250.00	Expansion of Existing CNG Infrastructure	\$8,750.00	No
MS16119	Omnitrans	4/21/2017	8/20/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS16120	Omnitrans	4/7/2017	5/6/2025		\$945,000.00	\$0.00	Repower 63 Existing Buses	\$945,000.00	No
MS16121	Long Beach Transit	11/3/2017	4/2/2024	11/30/2026	\$600,000.00	\$0.00	Repower 39 and Purchase 1 New Transit Bu	\$600,000.00	No
MS16123	Orange County Transportation Autho	12/7/2018	11/6/2023		\$91,760.00	\$0.00	Install La Habra Union Pacific Bikeway	\$91,760.00	No
MS16124	Riverside County Transportation Co	12/14/2018	12/14/2019		\$253,239.00	\$28,869.20	Extended Freeway Service Patrols	\$224,369.80	No

Total: 59

Pending Execution Contracts

MS16106	City of Lawndale				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16125	San Bernardino County Transportatio				\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No

Total: 2

Declined/Cancelled Contracts

ML16014	City of Dana Point				\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16067	City of South El Monte				\$73,329.00	\$0.00	Implement an "Open Streets" Event	\$73,329.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		\$365,000.00	\$0.00	Install CNG Fueling Station	\$365,000.00	No
MS16043	LBA Realty Company LLC				\$100,000.00	\$0.00	Install Limited-Access CNG Station	\$100,000.00	No
MS16080	Riverside County Transportation Co				\$1,200,000.00	\$0.00	Passenger Rail Service for Coachella and St	\$1,200,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS16098	Long Beach Transit				\$198,957.00	\$0.00	Provide Special Bus Service to Stub Hub Ce	\$198,957.00	No
MS16104	City of Perris				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16107	Athens Services				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public-Access CNG Station in Bell	\$150,000.00	No
MS16109	Sanitation Districts of Los Angeles C				\$275,000.00	\$0.00	Expansion of an Existing L/CNG Station	\$275,000.00	No
MS16111	VNG 925 Lakeview Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No

Total: 12

Closed Contracts

ML16005	City of Palm Springs	3/4/2016	10/3/2017		\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycl	\$40,000.00	No
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		\$85,000.00	\$85,000.00	Install Bicycle Lanes	\$0.00	No
ML16020	City of Pomona	4/1/2016	2/1/2018	8/1/2018	\$440,000.00	\$440,000.00	Install Road Surface Bicycle Detection Syste	\$0.00	No
ML16026	City of Downey	5/6/2016	9/5/2017		\$40,000.00	\$40,000.00	Install EV Charging Infrastructure	\$0.00	No
ML16028	City of Azusa	9/9/2016	4/8/2018		\$25,000.00	\$25,000.00	Enhance Existing Class 1 Bikeway	\$0.00	Yes
ML16031	City of Cathedral City	12/19/2015	2/18/2017		\$25,000.00	\$25,000.00	Street Sweeping in Coachella Valley	\$0.00	Yes
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$250,000.00	Street Sweeping Operations in Coachella Va	\$0.00	Yes
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
ML16036	City of Brea	3/4/2016	12/3/2018		\$500,000.00	\$500,000.00	Install a Class 1 Bikeway	\$0.00	Yes
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$429,262.00	Installation of a Class 1 Bikeway	\$0.00	Yes
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	\$320,000.00	\$258,691.25	Implement "Open Streets" Event with Variou	\$61,308.75	Yes
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$62,480.00	Implement an "Open Streets" Event	\$11,430.00	No
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		\$204,073.00	\$157,632.73	Implement "Open Streets" Events with Vario	\$46,440.27	No
ML16066	City of Long Beach Public Works	1/13/2017	9/12/2018		\$75,050.00	\$63,763.62	Implement an "Open Streets" Event	\$11,286.38	Yes
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		\$171,648.00	\$171,648.00	Implement "Open Streets" Events with Vario	\$0.00	Yes
ML16073	City of Long Beach Public Works	1/13/2017	7/12/2017		\$50,000.00	\$50,000.00	Implement an "Open Streets" Event	\$0.00	Yes
ML16078	City of Moreno Valley	5/6/2016	11/5/2017	5/5/2018	\$32,800.00	\$31,604.72	Install Bicycle Infrastructure & Implement Bi	\$1,195.28	Yes
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$1,332,039.84	Clean Fuel Transit Service to Dodger Stadiu	\$17,960.16	Yes
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		\$722,266.00	\$703,860.99	Clean Fuel Transit Service to Orange Count	\$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		\$380,304.00	\$380,304.00	Low-Emission Transportation Service for Sp	\$0.00	Yes
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	\$27,690.00	\$9,300.00	Design, Develop, Host and Maintain MSRC	\$18,390.00	Yes
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$396,930.00	Implement Special Shuttle Service from Uni	\$168,670.00	No
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		\$78,033.00	\$64,285.44	Special MetroLink Service to Autoclub Spee	\$13,747.56	No
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		\$128,500.00	\$128,500.00	Implement Special Bus Service to Angel Sta	\$0.00	Yes
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018	9/2/2018	\$1,553,657.00	\$1,499,575.85	Implement a Mobile Ticketing System	\$54,081.15	No
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		\$694,645.00	\$672,864.35	Implement Special Bus Service to Orange C	\$21,780.65	Yes
MS16099	Foothill Transit	3/3/2017	3/31/2017		\$50,000.00	\$50,000.00	Provide Special Bus Service to the Los Ange	\$0.00	Yes
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		\$80,455.00	\$66,169.43	Provide Metrolink Service to Autoclub Speed	\$14,285.57	Yes

Total: 28

[illegible]

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2016-2018 Contracts									
Open Contracts									
ML18019	City of Hidden Hills	5/3/2018	5/2/2022		\$49,999.00	\$10,000.00	Purchase Two Light-Duty ZEVs and EVSE	\$39,999.00	No
ML18020	City of Colton	5/3/2018	4/2/2024		\$67,881.00	\$0.00	Purchase One Medium-Duty and One Heavy	\$67,881.00	No
ML18021	City of Signal Hill	4/6/2018	1/5/2022		\$49,661.00	\$46,079.31	Install EVSE	\$3,581.69	No
ML18022	City of Desert Hot Springs	5/3/2018	1/2/2020		\$50,000.00	\$0.00	Traffic Signal and Synchronization Project	\$50,000.00	No
ML18028	City of Artesia	6/28/2018	3/27/2025		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18030	City of Grand Terrace	6/28/2018	3/27/2022	3/27/2025	\$45,000.00	\$0.00	Install EVSE	\$45,000.00	No
ML18031	City of Diamond Bar	9/7/2018	11/6/2025		\$73,930.00	\$0.00	Install EVSE, Purchase up to 2-LD Vehicles	\$73,930.00	No
ML18032	City of Arcadia	2/1/2019	4/30/2025		\$74,650.00	\$0.00	Purchase 1-HD ZEV & 1-HD Near-ZEV	\$74,650.00	No
ML18033	City of Duarte	8/8/2018	2/7/2025		\$50,000.00	\$0.00	Purchase 1-HD ZEV	\$50,000.00	No
ML18034	City of Calabasas	6/8/2018	3/7/2022		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18035	City of Westlake Village	8/8/2018	11/7/2022		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18036	City of Indian Wells	8/8/2018	5/7/2023		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18037	City of Westminster	6/28/2018	6/27/2024		\$120,900.00	\$0.00	Install EVSE, Purchase up to 3-LD ZEV & 1-	\$120,900.00	No
ML18038	City of Anaheim	10/5/2018	5/4/2025		\$221,500.00	\$0.00	Purchase 5 Light-Duty ZEVs and Install EVS	\$221,500.00	No
ML18039	City of Redlands	6/28/2018	7/27/2024		\$87,000.00	\$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	\$87,000.00	No
ML18040	City of Agoura Hills	7/13/2018	6/12/2022		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18041	City of West Hollywood	8/8/2018	12/7/2023		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18042	City of San Fernando	6/28/2018	2/27/2024		\$10,000.00	\$10,000.00	Purchase 1 Light-Duty ZEV	\$0.00	No
ML18043	City of Yorba Linda	9/7/2018	12/6/2023		\$87,990.00	\$0.00	Install EV Charging Infrastructure	\$87,990.00	No
ML18044	City of Malibu	8/8/2018	10/7/2022		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18045	City of Culver City Transportation De	6/28/2018	6/27/2025		\$51,000.00	\$0.00	Purchase Light-Duty ZEV	\$51,000.00	No
ML18046	City of Santa Ana	11/9/2018	7/8/2026		\$385,000.00	\$0.00	Purchase 6 Light-Duty ZEVs, 9 Heavy-Duty	\$385,000.00	No
ML18047	City of Whittier	8/8/2018	4/7/2026		\$113,910.00	\$0.00	Purchase 5 Heavy-Duty Near ZEVs	\$113,910.00	No
ML18048	City of Lynwood	6/28/2018	10/27/2024		\$93,500.00	\$0.00	Purchase Up to 3 Medium-Duty Zero-Emissi	\$93,500.00	No
ML18049	City of Downey	7/6/2018	5/5/2023		\$148,260.00	\$0.00	Install EVSE	\$148,260.00	No
ML18050	City of Irvine	9/7/2018	8/6/2028		\$330,490.00	\$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	\$330,490.00	No
ML18052	City of Garden Grove	8/8/2018	10/7/2022		\$53,593.00	\$0.00	Purchase 4 L.D. ZEVs and Infrastructure	\$53,593.00	No
ML18053	City of Paramount	9/7/2018	3/6/2023		\$72,580.00	\$0.00	Install EV Charging Infrastructure	\$72,580.00	No
ML18054	City of La Habra Heights	8/8/2018	4/7/2022		\$9,200.00	\$0.00	Purchase 1 L.D. ZEV	\$9,200.00	No
ML18055	City of Long Beach Fleet Services B	11/29/2018	11/28/2026		\$622,220.00	\$0.00	Install EV Charging Stations	\$622,220.00	No
ML18057	City of Carson	10/5/2018	7/4/2023		\$106,250.00	\$0.00	Purchase 5 Zero-Emission Vehicles and Infr	\$106,250.00	No
ML18058	City of Perris	10/12/2018	11/11/2024		\$94,624.00	\$0.00	Purchase 1 Med. H.D. ZEV and EV Chargin	\$94,624.00	No
ML18059	City of Glendale Water & Power	2/1/2019	7/31/2026		\$260,500.00	\$0.00	Install Electric Vehicle Charging Infrastructur	\$260,500.00	No
ML18060	County of Los Angeles Internal Servi	10/5/2018	8/4/2026		\$1,367,610.00	\$0.00	Purchase 29 Light-Duty ZEVs, 1 Med/Heavy	\$1,367,610.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18062	City of Beaumont	8/8/2018	9/7/2024		\$25,000.00	\$0.00	Purchase 1 Heavy-Duty Near-ZEV	\$25,000.00	No
ML18064	City of Eastvale	11/29/2018	4/28/2026		\$80,400.00	\$0.00	Purchase 2 Med. H.D. Zero Emission Vehicl	\$80,400.00	No
ML18067	City of Pico Rivera	9/7/2018	11/6/2022		\$83,500.00	\$0.00	Instal EVSE	\$83,500.00	No
ML18070	City of Lomita	11/29/2018	6/28/2022		\$6,250.00	\$0.00	Purchase 1 Light-Duty ZEV	\$6,250.00	No
ML18071	City of Chino Hills	9/7/2018	10/6/2022		\$30,000.00	\$0.00	Purchase 2 Light-Duty ZEVs and Install EVS	\$30,000.00	No
ML18072	City of Anaheim	12/18/2018	11/17/2026		\$239,560.00	\$0.00	Purchase 9 Light-Duty ZEVs & 2 Med/Hvy-D	\$239,560.00	No
ML18074	City of Buena Park	12/14/2018	6/13/2026		\$107,960.00	\$0.00	EV Charging Infrastructure	\$107,960.00	No
ML18076	City of Culver City Transportation De	10/5/2018	10/4/2023		\$1,130.00	\$0.00	Purchase Light-Duty ZEV	\$1,130.00	No
ML18077	City of Orange	11/2/2018	10/1/2022		\$59,776.00	\$0.00	Four Light-Duty ZEV and EV Charging Infr	\$59,776.00	No
ML18078	County of Riverside	10/5/2018	10/4/2028		\$425,000.00	\$0.00	Purchase 17 Heavy-Duty Vehicles	\$425,000.00	No
ML18079	City of Pasadena	12/7/2018	11/6/2023		\$183,670.00	\$0.00	EV Charging Infrastructure	\$183,670.00	No
ML18080	City of Santa Monica	1/10/2019	12/9/2023		\$121,500.00	\$0.00	Install EV Charging Stations	\$121,500.00	No
ML18081	City of Beaumont	10/5/2018	10/4/2022		\$31,870.00	\$0.00	EV Charging Infrastructure	\$31,870.00	No
ML18083	City of San Fernando	11/2/2018	11/1/2022		\$20,000.00	\$0.00	Implement Traffic Signal Synchronization	\$20,000.00	No
ML18088	City of Big Bear Lake	11/29/2018	8/28/2020		\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18091	City of Temecula	1/19/2019	7/18/2023		\$141,000.00	\$0.00	Install Sixteen EV Charging Stations	\$141,000.00	No
ML18092	City of South Pasadena	2/1/2019	1/31/2025		\$50,000.00	\$0.00	Procure Two Light-Duty ZEVs and Install EV	\$50,000.00	No
ML18093	City of Monterey Park	2/1/2019	2/28/2026		\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18095	City of Gardena	11/9/2018	12/8/2024		\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18097	City of Temple City	11/29/2018	7/28/2022		\$16,000.00	\$0.00	Purchase Two Light-Duty ZEVs	\$16,000.00	No
ML18098	City of Redondo Beach	2/1/2019	3/31/2023		\$89,400.00	\$0.00	Install Six EV Charging Stations	\$89,400.00	No
ML18101	City of Burbank	2/1/2019	4/30/2024		\$137,310.00	\$0.00	Install Twenty EV Charging Stations	\$137,310.00	No
ML18126	City of Lomita	12/7/2018	1/6/2020		\$26,500.00	\$0.00	Install bicycle racks and lanes	\$26,500.00	No
ML18127	City of La Puente	2/1/2019	2/28/2023		\$27,800.00	\$0.00	Purchase One Light-Duty ZEV, One Heavy-	\$27,800.00	No
ML18129	City of Yucaipa	12/14/2018	3/13/2023		\$63,097.00	\$0.00	Install Six EV Charging Stations	\$63,097.00	No
ML18133	City of Rancho Mirage	12/7/2018	11/6/2020		\$50,000.00	\$0.00	Traffic Signal Synchronization	\$50,000.00	No
ML18147	City of Palm Springs	1/10/2019	1/9/2024		\$60,000.00	\$0.00	Install Eighteen EV Charging Stations	\$60,000.00	No
ML18165	City of Baldwin Park	2/1/2019	1/30/2024		\$49,030.00	\$0.00	Expand CNG Station	\$49,030.00	No
MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		\$807,945.00	\$468,050.00	Provide Clean Fuel Transit Service to Dodge	\$339,895.00	No
MS18002	Southern California Association of G	6/9/2017	11/30/2018	12/30/2019	\$2,500,000.00	\$419,111.87	Regional Active Transportation Partnership	\$2,080,888.13	No
MS18003	Geographics	2/21/2017	2/20/2021		\$62,953.00	\$52,335.61	Design, Host and Maintain MSRC Website	\$10,617.39	No
MS18004	Orange County Transportation Autho	8/3/2017	4/30/2019		\$503,272.00	\$216,260.53	Provide Special Rail Service to Angel Stadiu	\$287,011.47	No
MS18005	Orange County Transportation Autho	1/5/2018	4/30/2019		\$834,222.00	\$405,709.29	Clean Fuel Bus Service to OC Fair	\$428,512.71	No
MS18006	Anaheim Transportation Network	10/6/2017	2/28/2020		\$219,564.00	\$9,488.22	Implement Anaheim Circulator Service	\$210,075.78	No
MS18008	Foothill Transit	1/12/2018	3/31/2019		\$100,000.00	\$49,406.61	Special Transit Service to LA County Fair	\$50,593.39	No
MS18009	Penske Truck Leasing Co., L.P.	8/8/2018	12/7/2020		\$82,500.00	\$0.00	Modify Maintenance Facility & Train Technici	\$82,500.00	No
MS18010	Southern California Regional Rail Au	12/28/2017	7/31/2019		\$351,186.00	\$148,570.20	Implement Special Metrolink Service to Unio	\$202,615.80	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18012	City of Hermosa Beach	2/2/2018	2/1/2024		\$36,000.00	\$0.00	Construct New Limited-Access CNG Station	\$36,000.00	No
MS18014	Regents of the University of Californi	10/5/2018	12/4/2019		\$254,795.00	\$58,574.02	Planning for EV Charging Infrastructure Inve	\$196,220.98	No
MS18015	Southern California Association of G	7/13/2018	2/28/2021		\$2,000,000.00	\$0.00	Southern California Future Communities Par	\$2,000,000.00	No
MS18016	Southern California Regional Rail Au	1/10/2019	3/31/2019		\$87,764.00	\$73,140.89	Special Train Service to Auto Club Speedwa	\$14,623.11	No
MS18018	City of Norwalk	6/8/2018	9/7/2019		\$75,000.00	\$0.00	Vehicle Maintenance Facility Modifications	\$75,000.00	No
MS18023	Riverside County Transportation Co	6/28/2018	6/27/2021		\$500,000.00	\$60,720.54	Weekend Freeway Service Patrols	\$439,279.46	No
MS18024	Riverside County Transportation Co	6/28/2018	8/27/2021		\$1,500,000.00	\$0.00	Vanpool Incentive Program	\$1,500,000.00	No
MS18025	Los Angeles County MTA	11/29/2018	5/31/2019		\$1,324,560.00	\$0.00	Special Bus and Train Service to Dodger Sta	\$1,324,560.00	No
MS18026	Omnitrans	10/5/2018	1/4/2020		\$83,000.00	\$0.00	Modify Vehicles Maintenance Facility and Tr	\$83,000.00	No
MS18027	City of Gardena	11/2/2018	9/1/2026		\$365,000.00	\$0.00	Install New Limited Access CNG, Modify Mai	\$365,000.00	No
MS18029	Irvine Ranch Water District	8/8/2018	10/7/2024		\$190,000.00	\$0.00	Install New Limited Access CNG Station & T	\$190,000.00	No
MS18073	Los Angeles County MTA	1/10/2019	2/9/2026		\$2,000,000.00	\$0.00	Purchase 40 Zero-Emission Transit Buses	\$2,000,000.00	No
MS18105	SCRRA/Metrolink	1/10/2019	6/30/2019		\$252,696.00	\$0.00	Special Train Service to the Festival of Light	\$252,696.00	No
MS18112	Banning Unified School District	11/29/2018	11/28/2024		\$275,000.00	\$0.00	Install New CNG Infrastructure	\$275,000.00	No
MS18120	City of Redondo Beach	2/1/2019	9/30/2025		\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18122	Universal Waste Systems, Inc.	2/1/2019	3/31/2025		\$200,000.00	\$0.00	Install New Limited Access CNG Infrastructur	\$200,000.00	No

Total: 87

Pending Execution Contracts

ML18051	City of Rancho Cucamonga				\$227,040.00	\$0.00	Purchase 9 Light-Duty ZEVs, 2 Med-Duty Z	\$227,040.00	No
ML18056	City of Chino				\$103,868.00	\$0.00	Install EV Charging Infrastructure	\$103,868.00	No
ML18061	City of Moreno Valley				\$25,000.00	\$0.00	Purchase 1 Heavy-Duty Near-ZEV	\$25,000.00	No
ML18063	City of Riverside				\$383,610.00	\$0.00	Expand Existing CNG Fueling Station	\$383,610.00	No
ML18068	City of Mission Viejo				\$125,690.00	\$0.00	Purchase 2 Light-Duty ZEVs, Install EVSE &	\$125,690.00	No
ML18069	City of Torrance				\$187,400.00	\$0.00	Purchase 4 Heavy-Duty Near ZEV and Instal	\$187,400.00	No
ML18082	City of Los Angeles Bureau of Sanita				\$900,000.00	\$0.00	Purchase Medium-Duty Vehicles and EV Ch	\$900,000.00	No
ML18084	City of South El Monte				\$30,000.00	\$0.00	EV Charging Infrastructure	\$30,000.00	No
ML18085	City of Orange				\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18086	City of Los Angeles Bureau of Street				\$300,000.00	\$0.00	Install Sixty EV Charging Stations	\$300,000.00	No
ML18087	City of Murrieta				\$143,520.00	\$0.00	Install Four EV Charging Stations	\$143,520.00	No
ML18089	City of Glendora				\$50,760.00	\$0.00	Purchase a medium-duty ZEV	\$50,760.00	No
ML18090	City of Santa Clarita				\$122,000.00	\$0.00	Install Eight EV Charging Stations	\$122,000.00	No
ML18094	City of Laguna Woods				\$50,000.00	\$0.00	Install Two EV Charging Stations	\$50,000.00	No
ML18096	City of Highland				\$70,210.00	\$0.00	Purchase Light-Duty ZEV and Install Three	\$70,210.00	No
ML18099	City of Laguna Hills				\$32,250.00	\$0.00	Install Six EV Charging Stations	\$32,250.00	No
ML18100	City of Brea				\$56,500.00	\$0.00	Install Thirteen EV Charging Stations	\$56,500.00	No
ML18128	City of Aliso Viejo				\$65,460.00	\$0.00	Purchase Two Light-Duty ZEVs and Install S	\$65,460.00	No
ML18130	City of Lake Forest				\$106,480.00	\$0.00	Install Twenty-One EVSEs	\$106,480.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18131	City of Los Angeles				\$19,294.00	\$0.00	Purchase Three Light-Duty ZEVs	\$19,294.00	No
ML18132	City of Montclair				\$50,000.00	\$0.00	Purchase Light-Duty ZEV and Install Eight E	\$50,000.00	No
ML18134	City of Los Angeles, Department of				\$290,000.00	\$0.00	Purchase Five Medium-Duty ZEVs	\$290,000.00	No
ML18135	City of Azusa				\$55,000.00	\$0.00	Purchase Three Light-Duty ZEVs and One H	\$55,000.00	No
ML18136	City of Orange				\$42,500.00	\$0.00	Purchase Four Light-Duty ZEVs and Install	\$42,500.00	No
ML18137	City of Wildomar				\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18138	City of La Canada Flintridge				\$50,000.00	\$0.00	Install Four EVSEs and Install Bicycle Racks	\$50,000.00	No
ML18139	City of Calimesa				\$50,000.00	\$0.00	Install Bicycle Lane	\$50,000.00	No
ML18140	City of Bell Gardens				\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-ZEVs	\$50,000.00	No
ML18141	City of Rolling Hills Estates				\$40,000.00	\$0.00	Purchase One Light-Duty ZEV and Install T	\$40,000.00	No
ML18142	City of La Quinta				\$51,780.00	\$0.00	Install Two EV Charging Stations	\$51,780.00	No
ML18143	City of La Habra				\$80,700.00	\$0.00	Install Two EVSEs	\$80,700.00	No
ML18144	City of Fontana				\$269,090.00	\$0.00	Install Twelve EVSEs	\$269,090.00	No
ML18145	City of Los Angeles Dept of Transpor				\$1,400,000.00	\$0.00	Provide One Hundred Rebates to Purchaser	\$1,400,000.00	No
ML18146	City of South Gate				\$127,400.00	\$0.00	Purchase Five Light-Duty ZEVs and Install T	\$127,400.00	No
ML18148	City of San Dimas				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18149	City of Sierra Madre				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18150	City of South El Monte				\$20,000.00	\$0.00	Implement Bike Share Program	\$20,000.00	No
ML18151	County of San Bernardino Departme				\$200,000.00	\$0.00	Purchase Eight Heavy-Duty Near Zero Emis	\$200,000.00	No
ML18152	County of San Bernardino Flood Con				\$108,990.00	\$0.00	Purchase Five Heavy-Duty Near Zero Emissi	\$108,990.00	No
ML18153	City of Cathedral City				\$52,215.00	\$0.00	Install EV Charging Infrastructure	\$52,215.00	No
ML18154	City of Hemet				\$30,000.00	\$0.00	Purchase Two Light-Duty ZEV and EV Char	\$30,000.00	No
ML18155	City of Claremont				\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18156	City of Covina				\$63,800.00	\$0.00	Purchase Four Light-Duty ZEVs and EV Cha	\$63,800.00	No
ML18157	City of Los Angeles Bureau of Street				\$85,000.00	\$0.00	Purchase One Medium-Duty ZEV	\$85,000.00	No
ML18158	City of Inglewood				\$146,000.00	\$0.00	Purchase 4 Light-Duty Zero Emission, 4 Me	\$146,000.00	No
ML18159	City of Rialto				\$135,980.00	\$0.00	Purchase Nine Light-Duty ZEVs and EV Cha	\$135,980.00	No
ML18160	City of Irwindale				\$14,263.00	\$0.00	Purchase Two Light-Duty ZEVs	\$14,263.00	No
ML18161	City of Indio				\$50,000.00	\$0.00	Purchase 1 Light-Duty Zero Emission, 1 Hea	\$50,000.00	No
ML18162	City of Costa Mesa				\$148,210.00	\$0.00	Purchase Four Light-Duty ZEVs and EV Cha	\$148,210.00	No
ML18163	City of San Clemente				\$85,000.00	\$0.00	Purchase Three Light-Duty ZEVs and EV Ch	\$85,000.00	No
ML18164	City of Pomona				\$200,140.00	\$0.00	Purchase Three Heavy-Duty ZEVs	\$200,140.00	No
ML18166	City of Placentia				\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
ML18167	City of Beverly Hills				\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18168	City of Maywood				\$7,059.00	\$0.00	Purchase EV Charging Infrastructure	\$7,059.00	No
ML18169	City of Alhambra				\$111,980.00	\$0.00	Install EV Charging Infrastructure	\$111,980.00	No
ML18170	City of Laguna Niguel				\$85,100.00	\$0.00	Purchase Two Light-Duty ZEVs and EV Cha	\$85,100.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18171	City of El Monte				\$119,757.00	\$0.00	Purchase One Heavy-Duty ZEVs and EV Ch	\$119,757.00	No
ML18172	City of Huntington Park				\$65,450.00	\$0.00	Purchase One Heavy-Duty ZEV	\$65,450.00	No
ML18173	City of Manhattan Beach				\$49,000.00	\$0.00	Purchase Two Light-Duty ZEVs and EV Cha	\$49,000.00	No
ML18174	City of Bell				\$25,000.00	\$0.00	Purchase One Heavy-Duty ZEV	\$25,000.00	No
ML18176	City of Coachella				\$58,020.00	\$0.00	Install EV Charging Stations	\$58,020.00	No
ML18177	City of San Bernardino				\$279,088.00	\$0.00	Purchase Medium- and Heavy-Duty Evs and	\$279,088.00	No
ML18178	City of La Puente				\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
MS18065	San Bernardino County Transportatio				\$2,000,000.00	\$0.00	Implement Metrolink Line Fare Discount Pro	\$2,000,000.00	No
MS18066	El Dorado National				\$100,000.00	\$0.00	Install New Limited-Access CNG Station	\$100,000.00	No
MS18102	Orange County Transportation Autho				\$1,146,000.00	\$0.00	Implement OC Flex Micro-Transit Pilot Proje	\$1,146,000.00	No
MS18103	Orange County Transportation Autho				\$642,000.00	\$0.00	Install Hydrogen Detection System	\$642,000.00	No
MS18104	Orange County Transportation Autho				\$212,000.00	\$0.00	Implement College Pass Transit Fare Subsi	\$212,000.00	No
MS18106	R.F. Dickson Co., Inc.				\$265,000.00	\$0.00	Expansion of Existing Infrastructure/Mechani	\$265,000.00	No
MS18107	Huntington Beach Union High School				\$225,000.00	\$0.00	Expansion of Existing Infrastructure	\$225,000.00	No
MS18108	Capistrano Unified School District				\$116,000.00	\$0.00	Expansion of Existing Infrastructure & Train	\$116,000.00	No
MS18109	City of South Gate				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18110	Mountain View School District				\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18111	Newport-Mesa Unified School Distric				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS18114	Los Angeles County Department of P				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18115	City of Commerce				\$275,000.00	\$0.00	Expansion of Existing L/CNG Infrastructure	\$275,000.00	No
MS18116	Los Angeles County Department of P				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18117	City of San Bernardino				\$240,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Me	\$240,000.00	No
MS18118	City of Beverly Hills				\$85,272.00	\$0.00	Expansion of Existing CNG Infrastructure	\$85,272.00	No
MS18119	LBA Realty Company XI LP				\$100,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$100,000.00	No
MS18121	City of Montebello				\$70,408.00	\$0.00	Expansion of Existing CNG Infrastructure	\$70,408.00	No
MS18123	City Rent A Bin DBA Serv-Wel Dispo				\$200,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$200,000.00	No
MS18124	County Sanitation Districts of Los An				\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18125	US Gain				\$200,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$200,000.00	No
MS18175	Regents of the University of Californi				\$1,000,000.00	\$0.00	Expansion of Existing Hydrogen Station	\$1,000,000.00	No

Total: 85

Declined/Cancelled Contracts

ML18075	City of Orange				\$25,000.00	\$0.00	One Heavy-Duty Vehicle	\$25,000.00	No
MS18013	California Energy Commission				\$3,000,000.00	\$0.00	Advise MSRC and Administer Hydrogen Infr	\$3,000,000.00	No
MS18017	City of Banning				\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS18113	City of Torrance				\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No

Total: 4

Closed Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18011	Southern California Regional Rail Au	2/9/2018	6/30/2018		\$239,565.00	\$221,725.12	Special Train Service to Festival of Lights	\$17,839.88	Yes
Total: 1									

March 1, 2019 Governing Board Meeting

Item 29 - California Air Resources Board Monthly Report

CARB's meeting summary was not available, and therefore, this item was pulled from consideration.

Update on Facility Based Mobile Source Measures

Governing Board Meeting

March 1, 2019

**Commercial
Airports**



**Commercial
Marine Ports**



**New or
Redevelopment
Projects**



**Warehouse
Distribution
Centers**



**Railyard &
Intermodal
Facilities**



Summary of May 2018 Board Direction

Sector	Direction
Airports	Pursue MOUs to implement airport clean air action plans
Ports	Pursue MOUs to implement specific CAAP measures; pursue introduction of cleaner vessels
New/Redevelopment	Continue to work with stakeholders to develop rule concepts and preliminary costs/benefits
Warehouses	Develop rule concept; conduct economic impacts study to inform rule concept
Rail yards	Pursue rulemaking; explore potential for new agreements/MOUs beyond the 1998 and 2005 agreements

Airports

LAX

SNA

BUR

ONT

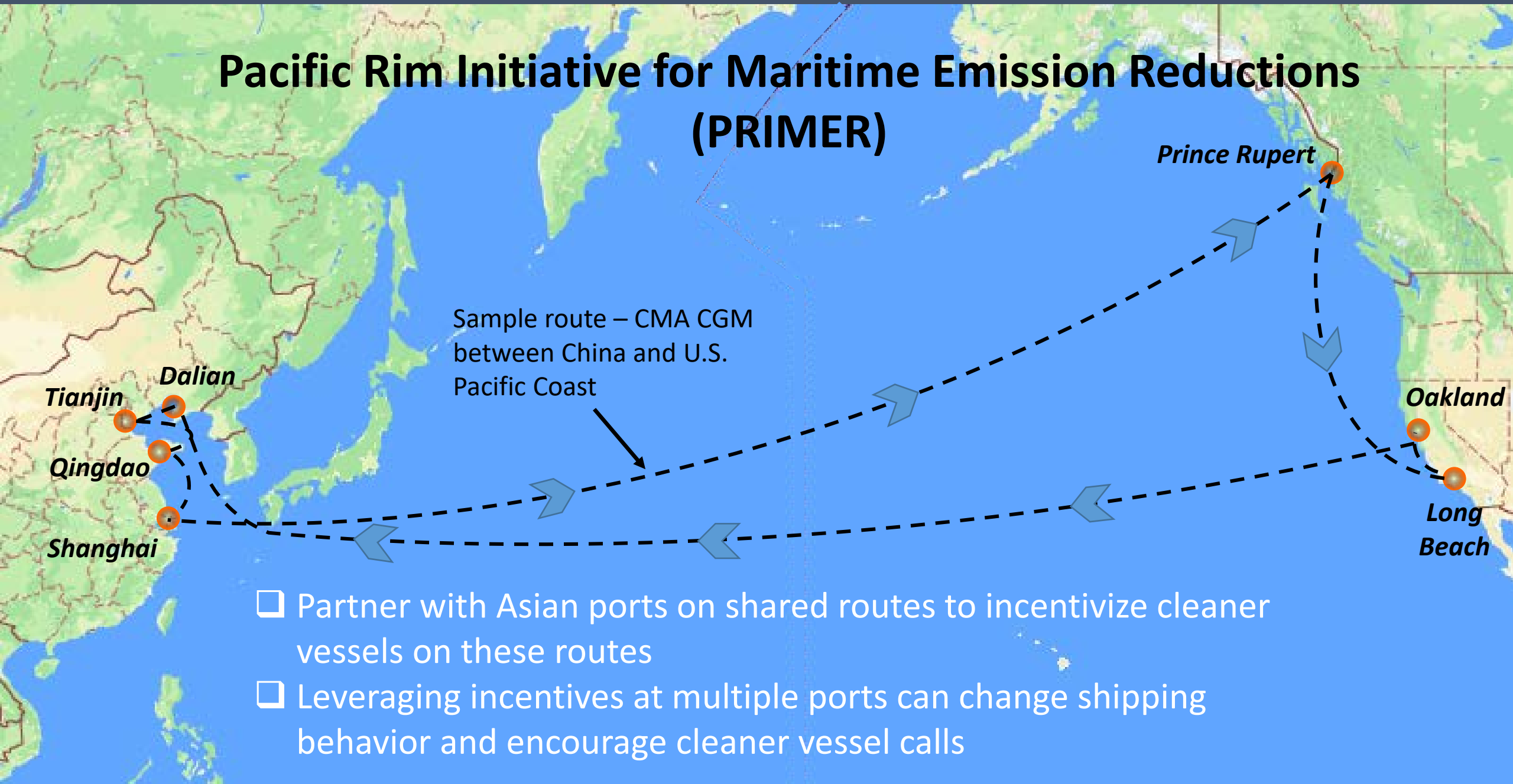
LGB

- Airports are developing respective Air Quality Improvement Plans (AQIPs) and committed to MOU approach
- Staff working with airport consultants to develop emissions inventory methodology
- Working Group meetings planned over the next 7-8 months
- AQIP and MOU adoption by each airport expected by Sep 2019
- Board MOU adoption expected in Nov 2019

Ports

- Ongoing discussions with the Ports on MOU process and framework including meetings between Executive Officers
 - High level agreement on MOU development
 - Still need to develop and agree to specific commitments
 - Established Technical Working Group (TWG) to develop methodologies to quantify emission reductions from CAAP measures
 - Membership from Ports, CARB, EPA, Pacific Merchant Shipping Association, California Trucking Association, and Coalition for Clean Air
- Working group meetings planned next 7-8 months
- MOU adoption by POLA/POLB expected by Sep 2019
- Board adoption expected Nov 2019

Pacific Rim Initiative for Maritime Emission Reductions (PRIMER)



PRIMER Status



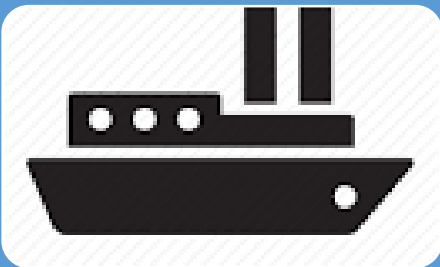
Engagement with China

- August 2018: met with officials from the central government in Beijing and local officials in Hong Kong and Shanghai
- January 2019: met with officials in Shenzhen and presented at International MoVE 2019 Workshop in Chengdu, China



Technical analysis to support the concept

- Data analysis to understand shipping patterns
- Hired consultant for cost-optimization work



Held Technology Forum for OGV retrofits

- Convened engine manufacturers, shipping lines, ports and other stakeholders to discuss retrofit technology
- Secured commitment for a technology demonstration project

New Development and Redevelopment

➤ The Board expressed key concerns about:

- Types of projects affected (e.g. affordable housing projects)
- Effects on real-estate prices
- Job and economic impacts

➤ Based on Board direction, staff:

- Held additional Working Group meetings
- Surveyed the Working Group on investigative approaches to identify emission reduction costs
- Is pursuing an RFP to study the feasibility of emission reductions from construction
 - Planning on releasing draft RFP to the Working Group and holding a Working Group meeting to discuss emission reduction approaches 2nd quarter 2019

New Development and Redevelopment

- Promising emission reduction strategies are being pursued by projects to mitigate CEQA-related air quality impacts
- As an early action, staff is considering voluntary CEQA mitigation programs, for example

CEQA Air Quality Mitigation Fund

Project proponents could voluntarily contribute to a SCAQMD fund that would be used to implement emission reduction projects to reduce a project's regional and/or local impacts.

Update SCAQMD CEQA Mitigation Guidelines

Encourage net-zero developments, clean construction policies, installation of charging/fueling infrastructure, etc.

Warehouse ISR

- Staff exploring potential Indirect Source Rule options
 - Structure of proposed rule
 - Stringency of proposed rule



Menu of Potential ISR Compliance Options

Board-directed economic impact study recently initiated

Research into potential air quality benefits underway

Facility Caps	<ul style="list-style-type: none">• XX% below baseline emissions (<i>SJVAPCD approach</i>)• <XX pounds of emissions per day per facility• <XX pounds of emissions per goods throughput unit or sq. ft.
SOON Program Approach	<ul style="list-style-type: none">• Indirect sources must apply for incentive funds and use them if available (e.g., warehouse operators that own fleets must apply for funding to replace trucks and use it if awarded)
Local Govt. Measure	<ul style="list-style-type: none">• Local govt. programs/ordinances can be put directly into SIP (e.g., ordinance requiring new warehouses install alt. fueling infrastructure)• Similar approach available in Rule 2202
Fleet Crediting Program	<ul style="list-style-type: none">• Clean fleets generate credits managed through a bank and ISR facilities must obtain and retire credit• Potential for localized overlay
Voluntary Fleet Certification Program	<ul style="list-style-type: none">• Fleet owners may certify that fleets are cleaner than required by CARB regulation• Facility owners required to use XX level of certified fleets
Onsite Best Management Practices	<ul style="list-style-type: none">• Utilize ZE/NZE equipment onsite• ZE/NZE fueling/charging infrastructure• Solar/energy storage
Mitigation Fee	<ul style="list-style-type: none">• Pay a mitigation fee if other compliance options not chosen• Collected funds are used to incentivize ZE/NZE equipment

Warehouse ISR – Key Constraints

*“We want a strong ISR,
with zero emissions.”*



Truck Emissions
Must Be Reduced

*“Warehouses don’t
control trucks.”*



Air District Does Not Have
Authority To Directly
Regulate Private Trucks

Warehouse Business Models

- Warehouse operators have variable control over truck fleets coming to their facility
 - Warehouse operator-owned fleet – complete control
 - Warehouse operator-contracted fleets – some control
 - Fleets contracted by cargo owner (not warehouse operator) – minimal control
 - Warehouses do have contractual relationship with cargo owners
- Relationship between warehouse owners, operators, and cargo owners is variable
 - Cargo owners often do not own or operate warehouses holding their goods
 - Warehouse operators often do not own warehouses

ISR Considerations Regarding Warehouse Business Models

- Regulatory options that require warehouse operators to control trucks at their facility may not be implementable, or at the very least, cause significant disruption to industry business model
- Remaining ISR options that don't necessarily require warehouse operators to control trucks:
 - SOON Program Approach
 - Local Government Measures
 - Onsite BMPs
 - **Fleet Crediting Program**
 - **Mitigation Fee**

Likely highest potential for achieving emission reductions from trucks given the diversity of business models

Recent Key Governmental Activities Affecting Heavy Duty Vehicles

Agency	Regulatory Action	Current Proposed Concept/Implemented Requirement	Turns Over Existing Fleet?
EPA	Cleaner Truck Initiative	➤ Rulemaking by 2020?, Implementation by 2024?	No
California	Low NOx Engines	➤ New engines XX% cleaner than 2010 standard ➤ Rule Implementation by 2023	No
	Advanced Clean Trucks	➤ ZEV Mandate for Heavy Duty Trucks ➤ 15% sales by 2030	No
	Innovative Clean Transit	➤ All new bus purchases must be ZE, phased in by 2040	No
	ZE Drayage Trucks	➤ Phase-in transition to ZE drayage at ports ➤ Rule Implementation beginning 2026-2028	Yes
	Financial Incentives	➤ \$100's of millions allocated statewide for early turnover in recent years	Yes
Ports of LA/LB	Clean Truck Program	➤ New rate structure for non-NZE/ZE drayage trucks in 2020, non-ZE in 2035	Yes
Global Examples	Shenzhen, China	➤ Financial incentives provided to convert all 16,000 transit buses to electric	Yes
	London, Milan, Paris	➤ City cordon pricing tied to emissions levels	Yes

ISR IS NOT THE ONLY POTENTIAL DRIVER FOR EXISTING FLEET TURNOVER, BUT IT IS ONE OF THE ONLY PROPOSED NEAR TERM MEASURES THAT COULD AFFECT EXISTING FLEETS

Rail Yards

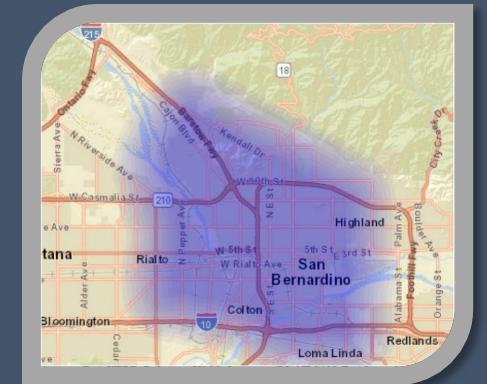
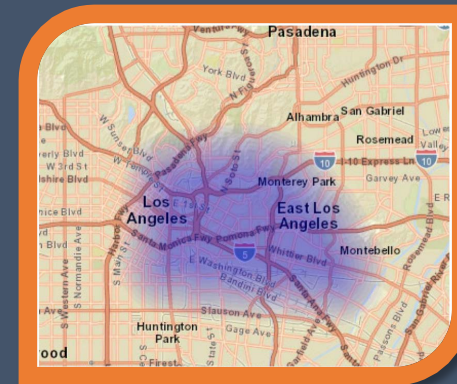
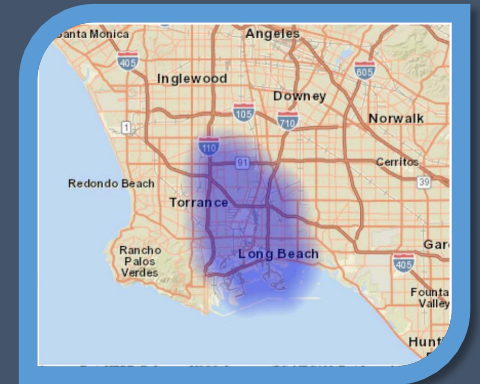
- Staff continuing to research potential indirect source rule and voluntary approaches
- Staff in discussion with both Class 1 railroads to update rail yard-specific emissions inventories
 - Last detailed rail yard inventories prepared using data from 2005
 - Detailed inventories helpful to understand potential opportunities to reduce emissions
- Railroads facilitated staff site visits to four rail yards to understand unique operations at each facility

Intersection Between AB 617 & FBMSM

Indirect sources have been identified as a concern in AB 617 meetings



Warehouses,
rail yards, and
ports all located
in 'Year 1'
AB 617
Communities



Key Elements of AB 617

Summary

AB 617 Overlap



Developing Air Quality Improvement Plans
MOU adoption targeted for November 2019



Agreement regarding MOU framework; still need specific commitments
Established TWG to help quantify expected CAAP emission reductions;
MOU adoption targeted for November 2019
Explore collaboration for cleaner ships in the Pacific Rim



Pursuing RFP to feasibility of emission reduction measure from construction associated with new/redevelopment
Exploring voluntary CEQA air quality mitigation fund concept and updates to CEQA mitigation guidelines



Developed menu of options for ISR; economic impact study underway
Better understanding of warehouse business models and how this could impact various regulatory options
Awareness of other activities also impacting trucks



Staff in discussions with railroads to update emission inventories
Railroads facilitated staff site visits to better understand facility operations

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 31

PROPOSAL: Determine that Proposed Amendments to Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are Exempt from CEQA; Amend Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006

SYNOPSIS: Proposed amendments to the above referenced rules will expand noticing options to include email and web page display for public notices for Clean Air Act permit programs and rulemaking activities. California Senate Bill 1502, drafted in response to SCAQMD's initiative to modernize communication methods, and amendments to the U.S. EPA Code of Federal Regulations enable these changes. The option to deliver invoices to permit holders by email will also be included.

COMMITTEE: Stationary Source, January 18, 2019, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that the proposed amendments to the above referenced rules are exempt from the requirements of the California Environmental Quality Act;
2. Amending Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006; and
3. Adopting "Procedures for Including Electronic Public Notice."

Wayne Nastri
Executive Officer

Background

Based on SCAQMD's concept to modernize public noticing, California Senate Bill (SB) 1502 was approved in June 2018, allowing air districts to electronically mail (email) public notices in lieu of mail for any person who requests noticing by email. SB 1502 also requires air districts to adopt procedures for the public to request public notices to be sent by mail and to update email addresses. Additionally, in October 2016, the U.S. EPA revised the public noticing provisions for Clean Air Act permitting programs (81 Federal Register 71613) requiring electronic noticing (e-noticing), such as posting on a website public notices for permit actions for federal permit programs in lieu of public noticing by newspaper publication. These public noticing provisions also allow for e-noticing as an option for permit actions by permitting authorities implementing EPA-approved programs.

In an effort to streamline and modernize communication methods and implement SB 1502 and U.S. EPA revisions for public noticing of certain permitting programs, a review of all SCAQMD rules was conducted. Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 (Proposed Amended Rules) are administrative amendments to modernize communications and streamline public notifications.

Public Process

Development of the Proposed Amended Rules was conducted through a public process. Over 20,000 stakeholders were invited to participate in a Public Workshop on November 29, 2018. Approximately 25 people participated.

Proposed Amendments

The Proposed Amended Rules are divided into four categories: 1) Public Notifications for New Source Review and Federal Permit Programs; 2) Public Notifications for Rulemaking Activities; 3) Communications for Implementing Fee Rules; and 4) Public Notifications for Offset Program Rules.

The first category of proposed amendments revises public notification procedures for New Source Review and federal permit programs. Proposed Amended Rules 212, 518.2, 1710, 1714, and 3006 remove provisions requiring public notification by newspaper and add requirements to post draft permits and public notices for permit actions on the SCAQMD website.

The second category of proposed amendments implements SB 1502 and revises public notification procedures for rulemaking activities. Proposed Amended Rule 110 allows the SCAQMD to send public notices by email for those electing to receive public notices via email. Currently, the SCAQMD does not have a database of email addresses for public notifications. Over the next several years staff will work with stakeholders to collect email addresses and preferences for email or mail notification. For rulemaking activities, public notices will continue to be sent by mail until a noticing preference for email is registered by that individual. Public notices for Public Workshops and Public

Hearings will continue to be published in newspapers since these requirements were not changed by SB 1502.

The third category of proposed amendments revises communications methods for fee invoices and payment. Proposed Amended Rules 301, 303, 306, 307.1, 309, and 315 allow certain fee invoices to be emailed and expands payment options for these invoices to include electronic payment.

The fourth category of amendments revises public notification procedures for offset program rules to have procedures that are comparable to those used for processing permits with e-noticing. Proposed amendments to Rules 1310, 1605, 1610, 1612, 1620, and 1623 include removing the requirement to conduct public notice by newspaper publishing and replacing the provision with posting public notices on the SCAQMD website.

Consistent with state law, staff has developed procedures to collect and manage noticing preferences from individuals and a mechanism for individuals to provide and update email addresses. The implementation will occur in two phases. Phase I will be a data gathering campaign to collect email addresses and preferences. During Phase I, public notices will be mailed in addition to being emailed. Phase II will continue to collect email addresses and preferences and will remove public noticing by mail for individuals who have requested public noticing by email.

Key Issues

Staff is not aware of any key outstanding issues.

Emission Reductions and Cost Effectiveness Determination

The proposed amendments are administrative in nature and do not significantly affect air quality and do not establish an emission limit or standard, and therefore, there are no emission reductions or cost effectiveness determination.

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to the rules identified above (the proposed project) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the proposed changes are administrative and procedural in nature and would not cause any physical changes that would affect any environmental topic area, staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the proposed project is approved, the Notice of

Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

Socioeconomic Analysis

The amendments proposed are administrative in nature and will not impose any additional costs to facilities or result in other socioeconomic impacts. The proposed amendments do not significantly affect air quality and do not establish an emission limit or standard, and therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

AQMP and Legal Mandates

Pursuant to Health & Safety Code Section 40460(a), the SCAQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. The SCAQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. The proposed amendments are not control measures in the 2016 AQMP.

Resource Impacts

Existing staff resources are adequate to implement the proposed amendments.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F1-18. Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006
- G. Final Staff Report
- H. Notice of Exemption from the California Environmental Quality Act for Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006
- I. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006

Proposed Amended Rules 212, 518.2, 1710, 1714, and 3006

- Remove provisions requiring public notification by newspaper
- Add requirements to post draft permits and public notices for permit actions on the SCAQMD website

Proposed Amended Rule 110

- Add option to send public notices for rulemaking activities by email or other electronic means

Proposed Amended Rules 301, 303, 306, 307.1, 309, and 315

- Add option to send fee invoices by email or other electronic means
- Add option for electronic payment of certain fee invoices

Proposed Amended Rules 1310, 1605, 1610, 1612, 1620, and 1623

- Remove provisions requiring public notification by newspaper
- Add requirement to post public notices on the SCAQMD website

Procedures for Including Electronic Public Notice

- Phase I: Begin data gathering campaign to collect email addresses and preferences and begin public notifications by email in addition to by mail
- Phase II: Continue to collect email addresses and preferences and remove public noticing by mail for individuals who have requested public noticing by email

ATTACHMENT B

KEY ISSUES AND RESPONSES

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006
Staff is not aware of any key outstanding issues.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006



Five (5) months spent in rule development.

One (1) Public Workshop.

One (1) Stationary Source Committee Meeting.

ATTACHMENT D

KEY CONTACTS LIST

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605,
1610, 1612, 1620, 1623, 1710, 1714, and 3006

AECOM
C&R Body Shop Inc.
California Small Business Alliance
City of Riverside
Complete Coach Works
Emerald Transformer
Interspace Battery
Jimenez Body Works
Los Angeles County
Marathon Petroleum
Pasadena Unified School District
San Gabriel Transit, Inc.
Southern California Air Quality Alliance
Southern California Gas Company
Tesla

ATTACHMENT E

RESOLUTION NO. 19-____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) determining that Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the SCAQMD Governing Board amending Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006.

WHEREAS, the SCAQMD Governing Board finds and determines that Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are considered a "project" pursuant to CEQA per CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of the proposed project pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD Governing Board finds and determines that after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that the proposed project is determined to be exempt from CEQA; and

WHEREAS, the SCAQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that the proposed project may have any significant adverse effects on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered By General Rule; and

WHEREAS, SCAQMD staff has prepared a Notice of Exemption for the proposed project, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, the proposed amended rules and supporting documentation, including but not limited to, the Notice of Exemption, the Final Staff Report, and this March 1, 2019 Board Letter, were presented to the SCAQMD Governing Board and the SCAQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that the modifications to the proposed amended rules since the notice of public hearing was published add clarity that meets the same air quality objective and are not so substantial as to significantly affect the meaning of the proposed amended rules within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rules, (c) the changes are consistent with the information contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the proposed project is exempt from CEQA; and

WHEREAS, the proposed amended rules will be not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted a Public Workshop regarding the proposed amendments on November 29, 2018; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that the proposed amended rules are needed to comply with California Senate Bill 1502 and 81 Federal Register 71613; to facilitate emailing and electronic noticing of public notices; to allow for emailing of fee invoices and electronic payment of certain fee invoices; and to increase public engagement and communication efficiency; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 39002, 39650 et. seq., 40000, 40440, 40441, 40506, 40702, 40709, 40725 through 40728, 41508, 42300 et. seq., and 44380 et. seq. of the Health and Safety Code; and

WHEREAS, California Senate Bill 1502 updated the California Health and Safety Code by adding Section 40006 and amending Section 42301.6 to authorize air districts to send public notices required pursuant to California Health and Safety Code Sections 40440.5 and 40440.7 electronically in lieu of by mail and to require air districts to adopt procedures for the public to request public notices to be sent by mail and to update email addresses and preferences; and

WHEREAS, U.S. EPA permitting procedures in the Code of Federal Regulations require electronic noticing of public notices for permit actions for federal permit programs; require electronic accessibility to the draft permit; and allow electronic noticing of EPA-approved permit program actions in lieu of newspaper publication; and

WHEREAS, the SCAQMD Governing Board has determined that the proposed amended rules are written or displayed so that the meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that the proposed amended rules are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the SCAQMD Governing Board has determined that the proposed amended rules will not impose the same requirements as any existing state or federal regulations. The amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, SCAQMD; and

WHEREAS, the SCAQMD Governing Board, in amending the proposed amended rules, references the following statutes which the SCAQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40001, 40506, 40006, 40702, 40709, 40713, 40440(a), 40725 through 40728.5, and 41511; and

WHEREAS, the SCAQMD Governing Board finds that the proposed amended rules do not significantly affect air quality or emissions limitations, and do not impose new controls, and therefore a Socioeconomic Impact Analysis pursuant to Health and Safety Code Section 40440.8, 40728.5, or 40920.6 is not required; and

WHEREAS, the SCAQMD included “Procedures for Including Electronic Public Notice” as Appendix 1 of the Final Staff Report to comply with Health and Safety Code Section 40006(c).

WHEREAS, the SCAQMD specifies that the Planning and Rules Manager of the proposed amended rules is the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of these proposed amendments is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

WHEREAS, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725 and 40440.5; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all applicable provisions of state and federal law.

NOW, THEREFORE BE IT RESOLVED, that the SCAQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed amended rules are exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered By the General Rule. This information was presented to the SCAQMD Governing Board, whose members reviewed, considered, and approved the information therein prior to acting on the proposed amended rules; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, the proposed amended rules as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt “Procedures for Including Electronic Public Notice” to comply with Health and Safety Code Section 40006(c).

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT F1

(Adopted September 11, 1987)(Amended August 5, 1988)
(Amended October 7, 1988)
(PAR 110 – February 12, 2019)

PROPOSED AMENDED RULE 110. RULE ADOPTION PROCEDURES TO ASSURE PROTECTION AND ENHANCEMENT OF THE ENVIRONMENT

- (a) In addition to providing the public notice of District Board meetings and hearings as required by Health and Safety Code Section 40725, the District shall consult with state and local governmental agencies having jurisdiction by law with respect to the subject matter of a proposed rule or regulation, and public notice shall be sent by mail, electronic mail, or other electronic means, mailed to all persons who have requested such notice in writing. For informational purposes, public notice may be posted on the District public website and may be provided to newspapers of general circulation, to all persons believed to be interested in the proceeding, and to the State Clearinghouse for circulation to public agencies.
- (b) Prior to holding a public hearing to adopt, rescind, or amend a rule or regulation of the District, a staff report shall be prepared and published by the staff of the District. The staff report shall be published at least 30 days prior to the date of the public hearing. Staff reports shall be available for public review and comment, and shall be distributed to the California Air Resources Board, the Environmental Protection Agency, the State Clearinghouse, and to all other persons who have requested such report.
- (c) It is the policy of the District to utilize an interdisciplinary approach as set forth in the District's CEQA implementation guidelines adopted by the District Board pursuant to Public Resources Code Section 21082 to prepare staff reports in a manner consistent with the environmental protection purpose of the District's regulatory program and with the goals and policies of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.). All staff reports shall contain, among other things, a description of the proposed action, an assessment of the anticipated significant long- or short-term adverse and beneficial environmental impacts associated with the proposed action, and a succinct analysis of those impacts. The analysis shall address feasible mitigation measures and feasible

alternatives to the proposed action which would substantially reduce any significant adverse impact(s) identified.

- (d) If comments are received during the evaluation process which raise significant environmental issues associated with the proposed action, the staff shall summarize and respond to the comments either orally at the public hearing, or in a supplemental written report. Prior to taking final action on any proposal for which significant environmental issues have been raised, the District Board shall approve a written response to each such issue.
- (e) Any action or proposal for which significant adverse environmental impacts have been identified during the review process shall not be approved or adopted as proposed if there are feasible mitigation measures or feasible alternatives available which would substantially reduce such adverse impact. For the purposes of this subparagraph, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors, and consistent with the District's statutory authority and with federal and state laws and regulations.
- (f) ~~Public Notice~~ Notice of final action and the written response to significant environmental issues raised shall be filed with the Secretary of the Resources Agency for public inspection.

ATTACHMENT F2

(Adopted January 9, 1976)(Amended July 6, 1984)(Amended May 17, 1985)
(Amended May 1, 1987)(Amended July 10, 1987)(Amended March 3, 1989)
(Amended June 28, 1990)(Amended September 6, 1991)(Amended August 12, 1994)
(Amended December 7, 1995)(Amended November 14, 1997)(Amended June 5, 2015)
(PAR 212 – February 12, 2019)

PROPOSED AMENDED RULE 212. STANDARDS FOR APPROVING PERMITS AND ISSUING PUBLIC NOTICE

- (a) The Executive Officer shall deny a Permit to Construct or a Permit to Operate, except as provided in Rule 204, unless the applicant shows that the equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting air contaminants in violation of provisions of Division 26 of the State Health and Safety Code or of these rules.
- (b) If the Executive Officer finds that the equipment has not been constructed in accordance with the permit and provides less effective air pollution control than the equipment specified in the Permit to Construct, he shall deny the Permit to Operate.
- (c) Prior to granting a Permit to Construct or permit modification for a project requiring notification, all addresses within the area described in subdivision (d) of this rule shall be notified of the Executive Officer's intent to grant a Permit to Construct or permit modification at least 30 days prior to the date action is to be taken on the application. For the purpose of this rule, a project requiring notification is:
 - (1) any new or modified permit unit, source under Regulation XX, or equipment under Regulation XXX that may emit air contaminants located within 1000 feet from the outer boundary of a school. This subdivision shall not apply to a modification of an existing facility if the Executive Officer determines that the modification will result in a reduction of emissions of air contaminants from the facility and no increase in health risk at any receptor location. (This paragraph shall not apply to modifications that have no potential to affect emissions.); or,

- (2) any new or modified facility which has on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of this rule; or
- (3) any new or modified permit unit, source under Regulation XX, or equipment under Regulation XXX with increases in emissions of toxic air contaminants, for which the Executive Officer has made a determination that a person may be exposed to:
 - (A) a maximum individual cancer risk greater than, or equal to:
 - (i) one in a million (1×10^{-6}), per guidelines published by the Executive Officer under Rule 1401 (e), for facilities with more than one permitted unit, source under Regulation XX, or equipment under Regulation XXX, unless the applicant demonstrates to the satisfaction of the Executive Officer that the total facility-wide maximum individual cancer risk is below ten in a million (10×10^{-6}) using the risk assessment procedures and toxic air contaminants specified under Rule 1402; or,
 - (ii) ten in a million (10×10^{-6}), per guidelines published by the Executive Officer under Rule 1401 (e), for facilities with a single permitted unit, source under Regulation XX, or equipment under Regulation XXX; or
 - (B) quantities or concentrations of other substances that pose a potential risk of nuisance.

Unless otherwise stated, toxic and potentially toxic air contaminants are substances listed in Table I of Rule 1401 and their cancer risk shall be evaluated using Rule 1401 risk assessment procedures. Toxic air contaminants may also include other substances determined by the Executive Officer to be potentially toxic. Paragraph (c)(2) of this rule shall not apply if the Executive Officer determines that modifications to the existing facility will not result in an increase in health risk at any receptor location.

- (d) Except as provided for in subdivision (g) of this rule, the notification of the proposed construction of a project specified under subdivision (c) of this rule, which is to be prepared by the District, is to contain sufficient detail to fully describe the project. The applicant shall provide verification to the Executive Officer that

public notice has been distributed as required by this subdivision. In the case of notifications performed under paragraphs (c)(2) and (c)(3) of this rule, the applicant for the Permit to Construct or permit modification shall be responsible for the distribution of the public notice to each address within a 1/4 mile radius of the project or such other area as determined appropriate by the Executive Officer. In the case of notifications performed under paragraph (c)(1) of this rule, distribution of the public notice shall be to the parents or legal guardians of children in any school within 1/4 mile of the facility and the applicant shall provide distribution of the public notice to each address within a radius of 1000 feet from the outer property line of the proposed new or modified facility. ~~Distribution may be made by mail, electronic mail, or other electronic means as determined by the Executive Officer.~~

- (e) Any person may file a written request for ~~public~~ notice of any decision or action pertaining to the issuance of a Permit to Construct. The Executive Officer shall provide ~~mailed public~~ notice by mail, electronic mail, or other electronic means, of such decision or action to any person who has filed a written request for ~~public~~ notification. Requests for ~~public~~ notice shall be filed pursuant to procedures established by the Executive Officer. The ~~public~~ notice shall be sent by mail, electronic mail, or other electronic means, ~~mailed~~ at the time that the Executive Officer notifies the permit applicant of the decision or action. The period to appeal, as specified in subdivision (b) of Rule 216, shall commence on the third day following mailing or electronic transmission of the ~~public~~ notice pursuant to this subdivision. The requirements for public notice pursuant to this subdivision are fulfilled if the Executive Officer makes a good faith effort to follow procedures established pursuant to this subdivision for giving ~~public~~ notice and, in such circumstances, failure of any person to receive the ~~public~~ notice shall not affect the validity of any permit subsequently issued by the Executive Officer.
- (f) An application for a Permit to Operate, for a permit unit installed or constructed without a required Permit to Construct, shall be subject to the requirements of this rule.
- (g) For new or modified sources subject to Regulation XIII, RECLAIM facilities, or Outer Continental Shelf (OCS) facilities located within 25 miles of the State's seaward boundary and for which the District has been designated as the corresponding onshore area (COA), which undergo construction or modifications

resulting in an emissions increase exceeding any of the daily maximums specified as follows:

<u>Air Contaminant</u>	<u>Daily Maximum</u> <u>in lbs per Day</u>
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM ₁₀	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

The process for public notification and comment shall include all of the applicable provisions of 40 Code of Federal Regulations (CFR) Part 51, Section 51.161(b), and 40 CFR Part 124, Section 124.10. The federal public notice and comment procedures for these facilities require that the public notice be distributed to the broadest possible scope of interested parties, and include at a minimum:

- (1) Availability of information submitted by the owner or operator and of District analyses of the effect on air quality for public inspection ~~on the District public website or~~ in at least one location in the area affected. This requirement may be met by making these materials available at a physical location or on the District public website;
- (2) Posting of the public notice on the District public website for the duration of the public comment period. Each public notice posting shall include: the public notice, notice of public comment, the draft permit, and information on how to access the administrative record for the draft permit. The public notice or a link to the public notice will be placed on a web page that is dedicated to listing all public notices under this provision; ~~Notice by prominent advertisement in the area affected of the location of the source information and the District's analyses of the effect on air quality~~
- (3) Mailing a copy of the ~~public~~ notice required in paragraph (g)(2) of this rule to the following persons: The applicant, the Administrator of U.S. EPA through Region 9, the Air Resources Board, affected local air pollution control districts, the chief executives of the city and county or the onshore area that is geographically closest to where the major stationary source or major modification would be located, any comprehensive regional land use planning agency, and State, Federal Land Manager, or Indian Governing

Body whose lands may be affected by emissions from the regulated activity;
and,

- (4) A 30-day period for submittal of public comments.
- (h) The Executive Officer may combine public notices to avoid duplication provided that all required public notice requirements are satisfied.

ATTACHMENT F3

(Adopted Feb. 4, 1977)(Amended May 27, 1977)(Amended Jan. 6, 1978)
(Amended June 16, 1978)(Amended April 4, 1980)(Amended Sept. 5, 1980)
(Amended June 5, 1981)(Amended July 9, 1982)(Amended Dec. 3, 1982)
(Amended June 3, 1983)(Amended May 4, 1984)(Amended July 6, 1984)
(Amended Nov. 2, 1984)(Amended Dec. 6, 1985)(Amended May 1, 1987)
(Amended June 3, 1988)(Amended December 2, 1988)(Amended January 6, 1989)
(Amended June 2, 1989)(Amended June 1, 1990)(Amended June 7, 1991)
(Amended December 6, 1991)(Amended June 5, 1992)(Amended July 10, 1992)
(Amended June 11, 1993)(Amended October 8, 1993)(Amended June 10, 1994)
(Amended May 12, 1995)(Amended October 13, 1995)(Amended May 10, 1996)
(Amended May 9, 1997)(Amended May 8, 1998)(Amended June 12, 1998)
(Amended May 14, 1999)(Amended May 19, 2000)(Amended May 11, 2001)
(Amended May 3, 2002)(Amended June 6, 2003)(Amended July 9, 2004)
(Amended June 3, 2005)(Amended June 9, 2006)(Amended May 4, 2007)
(Amended May 2, 2008)(Amended June 5, 2009)(Amended May 7, 2010)
(Amended May 6, 2011)(Updated July 1, 2012)(Updated July 1, 2013)
(Amended June 6, 2014)(Amended May 1, 2015)(Updated July 1, 2016)
(Amended June 2, 2017)(Amended January 5, 2018)(Amended May 4, 2018)
(PAR 301 – February 12, 2019)

Effective July 1, 2018

PROPOSED AMENDED RULE 301. PERMITTING AND ASSOCIATED FEES

(a) **Applicability**

California Health and Safety Code Section 40510 provides authority for the South Coast Air Quality Management District to adopt a fee schedule for the issuance of permits to cover the cost of evaluation, planning, inspection, and monitoring related to that activity. This rule establishes such a fee schedule and requires that fees be paid for:

- (1) Permit processing for Facility Permits [see subdivisions (l), (m), and (n)], Facility Registrations [see subdivision (t)], and Permits to Construct and/or Permits to Operate equipment (submitted pursuant to Regulation II) that may cause air pollution or equipment intended to control air pollution [see subdivision (c)].
- (2) Processing of applications for banking emission reduction credits; change of title of emissions reduction credits; alteration/modification of emission reduction credits; retirement of short term emission reduction credits for transfer into Rule 2202; and the transfer of ERCs out of Rule 2202 pursuant

to Rule 2202 (h)(4); or conversion of emissions reduction credits, mobile source credits, or area source credits to short term emission reduction credits, pursuant to Regulation XIII [see paragraphs (c)(4) and (c)(5)].

- (3) Annual operating permit renewal fee [see subdivision (d)].
- (4) Annual operating permit emissions fee [see subdivision (e)] or Regional Clean Air Incentives Market (RECLAIM) Trading Credits (RTCs) [see subdivision (l)].
- (5) Duplicate and reissued permits [see subdivision (f)].
- (6) Reinstating expired applications or permits [see subdivision (g)].
- (7) Reinstating revoked permits [see subdivision (h)].
- (8) RECLAIM Transaction Registration Fee [see subdivision (l)].
- (9) Non-Tradeable Allocation Credit Mitigation Fee [see subdivision (l)].
- (10) Environmental Impact Analysis, Air Quality Analysis, Health Risk Assessment, Public Notification for Projects and Emission Reduction Credits (pursuant to Regulation XIII - New Source Review) [see paragraph (c)(4) and subdivision (j) of this rule].
- (11) Asbestos demolition and renovation activities [see subdivision (o)].
- (12) Lead abatement activities [see subdivision (p)].
- (13) Evaluation of permit applications submitted for compliance under a National Emission Standard for Hazardous Air Pollutants (NESHAP) [see subdivision (q)].
- (14) Certification of Clean Air Solvents [see subdivision (r)].

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) ALTERATION or MODIFICATION means any physical change, change in method of operation of, or addition to, existing equipment requiring an application for Permit to Construct pursuant to Rule 201. Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:
 - (A) An increase in the production rate, unless such increase will cause the maximum design capacity of the equipment to be exceeded; or
 - (B) An increase in the hours of operation.
- (2) ALTERNATIVE OPERATING CONDITION is an order established by the Hearing Board pursuant to subdivision (e) of this rule which, if recognized by the United States Environmental Protection Agency,

authorizes a source to be operated in a specified manner that would otherwise not comply with an applicable requirement of the State Implementation Plan or a permit term or condition based on any such applicable requirement.

- (3) BANKING means the process of recognizing and certifying emission reductions and registering transactions involving emission reduction credits.
- (4) CANCELLATION is an administrative action taken by the District which nullifies or voids a previously pending application for a permit.
- (5) CERTIFIED EQUIPMENT PERMIT means a permit issued to a manufacturer or distributor for a specific model or series of models of equipment. By this permit, the District certifies that the equipment meets all District rules and Best Available Control Technology (BACT) requirements under a set of conditions. Eligibility for the certification process shall be limited to equipment for which the following conditions exist, as determined by the Executive Officer:
 - (A) Equipment operation and emission characteristics will be applicable to a number of identical pieces of equipment;
 - (B) Permitting can be accomplished through the use of identical permit conditions for each piece of equipment regardless of use or location;
 - (C) The equipment is exempt from emission offsets as defined in Rule 1304(a)(4) or Rule 1304(a)(5); or the emissions of each criteria pollutant, except lead, are determined to be less than the limits listed in Rule 1303, Appendix A, Table A-1; and
 - (D) The equipment does not emit lead or the toxic emissions do not result in a Maximum Individual Cancer Risk (MICR) equal to or greater than one in a million as calculated according to Rule 1401.Certified Equipment Permit shall be valid for one year, and shall be renewed annually if the Executive Officer determines the equipment meets all District rules and BACT requirements. Certification shall not relieve the person constructing, installing or operating the equipment from the requirement to obtain all necessary permits to construct and permits to operate, or from compliance with any other District rule including the requirements of Regulation XIII.
- (6) CHANGE OF CONDITION means a change of a current permit condition that will not result in an emission increase. Any request for a Change in Condition to a previously enforceable permit condition that will result in a

emission increase subject to the New Source Review Rules in Regulation XIII, XIV, or XX will be considered a change in the method of operation and processed as an Alteration or Modification.

- (7) CLEAN AIR SOLVENT is as defined in Rule 102 as “Clean Air Solvent”.
- (8) CLEAN AIR SOLVENT CERTIFICATE is as defined in Rule 102 as “Clean Air Solvent Certificate”.
- (9) CONFINED ANIMAL FACILITY (CAF) means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including but not limited to, cattle, calves, horses, sheep, goats, swine, rabbits, chickens, turkeys, or ducks corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (10) CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) is a system comprised of components that continuously measure all parameters necessary to determine pollutant concentration or pollutant mass emissions, pursuant to a District rule or regulation.
 - (A) For the purpose of this rule, a CEMS includes, but is not limited to, the following analyzers, monitors, components, systems, or equipment:
 - (i) Pollutant concentration analyzer(s) (e.g., NO_x, SO_x, CO, Total Sulfur) and associated sample collection, transport, and conditioning equipment, and data acquisition and logging systems,
 - (ii) Diluent gas analyzer (O₂ or CO₂),
 - (iii) Flow monitor (direct in-stack measurement or indirectly calculated from fuel usage or other process parameters approved by the Executive Officer), and
 - (iv) Other equipment (e.g., moisture monitor) as required to comply with monitoring requirements.
 - (B) For the purpose of this rule, a “time-shared CEMS” means a CEMS as described in paragraph (j)(5) which is common to several sources of emissions at the same facility.
 - (C) For the purpose of this rule, a “Fuel Sulfur Monitoring System” or “FSMS” may be used as an alternative to a CEMS SO_x monitoring

requirement, subject to District Rules and Regulations, and the approval of the Executive Officer. An FSMS is a total sulfur monitoring system configured similar to the CEMS described in paragraph (j)(5) but, as an alternative to directly monitoring SO_x emissions at sources required to have SO_x CEMS (at the same facility), SO_x emission information at each affected source is determined “indirectly” by monitoring the sulfur content of the fuel gas supply firing the affected sources.

- (D) For the purpose of this rule, an “Alternative Continuous Emissions Monitoring System” or “ACEMS” (also known as a “Predictive or Parametric Emissions Monitoring System” or “PEMS”) may be used as an alternative to a CEMS pollutant monitoring requirement, subject to District Rules and Regulations, and the approval of the Executive Officer. Instead of directly monitoring the pollutant emissions at a source required to have a CEMS as in paragraph (j)(5), emission information is “predicted” by the ACEMS or PEMS by monitoring key equipment operating parameters (e.g., temperature, pressure) at the affected source, irrespective of exhaust gas or fuel supply analysis.
- (11) EMISSION FACTOR means the amount of air contaminant emitted per unit of time or per unit of material handled, processed, produced, or burned.
- (12) EMISSION REDUCTION CREDIT (ERC) means the amount of emissions reduction which is verified and determined by the Executive Officer to be eligible for credit in an emissions reduction bank.
- (13) EMISSION SOURCE is any equipment or process subject to Rule 222. The source does not require a permit, but the owner/operator is required to file information pursuant to Rule 222 and Rule 301(t).
- (14) EQUIPMENT means any article, machine, or other contrivance, or combination thereof, which may cause the issuance or control the issuance of air contaminants, and which:
 - (A) Requires a permit pursuant to Rules 201 and/or 203; or
 - (B) Is in operation pursuant to the provisions of Rule 219
- (15) EXPIRATION means the end of the period of validity for an application, Permit to Operate, or a temporary Permit to Operate.
- (16) FACILITY means any source, equipment, or grouping of equipment or sources, or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical

contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or persons under common control) or an outer continental shelf (OCS) source as defined in 40 CFR § 55.2. Such above-described groupings, if on noncontiguous properties but connected only by land carrying a pipeline, shall not be considered one facility. Equipment or installations involved in crude oil and gas production in Southern California coastal or OCS waters, and transport of such crude oil and gas in Southern California coastal or OCS waters, shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas facility on-shore.

- (17) FACILITY PERMIT is a permit which consolidates existing equipment permits and all new equipment at a facility, into one permit. A facility permit may be issued pursuant to Regulation XX and/or XXX.
- (18) FACILITY REGISTRATION is a permit which consolidates existing equipment permits and all new equipment at a facility into one permit. A Facility Registration may be issued at District discretion to any facility not subject to Regulation XX or XXX.
- (19) GREENHOUSE GAS or “GHG” means carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs).
- (20) IDENTICAL EQUIPMENT means any equipment which is to be operated by the same operator, and have the same equipment address, and have the same operating conditions and processing material to the extent that a single permit evaluation would be required for the set of equipment. Portable equipment, while not operating at the same location, may qualify as identical equipment.
- (21) NON-ROAD ENGINE is a portable engine that requires a permit and is certified by the Executive Officer to be a Non-Road Engine regulated by U.S. EPA pursuant to 40 CFR Part 89.
- (22) PREMISES means one parcel of land or contiguous parcels of land under the same ownership or entitlement to use, not including the parcels which are remotely located and connected only by land carrying a pipeline.
- (23) QUALIFYING PORTABLE ENGINE is a portable engine that requires a permit and is certified by the Executive Officer to meet all the requirements of Non-Road Engine of 40 CFR Part 89 except date of manufacture, and has been demonstrated to meet the emission limitations of 40 CFR Section 89.112-96.

- (24) RECLAIM TRADING CREDITS (RTCs) means the amount of emissions credit available to a facility for use at the facility for transfer or sale to another party. Each RTC has a denomination of one pound of RECLAIM pollutant and a term of one year, and can be issued as part of a facility's Annual Allocation or alternatively in the form of an RTC certificate.
- (25) REGISTRATION PERMIT means a permit to construct or permit to operate issued to an owner/operator of equipment which has previously been issued a Certified Equipment Permit by the District. The owner/operator shall agree to operate under the conditions specified in the Certified Equipment Permit.
- (26) RELOCATION means the removal of an existing source from one parcel of land in the District and installation on another parcel of land where the two parcels are not in actual physical contact and are not separated solely by a public roadway or other public right-of-way.
- (27) REVOCATION is an action taken by the Hearing Board following a petition by the Executive Officer which invalidates a Permit to Construct or a Permit to Operate.
- (28) SMALL BUSINESS is as defined in Rule 102 as "Small Business."
- (29) SPECIFIC ORGANIC GASES are any of the following compounds:
 - trifluoromethane (HFC-23)
 - chlorodifluoromethane (HCFC-22)
 - dichlorotrifluoroethane (HCFC-123)
 - tetrafluoroethane (HFC-134a)
 - dichlorofluoroethane (HCFC-141b)
 - chlorodifluoroethane (HCFC-142b)
 - 1,1,1-trifluoroethane (HFC-143a)
 - 1,1-difluoroethane (HFC-152a)
 - cyclic, branched, or linear, completely fluorinated alkanes
 - cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
 - cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
 - sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (30) SOURCE means any grouping of equipment or other air contaminant-emitting activities which are located on parcels of land within the District, in actual physical contact or separated solely by a public roadway or other

public right-of-way, and are owned or operated by the same person or by persons under common control. Such above-described groupings, if remotely located and connected only by land carrying a pipeline, shall not be considered one stationary source. (Under RECLAIM, a SOURCE is any individual unit, piece of equipment or process which may emit an air contaminant and which is identified, or required to be identified, in the RECLAIM Facility Permit).

- (31) STREAMLINED STANDARD PERMIT means a permit issued for certain types of equipment or processes commonly permitted by SCAQMD with pre-set levels of controls and emissions. The operating conditions and other qualifying criteria are pre-determined by the SCAQMD and provided to the permit applicant in the permit application package for concurrence.
- (32) STATEWIDE EQUIPMENT is equipment with a valid registration certificate issued by CARB for the Statewide Portable Equipment Registration Program.
- (33) TEMPORARY PERMIT TO OPERATE represents interim authorization to operate equipment until the Permit to Operate is granted or denied. A temporary Permit to Operate is not issued by the District but may exist pursuant to Rule 202.

(c) Fees for Permit Processing

(1) Permit Processing Fee

(A) Permit Processing Fee Applicability

Except as otherwise provided in this rule, every applicant who files an application for a Permit to Construct, Permit to Operate, Facility Permit, court judgments in favor of the District and administrative civil penalties or a revision to a Facility Permit, shall, at the time of filing, pay all delinquent fees associated with the facility and shall pay a permit processing fee.

- (i) Except as otherwise provided in this paragraph, the permit processing fee shall be determined in accordance with the schedules (set forth in Table FEE RATE-A) at the time the application is deemed complete.
- (ii) A person applying for permits for relocation of equipment shall pay fees in accordance with the schedules set forth in Table FEE RATE-A at the time the application is deemed complete. All fees due, within the past 3 years, from the

previous facility for equipment for which a Change of Location application is filed, and all facility-specific fees (such as “Hot Spots” fees), must be paid before the Change of Location application is accepted.

- (iii) A person applying for permits for any equipment/process not otherwise listed in Table IA or Table IB shall pay the fees associated with Schedule C. Prior to the issuance of a permit, these fees are subject to adjustment, as necessary.
- (iv) In the event a Permit to Construct expires under the provisions of Rule 205, and the applicable rules, regulations, and BACT for that particular piece of equipment have not been amended since the original evaluation was performed, the permit processing fee for a subsequent application for a similar equipment shall be the fee established in the Summary Permit Fee Rates - Change of Operator table according to the applicable schedule under the Change of Operator category, provided the subsequent application is submitted within one (1) year from the date of expiration of either the Permit to Construct, or an approved extension of the Permit to Construct.

(B) Notice of Amount Due and Effect of Nonpayment

For fees due upon notification, such notice may be given by personal service ~~or by deposit, postpaid, in the United States~~ or sent by mail, electronic mail, or other electronic means, and shall be due thirty (30) days from the date of personal service, ~~or mailing, or electronic transmission~~. For the purpose of this subparagraph, the fee payment will be considered to be received by the District if it is delivered, ~~postmarked by the United States Postal Service, or electronically paid~~ on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date. Nonpayment of the fee within this period of time will result in expiration of the application and voiding of the Permit to Construct or Permit to Operate. No further applications will be accepted from

the applicant until such time as overdue permit processing fees have been fully paid. If an application is canceled, a permit processing fee will be charged if evaluation of the application has been initiated.

(C) Higher Fee for Failing to Obtain a Permit

(i) When equipment is operated, built, erected, installed, altered, or replaced (except for replacement with identical equipment) without the owner/operator first obtaining a required Permit to Construct or Permit to Operate, the permit processing fee shall be 150 percent (150%) of the amount set forth in Table FEE RATE-A unless the applicant is a Small Business as defined in this provision and the facility has no prior permit applications, Permit to Construct or Permit to Operate (as evidenced by a facility identification number) with the District in which case the permit processing fee shall be the amount set forth in Table FEE RATE-A. If a facility has been issued a Notice of Violation (NOV), there shall be no waiver of the higher fee. The applicant shall also remit annual operating fees for the source for a full three (3) years, or the actual years of operation if less than three (3) years. The assessment of such fee shall not limit the District's right to pursue any other remedy provided for by law. Fees are due and payable within thirty (30) days of receipt of notification. [See subparagraph (c)(2)(B).] However, the higher fee shall be waived if the application is being submitted for equipment that was previously permitted (issued either a Permit to Construct or a Permit to Operate) but had expired due to non-payment of fees, provided the application is submitted within one (1) year of the expiration date, and that permit is reinstatable under subdivision (g) of this rule.

(ii) For purposes of assessing a higher fee for failing to obtain a permit only, small business shall be defined as a business which is independently owned and operated and not an affiliate of a non-small business entity and meets the following criteria:

- (A) If a non-manufacturer, the number of employees is 25 or less and the total gross annual receipts are \$1,000,000 or less; or
 - (B) If a manufacturer, the number of employees is 50 or less and the total gross annual receipts are \$5,000,000 or less, or
 - (C) Is a not-for-profit training center.
- (iii) This clause shall apply to applications for a Permit to Operate for equipment already constructed without first obtaining a required Permit to Construct. If, at the time the Permit to Operate is granted or denied, it is determined that any annual operating permit fee as provided in subdivision (d) of this rule had been based on incorrect information, the applicant will be billed for or credited with the difference, as appropriate.
- (D) **Small Business**
When applications are filed in accordance with the provisions of subparagraphs (c)(1)(A), (c)(1)(G)(i), (c)(1)(C) or paragraph (c)(3) for a Small Business as defined in Rule 102 – Definition of Terms, the fees assessed shall be fifty percent (50%) of the amount set forth in Table FEE RATE-A.
- (E) **Fees for Permit Processing for Identical Equipment and Processing of Applications for Short Term Emission Reduction Credits**
When applications are submitted in accordance with the provisions of subparagraphs (c)(1)(A), (c)(1)(C), (c)(1)(D), (c)(1)(H), paragraphs (c)(3) or (c)(4) concurrently for identical equipment, or for change of title or alteration/modification of short term emission reduction credits, full fees for the first application, and fifty percent (50%) of the applicable processing fee for each additional application shall be assessed. The provisions of this subparagraph do not apply to Certified Equipment Permits, Registration Permits, and the exceptions mentioned in subparagraphs (c)(3)(A), (c)(3)(B), and (c)(3)(C).
- (F) **Discounts for Small Business and Identical Equipment**
Applications qualifying with the provisions of both subparagraph (c)(1)(D) and (c)(1)(E) shall only be entitled to one fee discount

equivalent to the maximum discount afforded under either subparagraph.

(G) Fees for Permit Processing for Certified Equipment Permits and Registration Permits

- (i) Persons applying for a Certified Equipment Permit shall pay a one-time permit processing fee for each application. The fee shall be determined in accordance with Table FEE RATE-A. No annual operating permit renewal fee shall be charged.
- (ii) A permit processing fee equal to 50% of Schedule A Permit Processing Fee of Table FEE RATE-A shall be assessed to a person applying for a Change of Operator for a Certified Equipment Permit.
- (iii) A permit processing fee equal to 50% of Schedule A Permit Processing Fee of Table FEE RATE-A shall be charged to a person applying for a Registration Permit to Construct and Permit to Operate for certified equipment. Annual operating permit renewal fees shall be paid pursuant to subdivision (d).
- (iv) When certified equipment is built, erected, installed, or replaced (except for identical replacement) without the owner/operator obtaining a required Rule 201 Permit to Construct, the permit processing fee assessed shall be 150 percent (150%) of the amount set forth in subparagraph (c)(1)(G)(iii) of Rule 301.

(H) Applications Submitted for Equipment Previously Exempted by Rule 219

When applications for equipment are submitted within one year after the adoption of the most recent amendment to Rule 219 and are filed in accordance with the provisions of subparagraphs (c)(1)(A), (c)(1)(E), paragraphs (c)(2), or (c)(3) and require a permit, solely due to the most recent amendments to Rule 219, the permit processing fees assessed shall be in accordance with Schedule A of Table FEE RATE-A.

(I) Standard Streamlined Permits

The Streamlined Standard Permit application processing fee shall be \$930.20, except that the fee shall not exceed the applicable permit processing fee including small business discount if applicable.

There shall be no small business discount on the basic fee of \$930.20. Applications submitted for existing equipment which is operating and qualifies for a Streamlined Standard Permit shall be assessed an application processing fee in accordance with the provisions of subparagraph 301(c)(1)(C). Standard Streamlined Permits may be issued for the following equipment or processes: Replacement dry-cleaning equipment and Lithographic printing equipment.

(2) Fee for Change of Operator or Additional Operator

Under Rule 209 (Transfer and Voiding of Permits), a permit granted by the District is not transferable. Every applicant who files an application for a change of operator or additional operator with the same operating conditions of a Permit to Operate shall be subject to a permit processing fee as follows:

(A) The permit processing fee shall be as established in Table FEE RATE-C for equipment at one location so long as the new operator files an application for a Permit to Operate within one (1) year from the last renewal of a valid Permit to Operate and does not change the operation of the affected equipment. All fees billed from the date of application submittal that are associated with the facility for equipment for which a Change of Operator or Additional Operator application is filed, and all facility-specific fees (such as “Hot Spots” fees), must be paid before the Change of Operator or Additional Operator application is accepted. If after an application is received and SCAQMD determines that fees are due, the new operator shall pay such fees within 30 days of notification. If the fees are paid timely, the operator will not be billed for any additional fees billed to the previous operator.

(B) If an application for change of operator of a permit is not filed within one (1) year from the last annual renewal of the permit under the previous operator, the new operator shall submit an application for a new Permit to Operate, along with the permit processing fee as prescribed in subparagraph (c)(1)(A). A higher fee, as described in subparagraph (c)(1)(C), shall apply.

(3) Change of Operating Condition, Alteration/Modification/Addition

All delinquent fees, and court judgments in favor of the District and administrative civil penalties associated with the facility must be paid

before a Change of Operating Condition, Alteration/Modification/Addition application will be accepted. When an application is filed for a permit involving change of operating conditions, and/or a permit involving proposed alterations/modifications or additions resulting in a change to any existing equipment for which a Permit to Construct or a Permit to Operate was granted and has not expired in accordance with these rules, the permit processing fee shall be the amount set forth in Table FEE RATE-A. The only exceptions to this fee shall be:

- (A) Permits that must be reissued with conditions prohibiting the use of toxic materials and for which no evaluation is required, no physical modifications of equipment are made, and the use of substitute materials does not increase Volatile Organic Compounds (VOC) by more than 0.5 pound in any one day. When an application is filed for a modification described by this exception, the permit processing fee shall be the applicable fee as shown in the table below in this subparagraph:

Facility Type	Non-Title V	Title V
FY 2018-19	\$930.20	\$1,053.34
FY 2019-20 and thereafter	\$930.20	\$1,165.62

- (B) Permits that must be reissued to reflect the permanent removal of a standby fuel supply, or to render equipment non-operational shall pay the applicable reissue permit fee as shown in the tables below in this subparagraph, as follows:

- (i) Does not result in a new source review emission adjustment:

Facility Type	Non-Title V (per equipment or reissued permit)	Title V (per equipment or reissued permit)
FY 2018-19	\$681.13	\$771.30
FY 2019-20 and thereafter	\$681.13	\$853.53

- (ii) Does result in a new source review emission adjustment:

Facility Type	Non-Title V (per equipment)	Title V (per equipment)
FY 2018-19	\$1,785.79	\$2,022.19
FY 2019-20 and thereafter	\$1,785.79	\$2,237.76

- (C) Permits reissued for an administrative change in permit description, for splitting a permit into two or more permits based on Equipment/Process listed in Table IA or IB (an application is required for each Equipment/Process) or for a change in permit conditions based on actual operating conditions and which do not require any engineering evaluation and do not cause a change in emissions, shall be charged a fee according to the following schedule:

Schedule	Non-Title V	Title V	
	FY 2018-19 and thereafter	FY 2018-19	FY 2019-20 and thereafter
A	\$681.14	\$771.30	\$853.53
A1	\$681.14	\$771.30	\$853.53
B	\$930.20	\$1,053.34	\$1,165.62
B1	\$930.20	\$1,053.34	\$1,165.62
C	\$930.20	\$1,053.34	\$1,165.62
D	\$930.20	\$1,053.34	\$1,165.62
E	\$930.20	\$1,053.34	\$1,165.62
F	\$930.20	\$1,053.34	\$1,165.62
G	\$930.20	\$1,053.34	\$1,165.62
H	\$930.20	\$1,053.34	\$1,165.62

(D) For permits reissued because of Rule 109, which do not result in Best Available Control Technology (BACT) determination, the permit processing fee shall be 50% of the amount set forth in Table FEE RATE-A.

- (4) Fee for Evaluation of Applications for Emission Reductions
- Every applicant who files an application for banking of emission reduction credits; change of title of emission reduction credits; alteration/modification of emission reduction credits; or conversion of emission reduction credits, mobile source credits, or area source credits to short term emission reduction credits, as described in paragraph (a)(2) of this rule shall, at the time of filing, pay a processing fee in accordance with Schedule I in Table

FEE RATE-B. Additionally, the applicant shall, if required by Rule 1310(c), either:

- (A) Pay a fee for publication of public notice and a preparation fee as per Rule 301(j)(4), or
- (B) Arrange publication of the public notice independent of the District option and provide to the Executive Officer a copy of the proof of publication.

- (5) Fees for Retirement of Short Term Emission Reduction Credits for Transfer into Rule 2202, and for ERCs Transfer Out of Rule 2202.

Any applicant who files an application to transfer a short term emission reduction credit certificate into Rule 2202 or to transfer ERCs out of Rule 2202 pursuant to Rule 2202 – On-Road Motor Vehicle Mitigation Options shall, at the time of filing, pay the fee as listed in Table FEE RATE-B.

- (d) Annual Operating Permit Renewal Fee

- (1) Renewal of Permit to Operate

All Permits to Operate (including temporary Permits to Operate pursuant to Rule 202) for equipment on the same premises shall be renewed on the annual renewal date set by the Executive Officer. A Permit to Operate is renewable if the permit is valid according to the District's Rules and Regulations and has not been voided or revoked and if the annual operating permit fee is paid within the time and upon the notification specified in paragraph (d)(8) of this rule and if all court judgments in favor of the District and administrative civil penalties associated with the facility are paid.

- (2) Annual Operating Fees

The annual operating permit renewal fee shall be assessed in accordance with the following schedules:

Equipment/Process Schedules in Tables IA and IB	Non-Title V Annual Operating Permit Renewal Fee	Title V Annual Operating Permit Renewal Fee
A1	\$203.01	\$229.88 for FY 2018-19 and \$254.38 for FY 2019-20 and thereafter
A, B, and B1 (excluding Rule 461 liquid fuel dispensing nozzles)	\$406.79	\$460.64 for FY 2018-19 and \$509.74 for FY 2019-20 and thereafter
C and D	\$1,456.96	\$1,649.83 for FY 2018-19 and \$1,825.70 for FY 2019-20 and thereafter
E, F, G, and H	\$3,498.33	\$3,961.46 for FY 2018-19 and \$4,383.76 for FY 2019-20 and thereafter
Rule 461 liquid fuel dispensing system	\$120.26 per product dispensed per nozzle	\$136.19 for FY 2018-19 and \$150.71 for FY 2019-20 and thereafter per product dispensed per nozzle

In addition to the annual operating permit renewal fees based on equipment/process, each RECLAIM/Title V facility shall pay the additional fee of:

Title V Facility	\$667.85 for FY 2018-19 and \$739.04 for FY 2019-20 and thereafter per facility
RECLAIM Facility	\$978.67 per Major Device
	\$195.74 per Large Device
	\$195.74 per Process Unit Device
RECLAIM and Title V Facility	RECLAIM fee + Title V fee

(3) Credit for Solar Energy Equipment

Any permittee required to pay an annual operating permit renewal fee shall receive an annual fee credit for any solar energy equipment installed at the site where the equipment under permit is located. Solar energy projects that receive grant funding from the Rule 1309.1 – Priority Reserve account shall not be eligible for this annual fee credit.

(A) Computation

The design capacity of the solar energy equipment expressed in thousands of British Thermal Units (Btu) per hour shall be used to determine the fee credit calculated at \$1.97 per 1,000 Btu.

(B) Limitation

The solar energy credit shall not exceed the annual operating permit renewal fee for all permits at the site where the solar energy equipment is located.

(4) Renewal of Temporary Permit to Operate New Equipment

A Permit to Construct, which has not expired or has not been canceled or voided, will be considered a temporary Permit to Operate on the date the applicant completes final construction and commences operation, pursuant to subdivision (a) of Rule 202. For the purposes of this paragraph, the date specified as the estimated completion date on the application for Permit to Construct will be considered the date of commencement of operation, unless the applicant notifies the District in writing that operation will commence on another date, or unless the equipment already has been placed in operation. Such temporary Permit to Operate shall be valid for the period of time between commencement of operation and the applicant's next annual renewal date following commencement of operation and shall be subject to a prorated amount of the annual operating permit renewal fee prescribed in paragraph (d)(2). The proration shall be based on the time remaining to the next annual renewal date. On that next annual renewal date, and each year thereafter, the annual operating permit renewal fee for the temporary Permit to Operate shall be due in the amount prescribed in paragraph (d)(2).

(5) Renewal of Temporary Permit to Operate Existing Equipment

In the case of equipment operating under a temporary Permit to Operate issued pursuant to subdivision (c) of Rule 202, where a Permit to Construct was not issued, the company is immediately subject to a prorated amount of the annual operating permit renewal fee prescribed in paragraph (d)(2) following the submission of the completed application for Permit to Operate. The proration shall be based on the time remaining to the next annual renewal date. On that next annual renewal date, and each year thereafter, the annual operating permit renewal fee shall be due in the amount prescribed in paragraph (d)(2). If no annual renewal date has been

established, the Executive Officer shall set one upon receipt of the application.

(6) Annual Renewal Date

If, for any reason, the Executive Officer determines it is necessary to change the annual renewal date, all annual operating permit renewal fees shall be prorated according to the new annual renewal date.

(7) Annual Renewal Date for Change of Operator

The same annual renewal date shall apply from one change of operator to another.

(8) Notice of Amount Due and Effect of Nonpayment

At least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit will be notified by mail, electronic mail, or other electronic means, of the amount to be paid and the due date. If such notice is not received at least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit shall notify the District on or before the permit renewal date that said notice was not received. The annual operating permit renewal fee for each permit shall be in the amount described in paragraph (d)(2). If the annual operating permit renewal fee is not paid within thirty (30) days after the due date, the permit will expire and no longer be valid. In the case of a RECLAIM facility, if the individual device fee(s) are not paid, the application(s) associated with the device(s) shall expire and no longer be valid. For a Title V facility, if the Title V facility fee, which is not based on any specific equipment but applies to the whole facility, is not paid, the Title V facility permit shall expire. In such a case, the owner/operator will be notified by mail, electronic mail, or other electronic means, of the expiration and the consequences of operating equipment without a valid permit, as required by Rule 203 (Permit to Operate). For the purpose of this paragraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or state holiday with the same effect as if it had been postmarked on the expiration date.

(9) Annual Operating Fees for Redundant Emission Controls

Any person holding permits to operate for two or more emission controls applicable to the same equipment who establishes that any of the emission controls is redundant, i.e., not necessary to assure compliance with all applicable legal requirements, shall not be required to pay annual operating permit renewal fees under subdivision (d) for the redundant equipment. The Executive Officer may reinstate the obligation to pay such fees at any time upon determination that operating the control is or has become necessary to assure compliance with any applicable legal requirements.

(e) Annual Operating Emissions Fee

(1) Annual Operating Emission Fee Applicability

In addition to the annual operating permit renewal fee, the owner/operator of all equipment operating under permit shall pay an annual emissions fee based on the total weight of emissions of each of the contaminants specified in Table III from all equipment used by the operator at all locations, including total weight of emissions of each of the contaminants specified in Table III resulting from all products which continue to passively emit air contaminants after they are manufactured, or processed by such equipment, with the exception of such product that is shipped or sold out of the District so long as the manufacturer submits records which will allow for the determination of emissions within the District from such products.

(2) Emissions Reporting and Fee Calculation

For the reporting period July 1, 2000 to June 30, 2001, and all preceding reporting periods, emissions from equipment not requiring a written permit pursuant to Regulation II shall be reported but not incur a fee for emissions so long as the owner/operator keeps separate records which allow the determination of emissions from such non-permitted equipment. Notwithstanding the above paragraph, for the purposes of Rule 317 – Clean Air Act Non-Attainment Fees, all major stationary sources of NO_x and VOC, as defined in Rule 317, shall annually report and pay the appropriate clean air act non-attainment fees for all actual source emissions including but not limited to permitted, unpermitted, unregulated and fugitive emissions. Beginning with the reporting period of July 1, 2001 to June 30, 2002, and for subsequent reporting periods, each facility with total emissions including emissions from equipment or processes not requiring a written permit pursuant to Regulation II greater than or equal to the

threshold amount of contaminants listed in paragraph (e)(5) shall report all emissions and incur an emissions fee as prescribed in Table III.

Non-permitted emissions which are not regulated by the District shall not be reported and shall be excluded from emission fees if the facility provides a demonstration that the emissions are not regulated and maintains sufficient records to allow the accurate demonstration of such non-regulated emissions.

(3) Exception for the Use of Clean Air Solvents

An owner/operator shall not pay a fee for emissions from the use of Clean Air Solvents issued a valid Certificate from the District so long as the facility submits separate records which allow the determination of annual emissions, usage, and identification of such products. A copy of the Clean Air Solvent certificate issued to the manufacturer or distributor shall be submitted with the separate records.

(4) Flat Annual Operating Emission Fee

The owner/operator of all equipment operating under at least one permit (not including certifications, registrations or plans) shall each year be assessed a flat annual emissions fee of \$131.79.

(5) Emission Fee Thresholds

Each facility with emissions greater than or equal to the threshold amount of the contaminant listed below shall be assessed a fee as prescribed in Table III.

Air Contaminant(s)	Annual Emissions Threshold (TPY)
Gaseous sulfur compounds (expressed as sulfur dioxide)	≥4 TPY
Total organic gases (excluding methane, exempt compounds as specified in paragraph (e)(13), and specific organic gases as specified in paragraph (b)(28))	≥4 TPY
Specific organic gases	≥4 TPY
Oxides of nitrogen (expressed as nitrogen oxide)	≥4 TPY
Total particulate matter	≥4 TPY
Carbon monoxide	≥100 TPY

(6) Clean Fuels Fee Thresholds

Each facility emitting 250 tons or more per year (≥ 250 TPY) of Volatile Organic Compounds, Nitrogen Oxides, Sulfur Oxides and Particulate Matter shall pay an annual clean fuels fee as prescribed in Table V (California Health and Safety Code Section 40512).

(7) Fees for Toxic Air Contaminants or Ozone Depleters

Each facility emitting a toxic air contaminant or ozone depleter greater than or equal to the annual thresholds listed in Table IV shall be assessed an annual emissions fee as indicated therein. The annual emissions fee for toxic air contaminants and ozone depleters shall be based on the total weight of emissions of these contaminants associated with all equipment and processes including, but not limited to, material usage, handling, processing, loading/unloading; combustion byproducts, and fugitives (equipment/component leaks).

(A) Any dry cleaning facility that emits less than two (2) tons per year of perchloroethylene, and qualifies as a small business as defined in the general definition of Rule 102, shall be exempt from fees listed in Table IV. This provision shall be retroactive to include the July 10, 1992, rule amendment which included perchloroethylene in Table IV.

(B) Any facility that emits less than two (2) tons per year, of formaldehyde, perchloroethylene, or methylene chloride, may petition the Executive Officer, at least thirty (30) days prior to the official submittal date of the annual emissions report as specified in paragraph (e)(10), for exemption from formaldehyde, perchloroethylene, or methylene chloride fees as listed in Table IV. Exemption from emissions fees shall be granted if the facility demonstrates that no alternatives to the use of these substances exist, no control technologies exist, and that the facility qualifies as a small business as defined in the general definition of Rule 102.

(8) Reporting of Total Emissions from Preceding Reporting Period and Unreported or Under-reported Emissions from Prior Reporting Periods

(A) The owner/operator of equipment subject to paragraph (e)(1), (e)(2), (e)(5), (e)(6), and (e)(7) shall report to the Executive Officer the total emissions for the immediate preceding reporting period of each of the air contaminants concerned from all equipment. The report shall be made at the time and in the manner prescribed by the Executive

Officer. The permit holder shall report the total emissions for the twelve (12) month period reporting for each air contaminant concerned from all equipment or processes, regardless of the quantities emitted.

- (B) The Executive Officer will determine default emission factors applicable to each piece of permitted equipment or group of permitted equipment, and make them available to the owner/operator in a manner specified by the Executive Officer and provide them to the owner/operator upon request. In determining emission factors, the Executive Officer will use the best available data. A facility owner/operator can provide alternative emission factors that more accurately represent actual facility operations subject to the approval of the Executive Officer.
 - (C) A facility owner/operator shall report to the Executive Officer, in the same manner, and quantify any emissions of air contaminants in previous reporting periods which had not been reported correctly and should have been reported under the requirements in effect in the reporting period in which the emissions occurred.
- (9) Request to Amend Emissions Report and Refund of Emission Fees
- (A) A facility owner/operator shall submit a written request (referred to as an “Amendment Request”) for any proposed revisions to previously submitted annual emissions reports. Amendment requests with no fee impact, submitted after one (1) year and seventy five (75) days from the official due date of the subject annual emissions report shall include a non-refundable standard evaluation fee of \$343.96 for each subject facility and reporting period. Evaluation time beyond two hours shall be assessed at the rate of \$172.01 per hour and shall not exceed ten (10) hours. Amendment requests received within one year (1) and seventy five (75) days from the official due date of a previously submitted annual emissions report shall not incur any such evaluation fees. The Amendment Request shall include all supporting documentation and copies of revised applicable forms.
 - (B) A facility owner/operator shall submit a written request (referred to as a “Refund Request”) to correct the previously submitted annual emissions reports and request a refund of overpaid emission fees. Refund Requests must be submitted within one (1) year and seventy

five (75) days from the official due date of the subject annual emissions report to be considered valid. The Refund Request shall include all supporting documentation and copies of revised applicable forms. If the Refund Request is submitted within one (1) year and seventy five (75) days from the official due date of the subject annual emissions report, and results in no fee impact, then the facility owner/operator shall be billed for the evaluation fee pursuant to subparagraph (e)(9)(A).

(10) Notice to Pay and Late Filing Surcharge

- (A) A notice to report emissions and pay the associated emission fees will be sent by mailmailed, electronic mail, or other electronic means, annually to the owners/operators of all equipment (as shown in District records) to which this subdivision applies. A notice to pay the semi-annual fee specified in paragraph (e)(11) will also be sent by mailmailed, electronic mail, or other electronic means, to facilities which in the preceding reporting year emitted any air contaminant equal to or greater than the emission thresholds specified in subparagraph (e)(11)(A). Emissions reports and fee payments are the responsibility of the owner/operator regardless of whether the owner/operator was notified.

If both the fee payment and the completed emissions report are not received by the seventy-fifth (75th) day following July 1 (for semi-annual reports), or January 1 (for annual reports), they shall be considered late, and surcharges for late payment shall be imposed as set forth in subparagraph (e)(10)(B). For the purpose of this subparagraph, the emissions fee payment and the emissions report shall be considered to be timely received by the District if it is delivered, postmarked, or electronically paid on or before the seventy-fifth (75th) day following the official due date. If the seventy-fifth (75th) day falls on a Saturday, Sunday, or a state holiday, the fee payment and emissions report may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if they had been delivered, postmarked, or electronically paid on the seventy-fifth (75th) day.

- (B) If fee payment and emissions report are not received within the time prescribed by subparagraph (e)(10)(A), a surcharge shall be

assessed and added to the original amount of the emission fee due according to the following schedule:

Less than 30 days	5% of reported amount
30 to 90 days	15% of reported amount
91 days to 1 year	25% of reported amount
More than 1 year	(See subparagraph (e)(10)(D))

- (C) If an emission fee is timely paid, and if, within one year after the seventy-fifth (75th) day from the official due date is determined to be less than ninety percent (90%) of the full amount that should have been paid, a fifteen percent (15%) surcharge shall be added, and is calculated based on the difference between the amount actually paid and the amount that should have been paid, to be referred to as underpayment. If payment was ninety percent (90%) or more of the correct amount due, the difference or underpayment shall be paid but with no surcharges added. The fee rate to be applied shall be the fee rate in effect for the year in which the emissions actually occurred. If the underpayment is discovered after one (1) year and seventy five (75) days from the official fee due date, fee rates and surcharges will be assessed based on subparagraph (e)(10)(D).
- (D) The fees due and payable for the emissions reported or reportable pursuant to subparagraph (e)(8)(C) shall be assessed according to the fee rate for that contaminant specified in Tables III, IV, and V, and further increased by fifty percent (50%). The fee rate to be applied shall be the fee rate in effect for the year in which the emissions are actually reported, and not the fee rate in effect for the year the emissions actually occurred.
- (E) If one hundred twenty (120) days have elapsed since January 1st, July 1st, or as applicable, and all emission fees including any surcharge have not been paid in full, the Executive Officer may take action to revoke all Permits to Operate for equipment on the premises, as authorized in Health and Safety Code Section 42307.
- (11) Semi-Annual Emissions Fee Payment
- (A) For facilities emitting the threshold amount of any contaminant listed below, the Executive Officer will estimate one half (1/2) of the previous annual emission fees and request that the permit holder

pay such an amount as the first installment on annual emission fees for the current reporting period.

Air contaminant(s)	Annual emissions threshold (TPY)
Gaseous sulfur compounds (expressed as sulfur dioxide)	≥10 TPY
Total organic gases (excluding methane, exempt compounds as specified in paragraph (e)(13), and specific organic gases as specified in paragraph (b)(28))	≥10 TPY
Specific organic gases	≥10 TPY
Oxides of nitrogen (expressed as nitrogen dioxide)	≥10 TPY
Total particulate matter	≥10 TPY
Carbon monoxide	≥100 TPY

- (B) In lieu of payment of one half the estimated annual emission fees, the owner/operator may choose to report and pay on actual emissions for the first six months (January 1 through June 30). By January 1 of the year following the reporting period, the permit holder shall submit a final Annual Emission Report together with the payment of the balance; the annual emission fees less the installment previously paid. The report shall contain an itemization of emissions for the preceding twelve (12) months of the reporting period (January 1 through December 31).
- (C) An installment fee payment is considered late and is subject to a surcharge if not received within seventy five (75) days of the due date pursuant to paragraph (e)(10).
- (12) **Fee Payment Subject to Validation**
Acceptance of a fee payment does not constitute validation of the emission data.
- (13) **Exempt Compounds**
Emissions of acetone, ethane, methyl acetate, parachlorobenzotrifluoride (PCBTF), and volatile methylated siloxanes (VMS), shall not be subject to the requirements of Rule 301(e).
- (14) **Reporting Emissions and Paying Fees**
For the reporting period of January 1 through December 31, emission fees shall be determined in accordance with fee rates specified in Tables III, IV

and V, and paragraph (e)(2). Installment fees that have been paid for Semi-Annual Emission Fees shall not be subject to this provision.

(15) **Deadline for Filing Annual Emissions Report and Fee Payment**

Notwithstanding any other applicable Rule 301(e) provisions regarding the annual emissions report and emission fees, for the reporting period January 1 through December 31, the fee payment and the completed annual emissions report shall be ~~received by the District, or delivered,~~ postmarked, or electronically paid on or before the seventy-fifth (75th) day following January 1 of the subsequent year to avoid any late payment surcharges specified in subparagraph (e)(10)(B).

(16) **Reporting GHG Emissions and Paying Fees**

A facility that is subject to the California Air Resources Board (CARB)'s mandatory reporting of Greenhouse Gas (GHG) emissions may request District staff to review and verify the facility's GHG emissions. The fee for review and verification for each GHG emissions report shall consist of an initial submittal fee of \$135.77 in addition to a verification fee assessed at \$140.52 per hour or prorated portion thereof.

(f) **Certified Permit Copies and Reissued Permits**

A request for a certified permit copy shall be made in writing by the permittee after the destruction, loss, or defacement of a permit. A request for a permit to be reissued shall be made in writing by the permittee where there is a name or address change without a change of operator or location. The permittee shall, at the time a written request is submitted, pay the fees to cover the cost of the certified permit copy or reissued permit as follows:

(1) **Certified Permit Copy**

Facility Type	Non-Title V	Title V
FY 2018-19	\$30.19	\$34.19
FY 2019-20 and thereafter	\$30.19	\$37.84

(2) Reissued Permit

Facility Type	Non-Title V	Title V
FY 2018-19	\$233.77	\$264.71
FY 2019-20 and thereafter	\$233.77	\$292.93

No fee shall be assessed to reissue a permit to correct an administrative error by District staff.

(g) Reinstating Expired Applications or Permits; Surcharge

An application or a Permit to Operate which has expired due to nonpayment of fees or court judgments in favor of the District or administrative civil penalties associated with the facility may be reinstated by submitting a request for reinstatement of the application or Permit to Operate accompanied by a reinstatement surcharge and payment in full of the amount of monies due at the time the application or Permit to Operate expired. The reinstatement surcharge shall be fifty percent (50%) of the amount of fees due per equipment at the time the application or Permit to Operate expired, or the following amount, whichever is lower:

Permit Holder Per Equipment Fee	Title V Facility	Non-Title V Facility	Other Facility Type
FY 2018-19	\$280.86	\$248.03	\$248.03
FY 2019-20 and thereafter	\$310.79	\$248.03	\$248.03

Such request and payment shall be made within one (1) year of the date of expiration. An application or Permit to Operate which has expired due to nonpayment of fees shall not be reinstated if the affected equipment has been altered since the expiration of the application or Permit to Operate. If the period of expiration has exceeded one (1) year or the affected equipment has been altered, operation of the equipment shall require a new Permit to Operate and the application shall be subject to Rule 1313(b).

(h) Reinstating Revoked Permits

If a Permit to Operate is revoked for nonpayment of annual permit fees based on emissions or fees on non-permitted emissions, it may be reinstated upon payment by the permit holder of such overdue fees and accrued surcharge in accordance with (e)(10).

(i) Clean Air Act Non-Attainment Fees

Any fees remitted to the District pursuant to Rule 317 – Clean Air Act Non-attainment Fees shall be held in escrow accounts unique to each source. Fees accrued in such escrow accounts may be used for either of the following at the discretion of the source's owner or operator.

- (1) Creditable up to the amount of fees due by the same source during the calendar year or subsequent calendar year(s) for annual emissions fees due pursuant to Rule 301(e)(2), (4), (6), (7) and (11) and annual operating permit renewal fees due pursuant to Rule 301(d)(1), (2) and (4). In no case shall the credit be greater than the fees paid; or
- (2) Use by the owner or operator for VOC and NOx reduction programs at their source that are surplus to the State Implementation Plan according to the following prioritization:
 - (A) at the source; or
 - (B) use within another facility under common ownership; or
 - (C) use in the community adjacent to the facility; or
 - (D) other uses to reduce emissions.

Up to five percent of funds can be used by the South Coast Air Quality Management District for administrative support for items in paragraph (i)(2).

(j) Special Permit Processing Fees - California Environmental Quality Act (CEQA) Assistance, Air Quality Analysis, Health Risk Assessment, and Public Notice for Projects

(1) Payment for CEQA Assistance

(A) CEQA Document Preparation

When a determination is made by the Executive Officer that the District is the Lead Agency for a project, pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. and state CEQA Guidelines (14 California Code of Regulations section 15000 et seq.), the project applicant may be required to pay a review fee (based on a staff rate of \$172.01

per hour) when a 400-CEQA form requires the CEQA staff to review for CEQA applicability. If preparation of CEQA documentation is deemed necessary, the applicant shall pay an initial fee for the preparation of necessary CEQA documentation according to the following schedule:

Notice of Exemption (upon applicant request)	\$344.00
Negative Declaration (ND), including Supplemental or Subsequent ND	\$5,187.47
Mitigated Negative Declaration (MND), including Supplemental or Subsequent MND	\$5,187.47
Environmental Impact Report (EIR), including Supplemental or Subsequent EIR	\$6,916.58
Addendum to EIR, including Addendum to ND/MND	\$3,584.56

If the Executive Officer determines that the District's CEQA preparation costs (may include, but not limited to, mailing, noticing, publications, et cetera) and staff time (based on the rate of \$172.01 per hour) exceed the initial fee the project applicant, upon notification from the District, shall make periodic payment of the balance due. The Executive Officer shall determine the amount and timing of such periodic payments, based upon the level of CEQA analysis and the amount of monies needed to offset the actual preparation costs.

(B) CEQA Document Assistance

When the District is not the Lead Agency for a project and a request is made by: another public agency; a project proponent; or any third party, for staff assistance with any of the following tasks including, but not limited to: reviewing all or portions of a CEQA document and air quality analysis protocols for emissions inventories and air dispersion modeling prior to its circulation to the public for review pursuant to Public Resources Code §21092; assisting lead agencies with developing and implementing mitigation measures, the requestor may be required to pay a fee for staff time at the rate of \$172.01 per hour. This fee shall not apply to review of CEQA documents prepared by other public agencies that are available for public review pursuant to Public Resources Code §21092 and is part

of the District's intergovernmental review responsibilities under CEQA.

(2) Payment for Air Quality Analysis

When a determination is made by the Executive Officer that an air quality analysis of the emissions from any source is necessary to predict the extent and amount of air quality impact prior to issuance of a permit, the Executive Officer may order air quality simulation modeling by qualified District personnel. Alternatively, the Executive Officer may require (or the owner/operator of the source may elect) that modeling be performed by the owner/operator or an independent consultant.

Where modeling is performed by the owner/operator or an independent consultant, the Executive Officer may require that the results be verified by qualified District personnel. The owner/operator of the source shall provide to the Executive Officer a copy of the final modeling report including all input data, description of methods, analyses, and results. The owner/operator of the source modeled by District personnel shall pay a fee as specified in Table IIA to cover the costs of the modeling analysis. A fee, as specified in Table IIA, shall be charged to offset the cost of District verification of modeling performed by an independent consultant.

(3) Payment for Health Risk Assessment

(A) When a determination is made by the Executive Officer that any source being evaluated for a Permit to Construct or a Permit to Operate may emit toxic or potentially toxic air contaminants, the Executive Officer may order a Health Risk Assessment be conducted by qualified District personnel or by a qualified consultant, as determined by the Executive Officer, engaged by the District under a contract. Alternatively, the Executive Officer may require (or owner/operator of the source may elect) that the assessment be performed by the owner/operator or an independent consultant engaged by the owner/operator. The Health Risk Assessment shall be performed pursuant to methods used by the California EPA's Office of Environmental Health Hazard Assessment.

(B) For a Health Risk Assessment conducted by the owner/operator of the source or the owner/operator's consultant, the Executive Officer may require that the results be verified by qualified District personnel or by a qualified consultant engaged by the District. The

owner/operator of the source shall provide to the Executive Officer a copy of the final Health Risk Assessment including all input data, and description of methods, analyses, and results. The owner/operator of the source for which a Health Risk Assessment is conducted or is evaluated and verified by District personnel or consultant shall pay the fees specified in Table IIA to cover the costs of an Air Quality Analysis and Health Risk Assessment analysis, evaluation, or verification. When the Health Risk Assessment is conducted or is evaluated and verified by a consultant engaged by the District, or District personnel, the fees charged will be in addition to all other fees required.

- (C) When a Health Risk Assessment is evaluated by the California EPA, pursuant to Health and Safety Code Sections 42315, 44360, 44361 or 44380.5, or by a consultant engaged by the California EPA, or when the District consults with the California EPA regarding the Health Risk Assessment, any fees charged by the California EPA to the District will be charged to the person whose Health Risk Assessment is subject to the review, in addition to other fees required.

- (4) Payment for Public Notice

An applicant shall pay the applicable fee, for preparation of any public notice as required by the rules, as shown below in this paragraph:

Public Notification Type	Non-Title V Source	Title V Source
For a project requiring notification as defined in Rule 212(c)	\$1,084.50	\$1,228.07 for FY 2018-19 and \$1,358.99 for FY 2019-20 and thereafter
For emission reduction credits (ERCs) in excess of the amounts as specified in Rule 1310(c)	\$1,084.50	\$1,228.07 for FY 2018-19 and \$1,358.99 for FY 2019-20 and thereafter
Requesting allocations from the Offset Budget or requesting the generation or use of any Short Term Credit (STCs)	\$1,084.50	\$1,228.07 for FY 2018-19 and \$1,358.99 for FY 2019-20 and thereafter
Significant revision of a Title V permit	---	\$1,228.07 for FY 2018-19 and \$1,358.99 for FY 2019-20 and thereafter

The notice preparation fee is waived for existing dry cleaning operations at the same facility that install, modify or replace dry cleaning equipment to comply with Rule 1421 provided there is a concurrent removal from service of the perchloroethylene equipment. Eligibility includes converting from perchloroethylene to non-toxic alternative solvents, including non-toxic hydrocarbon solvents. In addition, an applicant for a project subject to the requirements of Rule 212(g) shall either:

- (A) Pay the actual cost as invoiced for publication of the notice by prominent advertisement in the newspaper of general circulation in the area affected where the facility is located and for the mailing of the notice to persons identified in Rule 212(g), or
- (B) Arrange publication of the above notice independent of the District option. This notice must be by prominent advertisement in the newspaper of general circulation in the area affected where the

facility is located. Where publication is performed by the owner/operator or an independent consultant, the owner/operator of the source shall provide to the Executive Officer a copy of the proof of publication.

- (5) Payment for Review of Continuous Emissions Monitoring System (CEMS), Fuel Sulfur Monitoring System (FSMS), and Alternative Continuous Emissions Monitoring System (ACEMS)

- (A) New Application for Process Equipment Requiring CEMS or, Alternatively, an FSMS or ACEMS to Comply with the CEMS Requirement.

When a determination is made by the Executive Officer that a Continuous Emissions Monitoring System (CEMS) is required in order to determine a source's compliance with a District rule or regulation, the applicant shall:

- (i) Apply for the use of a CEMS and pay a basic processing fee as specified in Table IIB at the time of filing.
- (ii) Apply for the use of an FSMS or ACEMS in lieu of a CEMS and pay a basic processing fee as specified in Table IIB at the time of filing.

- (B) Modification of an Existing Certified CEMS, FSMS, or ACEMS

If a certified CEMS, FSMS, or ACEMS is modified in a manner (excluding routine replacement or servicing of CEMS or FSMS components for preventive or periodic maintenance according to established quality assurance guidelines, or CEMS or FSMS components designated by the Executive Officer as "standardized" or direct replacement-type components) determined by the Executive Officer to compromise a source's compliance with a District rule or regulation, the applicant shall pay a processing fee covering the evaluation of the modification and recertification, if necessary, as follows:

- (i) If one or more CEMS or FSMS components (excluding additional pollutant monitors) are replaced, modified, or added, the applicant shall pay a minimum processing fee of \$907.51; and additional fees will be assessed at a rate of \$172.01 per hour for time spent on the evaluation in excess of 10 hours up to a maximum total fee of \$5738.49.

- (ii) If one or more pollutant monitors are added to a CEMS or FSMS (and one or more of its components are concurrently replaced, modified, or added), the applicant shall pay a minimum processing fee as specified in Table IIB, based on the number of CEMS or FSMS pollutant monitors and components added.
 - (iii) If one or more pollutant emission sources at a facility are added to an FSMS, a time-shared CEMS, or a SO_x CEMS which is specifically used to “back-calculate” fuel sulfur content for these sources, the applicant shall pay a minimum processing fee as specified in Table IIB, based on the number of CEMS or FSMS monitors and components added.
 - (iv) If one or more ACEMS (or PEMS) components are replaced, modified, or added, the applicant shall pay a minimum processing fee \$907.51; and additional fees will be assessed at a rate of \$172.01 per hour for time spent on the evaluation in excess of 10 hours up to a maximum total fee of \$5738.49.
- (C) **Modification of CEMS, FSMS, or ACEMS Monitored Equipment**
For any RECLAIM or non-RECLAIM equipment monitored or required to be monitored by a CEMS, FSMS, or ACEMS, that is modified in a manner determined by the Executive Officer to compromise a source’s compliance with a District CEMS-, FSMS-, or ACEMS-related rule or regulation, or requires an engineering evaluation, or causes a change in emissions; the applicant shall pay a minimum processing fee of \$907.51, covering the evaluation and recertification, if necessary, of the CEMS, FSMS, or ACEMS. Additional fees will be assessed at a rate of \$172.01 per hour for time spent on the evaluation in excess of 10 hours up to a maximum total fee of \$5738.49.
- (D) **Periodic Assessment of an Existing CEMS, FSMS, or ACEMS**
An existing CEMS, FSMS, or ACEMS must be retested on a quarterly, semi-annual, or annual basis to remain in compliance with District regulations. The applicant shall pay a minimum processing fee of \$907.51 for this evaluation, if required. Additional fees will be assessed at a rate of \$172.01 per hour for time spent on the evaluation in excess of 10 hours up to a maximum total fee of \$5738.49.

- (E) CEMS, FSMS, or ACEMS Change of Ownership
Every applicant who files an application for a change of operator of a RECLAIM or non-RECLAIM facility permit shall also file an application for a change of operator of a CEMS, FSMS, or ACEMS, if applicable, and be subject to a processing fee equal to \$273.61 for the first CEMS, FSMS, or ACEMS, plus \$54.57 for each additional CEMS, FSMS, or ACEMS.
- (6) Payment for Review and Certification of Barbecue Charcoal Igniter Products
 - (A) Certification of Barbecue Charcoal Igniter Products
Pursuant to the requirements of District Rule 1174, manufacturers, distributors, and/or retailers of applicable barbecue charcoal igniter products shall perform the required testing and shall submit a formal report for review by SCAQMD staff for product compliance and certification. For each product evaluated, the applicant shall pay a minimum processing fee of \$678.79 per product certified, and additional fees will be assessed at the rate of \$135.77 per hour for time spent on the evaluation/certification process in excess of 5 hours.
 - (B) Repackaging of Certified Barbecue Charcoal Igniter Products
When a currently certified barbecue charcoal igniter product is repackaged for resale or redistribution, the manufacturer, distributor, and/or retailer shall submit the required documentation to SCAQMD staff for evaluation and approval. For each product or products evaluated, the applicant shall pay a processing fee of \$339.42 for the first certificate issued, and additional fees will be assessed at the rate of \$135.77 per hour for the time spent in excess of 3 hours for the first certificate issued. Additional certificates for the same product or products shall be assessed at the rate of \$67.85 per each additional certificate issued.
- (7) Fees for Inter-basin, Inter-district, or Interpollutant Transfers of Emission Reduction Credits
An applicant for inter-basin, inter-district, or interpollutant transfer of ERCs shall file an application for ERC Change of Title and pay fees as listed in Table FEE RATE-B. Additional fees shall be assessed at a rate based on the number of hours for the time spent on review and evaluation of inter-

basin, inter-district, and interpollutant transfers of ERCs pursuant to Rule 1309 subdivisions (g) and (h).

Facility Type	Non-Title V	Title V
FY 2018-19	\$186.04/hr	\$210.67/hr
FY 2019-20 and thereafter	\$186.04/hr	\$233.13/hr

- (8) **Fees for Grid Search to Identify Hazardous Air Pollutant Emitting Facilities**
A fee of \$341.74 shall be submitted by any individual, business or agency requesting the District to conduct a grid search to identify all facilities with the potential to emit hazardous air pollutants located within one-quarter mile of a proposed school boundary.

Failure to pay the fees described in this subdivision within thirty (30) days after their due date(s) shall result in expiration of pending applications, and no further applications will be accepted from the applicant until the fees have been paid in full.

- (k) **Government Agencies**

All applicants and permittees, including federal, state, or local governmental agencies or public districts, shall pay all fees.

- (l) **RECLAIM Facilities**

- (1) For RECLAIM facilities, this subdivision specifies additional conditions and procedures for assessing the following fees:

- (A) Facility Permit;
- (B) Facility Permit Amendment;
- (C) Change of Operating Condition;
- (D) Change of Operator;
- (E) Annual Operating Permit;
- (F) Transaction Registration;
- (G) RECLAIM Pollutant Emission;
- (H) Duplicate Permits;
- (I) Reissued Permits;
- (J) RECLAIM Breakdown Emissions; and
- (K) Non-Tradeable Allocation Credit Mitigations.

(2) RECLAIM Fees Applicability

All RECLAIM Facility Permit holders shall be subject to this subdivision.

(3) Rule 301 - Permit Fees Applicability

Unless specifically stated, all RECLAIM Facility Permit holders shall be subject to all other provisions of Rule 301 - Permit Fees.

(4) Facility Permit Amendment

At the time of filing an application for a Facility Permit Amendment, a Facility Permit Amendment Fee shall be paid and an application for such amendment shall be submitted. The Facility Permit Amendment Fees for an application or group of applications are listed in Table VII and shall be based on the type of facility permit. Facility Permit Amendment Fees are in addition to the sum of applicable fees assessed for each application required for affected equipment as specified in subparagraph (c)(3)(C) (for administrative equipment applications) or Table FEE RATE-A (for non-administrative equipment applications) or Rule 306 (i)(1). All delinquent fees, court judgments in favor of the District and administrative civil penalties associated with the facility must be paid before a Facility Permit Amendment application will be accepted.

(5) Change of Operating Condition

At the time of filing an application for a Change of Operating Conditions that requires engineering evaluation or causes a change in emissions, a Change of Condition Fee shall be paid. Such fee shall be equal to the sum of fees assessed for each equipment subject to the change of condition as specified in Table FEE RATE-A. All delinquent fees associated with the affected facility subject to the change of condition must be paid before a Change of Operating Conditions application will be accepted.

(6) Fee for Change of Operator

The Permit Processing Fee for a Change of Operator of a RECLAIM facility permit shall be determined from Table FEE RATE-C. In addition, a Facility Permit Amendment fee as specified in paragraph (1)(4) shall be assessed. All fees, billed within the past 3 years from the date of application submittal that are, associated with the facility for equipment for which a Change of Operator or Additional Operator application is filed, and all facility-specific fees (such as "Hot Spots" fees), must be paid before a Change of Operator or Additional Operator application is accepted. If after an application is received and SCAQMD determines that fees are due, the new operator shall

pay such fees within 30 days of notification. If the fees are paid timely the new operator will not be billed for any additional fees billed to the previous operator.

(7) Annual Operating Permit Renewal Fee

- (A) Unless otherwise stated within this subdivision, the Facility Permit holder shall be subject to all terms and conditions pursuant to subdivision (d).
- (B) An Annual Operating Permit Renewal Fee shall be submitted by the end of the compliance year. Such fee shall be equal to the sum of applicable permit renewal fees specified in paragraph (d)(2).
- (C) At least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit will be notified by mail, electronic mail, or other electronic means, of the amount to be paid and the due date. If such notice is not received at least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit shall notify the District on or before the permit renewal date that said notice was not received. If the Annual Operating Permit Renewal fee is not paid within thirty (30) days after the due date, the permit will expire and no longer be valid. In such a case, the owner/operator will be notified by mail, electronic mail, or other electronic means, of the expiration and the consequences of operating equipment without a valid permit as required by District Rule 203 (Permit to Operate). For the purpose of this subparagraph, the fee payment will be considered to be received by the District if it is delivered, postmarked, or electronically paid ~~by the United States Post Office~~ on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or state holiday as if it had been delivered, postmarked, or electronically paid on the expiration date.

(8) Transaction Registration Fee

The transferor and transferee of an RTC shall jointly register the transaction with the District pursuant to District Rule 2007 – Trading Requirements. The transferee shall pay a Transaction Registration Fee of \$175.37 at the time the transaction is registered with the SCAQMD.

(9) RECLAIM Pollutant Emission Fee

At the end of the reporting period specified in subparagraph (e)(8)(A), RECLAIM facilities shall pay a RECLAIM Pollutant Emission Fee based on the facilities' total certified RECLAIM pollutant emissions. For facilities emitting ten (10) tons per year or more of any contaminant the previous year, the Facility Permit holders shall pay a semi-annual installment equal to one half (1/2) of the total estimated fee with final balance due at the end of the reporting period.

(A) The Facility Permit Holder shall pay emission fees according to the provisions of subdivision (e) for all emissions that are not accounted for with RECLAIM pollutant emissions. The Facility Permit holder shall add non-RECLAIM emissions to applicable RECLAIM emissions to determine the appropriate fee rate from Table III fee rate per ton of emissions.

(B) Facility Permit Holders shall pay RECLAIM Pollutant Emission Fees according to the provisions of subdivision (e), except that:

- (i) Fees based on emissions of RECLAIM pollutants as defined in Rule 2000(c)(58) for annual payments shall be calculated based on certified emissions as required by paragraph (b)(2) or (b)(4) of Rule 2004, as applicable;
- (ii) RECLAIM Pollutant Emission Fees shall be due as established by subdivision (e) of this rule for both Cycle 1 and Cycle 2 Facilities;
- (iii) Facilities emitting ten (10) tons per year or more of a RECLAIM pollutant during the previous annual reporting period, shall also pay a semi-annual installment based on either (a) one-half (1/2) of the facility's RECLAIM pollutant fees for the previous annual reporting period; or (b) emissions certified pursuant to paragraph (b)(2) and (b)(4) of Rule 2004 in the two (2) quarters falling in the time period that coincides with the first six (6) months of the current reporting period, by the deadline as established by subdivision (e) of this rule for both Cycle 1 and Cycle 2 Facilities.
- (iv) A fee payment is considered late and subject to the late payment surcharge of paragraph (e)(10) if not received

within sixty (60) days of the due date specified in this paragraph.

- (C) If the Executive Officer determines that the APEP emissions reported by a Facility Permit Holder are less than the amount calculated as specified in Rule 2004(b)(2) and (b)(4), the Facility Permit Holder shall pay RECLAIM Pollutant Emission Fees on the difference between the APEP total as determined by the Executive Officer and the reported APEP total as specified in subparagraph (l)(9)(A).
- (D) In the event that certified emissions determined pursuant to Rule 2004(b)(2) and (b)(4), for compliance year beginning January 1, 1995 and after, include emissions calculated using missing data procedures, and these procedures were triggered pursuant to Rule 2011(c)(3) or 2012(c)(3) solely by a failure to electronically report emissions for major sources due to a problem with transmitting the emission data to the District which was beyond the control of the Facility Permit holder, such portion of the emissions may be substituted by valid emission data monitored and recorded by a certified CEMS, for the purpose of RECLAIM pollutant emission fee determination only, provided that a petition is submitted to the Executive Officer with the appropriate processing fee by the Facility Permit holder. The petition must be made in writing and include all relevant data to clearly demonstrate that the valid emission data were recorded and monitored by a certified CEMS as required by Rules 2011 and 2012 and the only reason for missing data procedures being triggered was due to a problem with transmitting the emission data to the District which was beyond the control of the Facility Permit holder. In addition to the RECLAIM pollutant emission fee, the petitioner shall pay a minimum processing fee as shown in the following table in this subparagraph:

Facility Type	Non-Title V	Title V
FY 2018-19	\$725.37	\$821.41
FY 2019-20 and thereafter	\$725.37	\$908.97

and an additional fee assessed at the applicable hourly rate, for time spent on evaluation in excess of 3 hours, as shown in the table below in this subparagraph:

Facility Type (After 3 hours)	Non-Title V	Title V
FY 2018-19	\$186.04/hr	\$210.67/hr
FY 2019-20 and thereafter	\$186.04/hr	\$233.13/hr

(10) **Certified Permits Copies**

A request for a certified copy of a Facility Permit shall be made in writing by the permittee. The permittee shall, at the time the written request is submitted, pay a fee for the first page as follows:

Facility Type	Non-Title V	Title V
FY 2018-19	\$30.19	\$34.19
FY 2019-20 and thereafter	\$30.19	\$37.84

and the applicable fee per page for each additional page in the Facility Permit as shown below:

Facility Type	Non-Title V	Title V
FY 2018-19	\$2.13/page	\$2.42/page
FY 2019-20 and thereafter	\$2.13/page	\$2.68/page

(11) Reissued Permits

A request for a reissued Facility Permit shall be made in writing by the permittee where there is a name or address change without a change of operator or location. The permittee shall, at the time the written request is submitted, pay a fee for the first page as follows:

Facility Type	Non-Title V	Title V
FY 2018-19	\$233.78	\$264.71
FY 2019-20 and thereafter	\$233.78	\$292.93

and the applicable fee per page for each additional page in the facility permit as shown below:

Facility Type	Non-Title V	Title V
FY 2018-19	\$2.13/page	\$2.42/page
FY 2019-20 and thereafter	\$2.13/page	\$2.68/page

(12) Breakdown Emission Report Evaluation Fee

The Facility Permit Holder, submitting a Breakdown Emission Report to seek exclusion of excess emissions from the annual allocations pursuant to Rule 2004 - Requirements, shall pay fees for the evaluation of a Breakdown Emission Report. The Facility Permit Holder shall pay a filing fee of one (1) hour based on the fee rates shown in the table below in this paragraph, at the time of filing of a Breakdown Emission Report, and shall be assessed an evaluation fee at the hourly rate shown in the same table.

Facility Type (After 3 hours)	Non-Title V	Title V
FY 2018-19	\$186.04/hr	\$210.67/hr
FY 2019-20 and thereafter	\$186.04/hr	\$233.13/hr

(13) Breakdown Emission Fee

At the end of the time period from July 1 through June 30, the Facility Permit holder shall pay a Breakdown Emission Fee for excess emissions determined pursuant to District Rule 2004 - Requirements. The Facility Permit Holder shall include excess emissions to the total certified RECLAIM emissions to determine the appropriate RECLAIM Pollutant Emission Fee.

(14) Mitigation of Non-Tradeable Allocation Credits

Upon submitting a request to activate non-tradeable allocation credits pursuant to District Rule 2002(h), the RECLAIM Facility Permit Holder shall pay a mitigation fee per ton of credits requested as shown below:

Facility Type	Non-Title V	Title V
FY 2018-19	\$12,414.43/ton	\$14,057.88/ton
FY 2019-20 and thereafter	\$12,414.43/ton	\$15,556.45/ton

plus a non-refundable processing fee as shown below:

Facility Type	Non-Title V	Title V
FY 2018-19	\$123.74	\$140.13
FY 2019-20 and thereafter	\$123.74	\$155.07

(15) Evaluation Fee to Increase an Annual Allocation to a Level Greater than a Facility's Starting Allocation Plus Non-Tradable Credits

The Facility Permit Holder submitting an application to increase an annual Allocation to a level greater than the facility's starting allocation plus non-tradable credits pursuant to Rule 2005 - New Source Review shall pay fees for the evaluation of the required demonstration specified in Rule 2005(c)(3). The Facility Permit Holder shall pay an evaluation fee at the applicable hourly rate as shown in the table below:

Facility Type (After 3 hours)	Non-Title V	Title V
FY 2018-19	\$186.04/hr	\$210.67/hr
FY 2019-20 and thereafter	\$186.04/hr	\$233.13/hr

(16) **Facility Permit Reissuance Fee for Facilities Exiting RECLAIM**

A facility exiting the NOx RECLAIM program pursuant to Rule 2002(f)(7) shall be assessed a Facility Permit Reissuance Fee for the conversion of its RECLAIM Facility Permit to a Command-and-Control Facility Permit. The conversion consists of removal of non-applicable RECLAIM provisions and addition of requirements for applicable command-and-control rules. The Facility Permit Reissuance Fee includes an initial flat fee, plus an additional time and materials (T&M) charge where applicable. Both the initial flat fee and T&M charge are tiered based on the number of permitted RECLAIM NOx sources at the facility. Both the initial flat fee and T&M charge are also differentiated based on a facility's Title V status.

The initial flat fee to transition from NOx RECLAIM Facility Permit to Command-and-Control Facility Permit per Rule 2002(f)(7) shall be paid at the time of filing and assessed according to the following fee schedule.

Number of Permitted RECLAIM NOx Sources	Non-Title V	Title V
Less than 10	\$2,232	\$3,160
Greater than or equal to 10 and less than 20	\$4,651	\$6,320
20 or more	\$9,302	\$12,640

An additional T&M charge shall be assessed for time spent on the permit conversion in excess of the number of hours and at the hourly rate specified in the following fee schedule and billed following permit reissuance.

	Non-Title V		Title V	
Number of Permitted RECLAIM NOx Sources	Begin Charging Hourly Rate After (hrs)	T&M Rate (\$/hr)	Begin Charging Hourly Rate After (hrs)	T&M Rate (\$/hr)
Less than 10	12	\$186.04	15	\$210.67
Greater than or equal to 10 and less than 20	25	\$186.04	30	\$210.67
20 or more	50	\$186.04	60	\$210.67

(17) **Optional Conversion of Transitioned RECLAIM Facility Permit**

A Facility that has transitioned out of the RECLAIM program in accordance with paragraph (l)(16) and that elects to convert all permitted equipment described on the RECLAIM Facility Permit to equipment/process based Permits to Operate (pursuant to Regulation II) shall pay a fee equal to the Change of Condition fee specified in Table FEE RATE-A, in accordance with the Schedule identified in Table IA or IB, for each equipment/process converted.

(m) **Title V Facilities**

(1) **Applicability**

The requirements of this subdivision apply only to facilities that are subject to the requirements of Regulation XXX - Title V Permits.

(2) **Rule 301 Applicability**

All Title V facilities shall be subject to all other provisions of Rule 301 - Permit Fees, except as provided for in this subdivision.

(3) **Permit Processing Fees for Facilities Applying for an Initial Title V Facility Permit**

(A) The applicant shall pay the following initial fee when the application is submitted:

Title V INITIAL Fee				
Number of Devices	1-20	21-75	76-250	251+
Applications submitted on or after July 1, 2018 through June 30, 2019	\$2,106.89	\$6,742.71	\$15,171.75	\$25,708.01
Applications submitted on or after July 1, 2019	\$2,331.48	\$7,461.49	\$16,789.06	\$28,448.48

To determine the initial fee when the number of devices is not available, the applicant may substitute the number of active equipment. This fee will be adjusted when the Title V permit is issued and the correct number of devices are known.

- (B) The applicant shall, upon notification by the District of the amount due when the permit is issued, pay the following final fee based on the time spent on the application:

Title V FINAL Fee				
Number of Devices	1-20	21-75	76-250	251+
Time Spent in Excess of:	8 Hours	30 Hours	70 Hours	120 Hours
On or after July 1, 2018 through June 30, 2019	\$210.67 per hour; up to a maximum total fee of \$25,718.81	\$210.67 per hour; up to a maximum total fee of \$51,437.58	\$210.67 per hour; up to a maximum total fee of \$131,671.29	\$210.67 per hour; up to a maximum total fee of \$192,890.92
On or after July 1, 2019	\$233.13 per hour; up to a maximum total fee of \$28,460.43	\$233.13 per hour; up to a maximum total fee of \$56,920.83	\$233.13 per hour; up to a maximum total fee of \$145,707.44	\$233.13 per hour; up to a maximum total fee of \$213,453.10

For applicants that did not pay the correct initial fee based on the actual number of devices, the fee when the permit is issued shall be equal to the correct initial fee less the initial fee actually paid, plus the final fee.

Applications submitted on or prior to January 15, 1998 shall not be subject to the final fee.

- (C) If the facility requests revisions to the existing permit terms or conditions, including permit streamlining, an alternative operating scenario or a permit shield, the facility shall submit additional applications with the applicable fees in subdivisions (c) and (j) for each piece of equipment for which a revision is requested. Evaluation time spent on these additional applications shall be excluded from the time calculated for the billing for initial permit issuance in subparagraph (m)(3)(B).
- (D) If a new facility is required to obtain a Title V facility permit to construct, the facility shall submit initial Title V fees as specified in

paragraph (m)(3). These fees are in addition to the sum of all the applicable fees in subdivisions (c) and (j) for all equipment at the facility.

- (E) If an existing facility is required to obtain a Title V facility permit because of a modification, the facility shall submit initial Title V fees as specified in paragraph (m)(3). These fees are in addition to the sum of all the applicable fees in subdivisions (c) and (j) for all new and modified equipment at the facility.

(4) **Permit Revision Fee**

The permit processing fees for a Facility Permit Amendment or Revision shall be based on the Facility Permit type as specified in Table VII. Facility Permit Amendment or Revision includes any administrative permit revision or amendment, minor permit revision or amendment, de minimis significant permit revision or amendment, and any significant permit revision or amendment.

(5) **Renewal Fees**

The fees for renewal of a Title V Facility Permit, at the end of the term specified on the permit, are specified in Table VII. Renewal fees include both an initial processing fee that is due when the application is submitted, and a final fee assessed after SCAQMD evaluation is complete and the permit is issued, and is due upon notification by the SCAQMD of the amount due.

(6) **Public Notice Fees**

The holder of, or applicant for, a Title V permit shall either:

- (A) pay the actual cost as invoiced for publication of the notice by prominent advertisement in the newspaper of general circulation in the area affected where the facility is located and for the mailing of the notice to persons identified in Rule 212(g), or
- (B) arrange publication of the above notice independent of the District option. This notice must be by prominent advertisement in the newspaper of general circulation in the area affected where the facility is located.

Where publication is performed by the owner/operator or an independent consultant, the owner/operator of the source shall provide to the Executive Officer a copy of the proof of publication.

(7) Public Hearing Fees

The holder of, or applicant for, a Title V permit shall, upon notification by the District of the amount due, pay fees of \$4,217.11 for FY 2018-19 and \$4,666.65 for FY 2019-20 and thereafter plus \$1,311.16 for FY2018-19 and \$1,450.93 for FY 2019-20 and thereafter per hour for a public hearing held on a permit action.

(8) Application Cancellation

If a Title V permit application is canceled, the applicant shall pay, upon notification of the amount due, a final fee in accordance with this subdivision. The District shall refund the initial fee only if evaluation of the application has not been initiated.

(9) Notice of Amount Due and Effect of Nonpayment

For fees due upon notification, such notice may be given by personal service ~~or by deposit, postpaid, in the United States or sent by mail, electronic mail, or other electronic means,~~ and shall be due thirty (30) days from the date of personal service, ~~or mailing, or electronic transmission.~~ For the purpose of this paragraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date. Nonpayment of the fee within this period of time will result in permit expiration or revocation of the subject permit(s) in accordance with subdivision (f) of Rule 3002. No further applications will be accepted from the applicant until such time as overdue permit processing fees have been fully paid.

(10) Exclusion Requests

The fees for requesting exclusion or exemption from the Title V program shall be calculated in accordance with Rule 306 – Plan Fees.

(n) All Facility Permit Holders

(1) Applicability

The requirements of this subdivision apply to all non-RECLAIM holders of a Facility Permit.

- (2) Rule 301 Applicability
All non-RECLAIM Facility Permit holders or applicants shall be subject to all other provisions of Rule 301 - Permit Fees, except as provided for in this subdivision.
- (3) Facility Permit Revision
Except as provided in paragraphs (m)(4) and (m)(5), the permit processing fee for an addition, alteration or revision to a Facility Permit that requires engineering evaluation or causes a change in emissions shall be the sum of applicable fees assessed for each affected equipment as specified in subdivisions (c) and (j).
- (4) Change of Operating Condition
The permit processing fee for a Change of Operating Condition that requires engineering evaluation or causes a change in emissions shall be the sum of fees assessed for each equipment or process subject to the change of condition as specified in subdivisions (c) and (j).
- (5) Fee for Change of Operator
The Permit Processing Fee for a Change of Operator of a facility permit shall be determined from Table FEE RATE-C. In addition, an administrative permit revision fee, as specified in Table VII, shall be assessed. All fees billed within the past 3 years from the date of application submittal that are associated with the facility for equipment for which a Change of Operator or Additional Operator application is filed, and all facility specific fees (such as “Hot Spots” fees), must be paid before the Change of Operator or Additional Operator application is accepted. If after an application is received and SCAQMD determines that fees are due, the new operator shall pay such fees within 30 days of notification. If the fees are paid timely, the new operator will not be billed for any additional fees billed the previous operator.
- (6) Annual Operating Permit Renewal Fee
 - (A) Unless otherwise stated within this subdivision, the Facility Permit holder shall be subject to all terms and conditions pursuant to subdivision (d).
 - (B) An Annual Operating Permit Renewal Fee shall be submitted by the end of the compliance year. Such fee shall be equal to the sum of applicable annual operating permit renewal fees specified in paragraph (d)(2).

(C) At least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit will be notified by mail, electronic mail, or other electronic means, of the amount to be paid and the due date. If such notice is not received at least thirty (30) days before the annual renewal date, the owner/operator of equipment under permit shall notify the District on or before the permit renewal date that said notice was not received. If the Annual Operating Permit Renewal Fee is not paid within thirty (30) days after the due date, the permit will expire and no longer be valid. In such a case, the owner/operator will be notified by mail, electronic mail, or other electronic means, of the expiration and the consequences of operating equipment without a valid permit as required by District Rule 203 (Permit to Operate). For the purpose of this subparagraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Post Office, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or state holiday as if it had been delivered, postmarked, or electronically paid on the expiration date.

(7) Certified Permit Copies

A request for a certified copy of a Facility Permit shall be made in writing by the permittee. The permittee shall, at the time a written request is submitted, pay \$27.92 for the first page and \$1.97 for each additional page in the facility permit.

(8) Reissued Permits

A request for a reissued Facility Permit shall be made in writing by the permittee where there is a name or address change without a change of operator or location. The permittee shall, at the time a written request is submitted, pay \$216.14 for the first page plus \$1.97 for each additional page in the Facility Permit.

(o) Asbestos Fees

Any person who is required by District Rule 1403 - Asbestos Emissions from Demolition/Renovation Activities to submit a written notice of intention to demolish or renovate shall pay at the time of delivery of notification, the Asbestos

and Lead Fees specified in Table VI of this rule. Fees are per notification and multiple fees may apply. No notification shall be considered received pursuant to Rule 1403, unless it is accompanied by the required payment. Each revision of a notification shall require a payment of the Revision to Notification fee in Table VI. When a revision involves a change in project size, the person shall pay, in addition to the revision fee, the difference between the fee for the original project size and the revised project size according to Table VI. If the project size does not change for the revision, no additional fees based on project size shall be required. Revisions are not accepted for expired notifications.

For all requests of pre-approved Procedure 5 plans submitted in accordance with Rule 1403(d)(1)(D)(i)(V)(2), the person shall pay the full fee for the first evaluation and shall pay fifty percent (50%) of the applicable fee for each subsequent pre-approved Procedure 5 plan evaluation.

(p) **Lead Abatement Notification Fees**

A person who is required by a federal or District rule to submit written notice of intent to abate lead shall, at the time of delivery of notification, pay the appropriate renovation and abatement fee specified in Table VI of this rule. Fees are per notification and multiple fees may apply. No notification shall be considered received unless it is accompanied by the required payment. Each revision of a notification shall require a payment of the Revision to Notification fee in Table VI. When a revision involves a change in project size, the person shall pay, in addition to the revision fee, the difference between the fee for the original project size and the revised project size according to Table VI. If the project size does not change for the revision, no additional fees based on project size shall be required. Revisions are not accepted for expired notifications.

(q) **NESHAP Evaluation Fee**

- (1) At the time of filing an application for a Change of Operating Conditions submitted solely to comply with the requirements of a NESHAP, a NESHAP Evaluation Fee shall be paid. The fee shall be \$348.01. Additional fees shall be assessed at a rate of \$172.01 per hour for time spent in the evaluation in excess of two (2) hours, to a maximum total fee not to exceed the applicable Change of Conditions Fees listed for each affected piece of equipment as specified in Table FEE RATE-A.
- (2) Payment of all applicable fees shall be due in thirty (30) days from the date of personal service, ~~or mailing,~~ or electronic transmission of the notification

of the amount due. Non-payment of the fees within this time period will result in expiration of the permit. For the purpose of this paragraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the business day following the Saturday, Sunday, or the state holiday, with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date. No further applications will be accepted until such time as all overdue fees have been fully paid.

(r) Fees for Certification of Clean Air Solvents

At the time of filing for a Clean Air Solvent certificate, the applicant shall submit a fee of \$1,503.77 for each product to be tested. Additional fees will be assessed at the rate of \$135.77 per hour for time spent on the analysis/certification process in excess of 12 hours. Adjustments, including refunds or additional billings, shall be made to the submitted fee as necessary. A Clean Air Solvent Certificate shall be valid for five (5) years from the date of issuance and shall be renewed upon the determination of the Executive Officer that the product(s) containing a Clean Air Solvent continue(s) to meet Clean Air Solvent criteria, and has not been reformulated.

(s) Fees for Certification of Consumer Cleaning Products Used at Institutional and Commercial Facilities

At the time of filing for certification of any Consumer Cleaning Products Used at Institutional and Commercial Facilities, the applicant shall submit a fee of \$1,503.77 for each product to be tested, plus an additional fee of \$300 for quantification of total nitrogen, total phosphorous, and trace metals by a contracting laboratory. Additional fees will be assessed at the rate of \$135.77 per hour for time spent on the analysis/certification process in excess of 12 hours. Adjustments, including refunds or additional billings, shall be made to the submitted fee as necessary. A Consumer Cleaning Products Used at Institutional and Commercial Facilities Certificate shall be valid for three (3) years from the date of issuance and shall be renewed upon the determination of the Executive Officer that the product(s) certified as a Consumer Cleaning Products Used at Institutional and

Commercial Facilities continue(s) to meet Consumer Cleaning Products Used at Institutional and Commercial Facilities criteria, and has not been reformulated.

(t) All Facility Registration Holders

(1) Applicability

The requirements of this subdivision apply to all holders of a Facility Registration.

(2) Rule 301 Applicability

Unless specifically stated otherwise, all Facility Registration holders shall be subject to all other provisions of Rule 301 - Permit Fees.

(3) Fee Applicability to Existing Facilities

Existing facilities entering the Facility Registration Program shall pay no fee if no changes are initiated by actions of the permittee to the existing permit terms or conditions or to the draft Facility Registration prepared by the District.

(4) Duplicate of Facility Registrations

A request for a duplicate of a Facility Registration shall be made in writing by the permittee. The permittee shall, at the time a written request is submitted, pay \$27.92 for the first page and \$1.97 for each additional page in the Facility Registration.

(5) Reissued Facility Registrations

A request for a reissued Facility Registration shall be made in writing by the permittee where there is a name or address change without a change of operator or location, or for an administrative change in permit description or a change in permit conditions to reflect actual operating conditions, which do not require any engineering evaluation, and do not cause a change in emissions. The permittee shall, at the time a written request is submitted, pay \$216.14 for the first equipment listed in the Facility Registration plus \$1.97 for each additional equipment listed in the Facility Registration.

(u) Fees for Non-permitted Emission Sources Subject to Rule 222

(1) Initial Filing Fee

Prior to the operation of the equipment, the owner/operator of an emission source subject to Rule 222 shall pay to the District an initial non-refundable non-transferable filing and processing fee of \$209.98 for each emission source.

(2) Change of Operator/Location

If the owner/operator or the location of an emission source subject to Rule 222 changes, the current owner/operator must file a new application for Rule 222 and pay to the District an initial non-refundable non-transferable filing and processing fee of \$209.98 for each emission source.

(3) Annual Renewal Fee

On an annual re-filing date set by the Executive Officer the owner/operator of a source subject to Rule 222 shall pay a renewal fee of \$209.98 (except for non-retrofitted boilers). At least thirty (30) days before such annual re-filing date, all owners/operators of emission sources subject to Rule 222 will be notified by ~~either electronic or regular mail,~~ electronic mail, or other electronic means, of the amount to be paid and the due date for the annual re-filing fee.

(4) Notification of Expiration

If the annual re-filing fee is not paid within thirty (30) days after the due date, the filing will expire and no longer be valid. In such case, the owner/operator will be notified by ~~either electronic or regular mail,~~ electronic mail, or other electronic means, of the expiration and the consequences of operating equipment without a valid Rule 222 filing.

(5) Reinstating Expired Filings

To re-establish expired filings, the owner/operator of a source subject to Rule 222 shall pay a reinstatement fee of fifty percent (50%) of the amount of fees due per emission source. Payment of all overdue fees shall be made in addition to the reinstatement surcharge. Payment of such fees shall be made within one year of the date of expiration. If the period of expiration has exceeded one year or the affected equipment has been altered, the owner/operator of an emission source subject to Rule 222 shall file a new application and pay all overdue fees.

(v) Fees for Expedited Processing Requests

An applicant has the option to request expedited processing for an application for a permit, CEQA work, an application for an ERC/STC, Air Dispersion Modeling, HRA, Source Test Protocols and Report Fees and Asbestos Procedure 4 & 5 notifications. A request for expedited processing pursuant to this section shall be made upon initial application submittal. Expedited processing is intended to be performed by District Staff strictly during overtime work. Approval of such a request is contingent upon the District having necessary procedures in place to

implement an expedited processing program and having available qualified staff for overtime work to perform the processing requested. The applicant shall be notified whether or not the request for expedited processing has been accepted within 30 days of submittal of the request. If the request for expedited processing is not accepted by the District, the additional fee paid for expedited processing will be refunded to the applicant.

(1) Permit Processing Fee

Fees for requested expedited processing of permit applications will be an additional fee of fifty percent (50%) of the applicable base permit processing fee (after taking any discounts for identical equipment but not the higher fee for operating without a permit) by equipment schedule. For schedule F and higher as shown in the table below in this paragraph, expedited processing fees will include an additional hourly fee, as set forth in the applicable “Non-Title V Added Base Hourly Fee” or “Title V Added Base Hourly Fee” columns, when the processing time exceeds times as indicated in the “Processing Time Exceeding” column; but not to exceed the total amounts in the applicable “Non-Title V Maximum Added Base Cap Fee” or “Title V Maximum Added Base Cap Fee” columns.

Processing Time Exceeding	Schedule	Non-Title V Added Base Hourly Fee	Non-Title V Maximum Added Base Cap Fee	Title V Added Base Hourly Fee	Title V Maximum Added Base Cap Fee
FY 2018-19					
99 hours	F	\$279.08	\$52,454.40	\$316.02	\$59,398.44
117 hours	G	\$279.08	\$89,866.71	\$316.02	\$101,763.49
182 hours	H	\$279.08	\$114,265.30	\$316.02	\$129,392.03
FY 2019-20					
99 hours	F	\$279.08	\$52,454.40	\$349.71	\$65,730.31
117 hours	G	\$279.08	\$89,866.71	\$349.71	\$112,611.47
182 hours	H	\$279.08	\$114,265.30	\$349.71	\$143,185.22

(2) CEQA Fee

Fees for requested expedited CEQA work will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to the staff's hourly rate of \$172.01 plus \$89.21 per hour (one half of hourly plus mileage). The established CEQA fees found in the provisions of Rule 301(j) shall be paid at the time of filing with the additional overtime costs billed following permit issuance. Notwithstanding other provisions of this section, fees are due at the time specified in the bill which will allow a reasonable time for payment. This proposal is contingent upon the ability of the District to implement the necessary policies and procedures and the availability of qualified staff for overtime work.

(3) CEMS, FSMS, and ACEMS Fee

Fees for requested expedited processing of CEMS, FSMS, and ACEMS applications will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to the staff's hourly

rate of \$172.01 plus \$89.21 per hour (one half of hourly plus mileage). The established “Basic Fee” schedule found in the CEMS, FSMS, and ACEMS Fee Schedule in TABLE IIB shall be paid at the time of filing with the additional overtime costs billed following project completion. Notwithstanding other provisions of this section, fees are due at the time specified in the bill which will allow a reasonable time for payment. A request for expedited CEMS, FSMS, and ACEMS application work can only be made upon initial work submittal, and approval of such a request is contingent upon the ability of the District to implement the necessary policies and procedures and the availability of qualified staff for overtime work.

(4) Air Dispersion Modeling and HRA Fees

Fees for requested expedited review and evaluation of air dispersion modeling and health risk assessments will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to the staff’s hourly rate of \$144.05 plus \$74.72 per hour (one half of hourly plus mileage).

(5) ERC/STC Application Fees

Fees for requested expedited review and evaluation of ERC/STC application fees will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to the staff’s hourly rate of \$172.01 plus \$89.21 per hour (one half of hourly plus mileage).

(6) Procedure 4 & 5 Evaluation

Fees for requested expedited reviews and evaluation of Procedure 4 or 5 plans per Rule 301(o) Asbestos Fees will be an additional fee of fifty percent (50%) of the Procedure 4 & 5 plan evaluation fee.

(w) Enforcement Inspection Fees for Statewide Portable Equipment Registration Program (PERP)

(1) Registered Portable Equipment Unit Inspection Fee

Registered portable equipment units are those which emit PM10 in excess of that emitted by an associated engine alone. An hourly fee of \$98.00 shall be assessed for a triennial portable equipment unit inspection, including the subsequent investigation and resolution of violations, if any, of applicable state and federal requirements, not to exceed \$500.00 per unit.

- (2) Registered Tactical Support Equipment (TSE) Inspection Fee
- Registered TSE includes registered equipment using a portable engine, including turbines, that meet military specifications, owned by the U.S. Department of Defense, the U.S. military services, or its allies, and used in combat, combat support, combat service support, tactical or relief operations, or training for such operations.
- (A) To determine compliance with all applicable state and federal requirements, each registered TSE unit will be inspected once per calendar year.
- (i) For registered TSE units determined to be in compliance with all applicable state and federal requirements during the annual inspection:
- (a) A fee for the annual inspection of a single registered TSE unit shall be assessed at a unit cost of \$75.00.
- (b) A fee for annual inspection of two or more registered TSE units at a single location shall be assessed at the lesser of the following costs:
- (1) The actual time to conduct the inspection at the rate of \$100.25 per hour; or
- (2) A unit cost of \$75.00 per registered TSE unit inspected.
- (ii) For registered TSE units determined to be out of compliance with one or more applicable state or federal requirements during the annual inspection, fees for the annual inspection (including the subsequent investigation and resolution of the violation) shall be assessed at the lesser of the following costs:
- (1) The actual time to conduct the inspection at the rate of \$100.25 per hour; or
- (2) A unit cost of \$75.00 per registered TSE unit inspected.
- (3) Off-hour Inspection Fee
- In addition to the inspection fees stated above, any arranged inspections requested by the holder of the registration that are scheduled outside of District normal business hours may be assessed an additional off-hour inspection fee of \$40.96 per hour for the time necessary to complete the inspection.

(4) Notice to Pay and Late Payment Surcharge

A notice to pay the inspection fees will be sent by mail, electronic mail, or other electronic means, ~~mailed~~ to the registration holder. Fees are due and payable immediately upon receipt of the notice to pay. All inspection fees required under this section are due within 30 days of the invoice date. If fee payment is not received by the thirtieth (30th) day following the date of the notice to pay, the fee shall be considered late and, a late payment surcharge of \$70.11 per portable engine or equipment unit shall be imposed, not to exceed \$138.73 for any notice to pay. For the purpose of this subparagraph, the inspection fee payment shall be considered to be timely received by the District if it is delivered, postmarked, or electronically paid ~~by the United States Postal Service~~ on or before the thirtieth (30th) day following the date of the notice to pay. If the thirtieth (30th) day falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the thirtieth (30th) day. Failure to pay the inspection fees and any late payment surcharge within 120 days of the date of the initial notice to pay may result in the suspension or revocation of the registration by CARB. Once a registration has been suspended, CARB will not consider reinstatement until all fees due, including late payment surcharge fees, have been paid in full.

(x) Rule 1149, Rule 1166, and Rule 1466 Notification Fees

- (1) Any person who is required by the District to submit a written notice pursuant to Rule 1149, Rule 1166, Rule 1466, or for soil vapor extraction projects shall pay a notification fee of \$62.92 per notification.
- (2) Notifications pursuant to Rule 1466 paragraph (f)(2) shall be exempt from this subdivision.

(y) Fees for the Certification of Equipment Subject to the Provisions of Rules 1111, 1121 and 1146.2

(1) Initial Certification Fee

Any person requesting certification pursuant to Rules 1111, 1121 or 1146.2 shall pay a fee of \$579.97 per certification letter for each family of model series certified. This fee shall be paid in addition to the fees paid to review any associated source test report(s).

- (2) Additional Fees for Modification or Extension of Families to Include a New Model(s)
Any person requesting a modification or extension of a certification already issued to include a new model(s) shall pay an additional fee of \$290.00 for certification of new models added by extension to the previously certified model series per request.
 - (3) Failure to pay all certification fees shall result in the revocation of each certified piece of equipment that was evaluated for which fee payment has not been received within 30 days after the due date.
- (z) “No Show” Fee for Rule 461 – Gasoline Dispensing Equipment Scheduled Testing
 - (1) Reverification, and Performance Testing
If a testing company and/or tester does not show for a Reverification test, or Performance test within one hour of its original scheduled time, and an SCAQMD inspector arrives for the inspection, a “No Show” fee of \$426.45 shall be charged to the testing company and/or tester. The fee shall be paid within 60 days of the date of the invoice. If the fee is not paid, the account will become delinquent 30 days after the due date. Any delinquent account holder will not be allowed to schedule any future tests within SCAQMD jurisdiction until all overdue fees are paid in full.
 - (2) Pre-Backfill Inspection
If a contracting company is not ready for a Pre-Backfill inspection of its equipment at the original scheduled time, and/or did not notify the SCAQMD inspector of postponement/cancellation at least three hours prior to the scheduled time, a “No Show” fee of \$426.45 shall be charged to the contracting company. The fee shall be paid within 60 days of the date of the invoice. If the fee is not paid, the account will become delinquent 30 days after the due date. Any delinquent account holder will not be allowed to schedule any future pre-backfill inspections within SCAQMD jurisdiction until all overdue fees are paid in full.
- (aa) Refinery Related Community Air Monitoring System Annual Operating and Maintenance Fees
 - (1) The owner or operator of a petroleum refinery subject to Rule 1180 shall pay an annual operating and maintenance fee for a refinery-related community air monitoring system designed, developed, installed, operated,

and maintained by SCAQMD in accordance with California Health and Safety Code Section 42705.6.

- (2) The annual operating and maintenance fee per facility required by paragraph (aa)(1) shall be as follows:

Facility Name* and Location	Annual Operating and Maintenance Fee
Andeavor Corporation (Carson)	\$871,086.00
Andeavor Corporation (Wilmington)	\$435,543.00
Chevron U.S.A, Inc. (El Segundo)	\$871,086.00
Delek U.S. Holdings, Inc. (Paramount)	\$217,771.50
Phillips 66 Company (Carson)	\$435,543.00
Phillips 66 Company (Wilmington)	\$435,543.00
PBF Energy, Torrance Refining Company (Torrance)	\$871,086.00
Valero Energy (Wilmington)	\$435,543.00

*Based on the current facility names. Any subsequent owner(s) or operator(s) of the above listed facilities shall be subject to this rule.

- (3) The annual operating and maintenance fee required by this subdivision shall be billed with the annual operating permit renewal fee required by subdivision (d) beginning in calendar year 2020. If the annual operating and maintenance fee required by this subdivision is not paid in full within sixty (60) calendar days of its due date, a ten-percent (10%) penalty shall be imposed every sixty (60) calendar days from the due date.
- (4) No later than January 1, 2022 and every three years thereafter, the Executive Officer shall reassess the annual operating and maintenance fee required by this subdivision to ensure that the fee is consistent with the requirements of the California Health and Safety Code Section 42705.6 (f)(1) and (f)(2).

(ab) **Defense of Permit**

Within 10 days of receiving a complaint or other legal process initiating a challenge to the SCAQMD's issuance of a permit, the SCAQMD shall notify the applicant or permit holder in writing. The applicant or permit holder may, within 30 days of posting of the notice, request revocation of the permit or cancellation of the

application. An applicant or permit holder not requesting revocation or cancellation within 30 days of receipt of notice from the District shall be responsible for reimbursement to the District for all reasonable and necessary costs to defend the issuance of a permit or permit provisions against a legal challenge, including attorney's fees and legal costs. The Executive Officer will invoice the applicant or permit holder for fees and legal costs at the conclusion of the legal challenge. The SCAQMD and the applicant or permit holder will negotiate an indemnity agreement within 30 days of the notice by SCAQMD to the facility operator. The agreement will include, among other things, attorneys' fees and legal costs. The Executive Officer or designee may execute an indemnity agreement only after receiving authorization from the Administrative Committee. The Executive Officer may in his discretion, waive all or any part of such costs upon a determination that payment for such costs would impose an unreasonable hardship upon the applicant or permit holder.

TABLE FEE RATE-A. FY 2018-19
SUMMARY PERMIT FEE RATES - PERMIT PROCESSING, CHANGE OF
CONDITIONS, ALTERATION/MODIFICATION

Schedule	Non-Title V			Title V		
	Permit Processing	Change of Condition	Alteration/Modification	Permit Processing	Change of Condition	Alteration/Modification
A	\$1,785.79	\$930.20	\$1,785.79	\$2,022.19	\$1,053.34	\$2,022.19
A1	\$1,785.79	\$930.20	\$1,785.79	\$2,022.19	\$1,053.34	\$2,022.19
B	\$2,846.14	\$1,409.95	\$2,846.14	\$3,222.92	\$1,596.61	\$3,222.92
B1	\$4,501.77	\$2,440.17	\$4,501.77	\$5,097.71	\$2,763.20	\$5,097.71
C	\$4,501.77	\$2,440.17	\$4,501.77	\$5,097.71	\$2,763.20	\$5,097.71
D	\$6,213.19	\$4,173.34	\$6,213.19	\$7,035.72	\$4,725.82	\$7,035.72
E	\$7,143.30	\$6,127.48	\$7,143.30	\$8,088.94	\$6,938.66	\$8,088.94
F	\$17,951.51+ T&M	\$8,945.72+ T&M	\$14,230.75+ T&M	\$20,327.97+ T&M	\$10,129.97+ T&M	\$16,114.65+ T&M
G	\$21,188.37+ T&M	\$15,180.30+ T&M	\$17,467.57+ T&M	\$23,993.33+ T&M	\$17,189.91+ T&M	\$19,779.97+ T&M
H	\$32,833.37+ T&M	\$19,247.37+ T&M	\$29,112.58+ T&M	\$37,179.92+ T&M	\$21,795.39+ T&M	\$32,966.58+ T&M

Schedule	Begin Charging Hourly Rate After (hrs)	Non-Title V T& M Rate (\$/hr)	Non-Title V Not to Exceed (\$)	Title V T& M Rate (\$/hr)	Title V Not to Exceed (\$)
F	99	\$186.04	\$34,969.61	\$210.67	\$39,598.97
G	117	\$186.04	\$59,911.11	\$210.67	\$67,842.29
H	182	\$186.04	\$76,176.86	\$210.67	\$86,261.34

**TABLE FEE RATE-A. FY 2019-20 and thereafter
SUMMARY PERMIT FEE RATES - PERMIT PROCESSING, CHANGE OF
CONDITIONS, ALTERATION/MODIFICATION**

Schedule	Non-Title V			Title V		
	Permit Processing	Change of Condition	Alteration/Modification	Permit Processing	Change of Condition	Alteration/Modification
A	\$1,785.79	\$930.20	\$1,785.79	\$2,237.76	\$1,165.62	\$2,237.76
A1	\$1,785.79	\$930.20	\$1,785.79	\$2,237.76	\$1,165.62	\$2,237.76
B	\$2,846.14	\$1,409.95	\$2,846.14	\$3,566.48	\$1,766.81	\$3,566.48
B1	\$4,501.77	\$2,440.17	\$4,501.77	\$5,641.13	\$3,057.76	\$5,641.13
C	\$4,501.77	\$2,440.17	\$4,501.77	\$5,641.13	\$3,057.76	\$5,641.13
D	\$6,213.19	\$4,173.34	\$6,213.19	\$7,785.73	\$5,229.60	\$7,785.73
E	\$7,143.30	\$6,127.48	\$7,143.30	\$8,951.22	\$7,678.32	\$8,951.22
F	\$17,951.51+ T&M	\$8,945.72+ T&M	\$14,230.75+ T&M	\$22,494.94+ T&M	\$11,209.83+ T&M	\$17,832.48+ T&M
G	\$21,188.37+ T&M	\$15,180.30+ T&M	\$17,467.57+ T&M	\$26,551.02+ T&M	\$19,022.35+ T&M	\$21,888.51+ T&M
H	\$32,833.37+ T&M	\$19,247.37+ T&M	\$29,112.58+ T&M	\$41,143.30+ T&M	\$24,118.77+ T&M	\$36,480.81+ T&M

Schedule	Begin Charging Hourly Rate After (hrs)	Non-Title V T& M Rate (\$/hr)	Non-Title V Not to Exceed (\$)	Title V T& M Rate (\$/hr)	Title V Not to Exceed (\$)
F	99	\$186.04	\$34,969.61	\$233.13	\$43,820.23
G	117	\$186.04	\$59,911.11	\$233.13	\$75,074.28
H	182	\$186.04	\$76,176.86	\$233.13	\$95,456.79

TABLE FEE RATE-B. SUMMARY OF ERC PROCESSING RATES, BANKING, CHANGE OF TITLE, ALTERATION/MODIFICATION, CONVERSION TO SHORT TERM CREDITS, RE-ISSUANCE OF SHORT TERM CREDITS, RETIREMENT OF SHORT TERM CREDITS FOR TRANSFER INTO RULE 2202, and TRANSFER OF ERCs OUT OF RULE 2202

Schedule I	Non-Title V	Title V	
		FY 2018-19	FY 2019-20 and thereafter
Banking Application	\$4,608.06	\$5,218.08	\$5,774.33
Change of Title	\$814.00	\$921.75	\$1,020.01
Alteration/Modification	\$814.00	\$921.75	\$1,020.01
Conversion to Short Term Credits	\$814.00	\$921.75	\$1,020.01
Re-Issuance of Short Term Credits	\$814.00	\$921.75	\$1,020.01
Retirement of Short Term Emission Credits for Transfer into Rule 2202 and Transfer of ERCs Out of Rule 2202	\$273.76	\$310.01	\$343.06

TABLE FEE RATE-C. SUMMARY OF PERMIT FEE RATES
CHANGE OF OPERATOR^a

Facility Type	Non-Title V	Title V
Small Business	\$248.03	\$280.86 for FY 2018-19 and \$310.79 for FY 2019-20 and thereafter
Non-Small Business	\$681.14	\$771.30 for FY 2018-19 and \$853.53 for FY 2019-20 and thereafter

^a Fees are for each permit unit application and apply to all facilities, including RECLAIM facilities. The change of operator fee for Non-RECLAIM Title V facilities shall not exceed \$9,593.22 for FY 2018-19 and \$10,615.86 for FY 2019-20 and thereafter per facility and for all other Non-RECLAIM facilities shall not exceed \$16,943.43 per facility. There is no limit to the change of operator fees for RECLAIM facilities.

TABLE IA - PERMIT FEE RATE SCHEDULES FOR CONTROL EQUIPMENT

Equipment/Process	Schedule
Abatement System/HEPA, Asbestos, Lead	B
Activated Carbon Adsorber, Venting Single Source (s.s.=single source)	B
Activated Carbon Adsorber, Venting Multiple Source (m.s.=multiple sources)	C
Activated Carbon Adsorber, Other	D
Activated Carbon Adsorber, Drum Venting Toxic Source (t.s. = toxic source)	C
Activated Carbon Adsorber, with regeneration	E
Afterburner (<= 1 MMBTU/hr, venting s.s.)	B
Afterburner (<= 1 MMBTU/hr, venting m.s.)	C
Afterburner, Catalytic for Bakery Oven	C
Afterburner, Direct Flame	D
Afterburner/Oxidizer: Regenerative Ceramic/Hot Rock Bed Type, Recuperative Thermal	D
Afterburner/Oxidizer, Catalytic	D
Air Filter, Custom	C
Amine (or DEA) Regeneration Unit ¹	D
Amine Treating Unit ¹	D
Baghouse, Ambient (<= 100 FT ²)	A
Baghouse, Ambient (> 100 - 500 FT ²)	B
Baghouse, Ambient (> 500 FT ²)	C
Baghouse, Hot (> 350 F)	D
Biofilter (<= 100 cfm)	B
Biofilter (> 100 cfm)	C
Boiler as Afterburner	D
CO Boiler	F
Condenser	C
Control Systems, two in series	C
Control Systems, three in series	D
Control Systems, four or more in series	E
Control Systems, Venting Plasma Arc Cutters	B1
Cyclone	B
Dry Filter (<= 100 FT ²)	A
Dry Filter (> 100 - 500 FT ²)	B

Equipment/Process	Schedule
Dry Filter (> 500 FT ²)	C
Dust Collector/HEPA, other Rule 1401 toxics	C
Electrostatic Precipitator, Restaurant	B
Electrostatic Precipitator, Asphalt Batch Equipment	C
Electrostatic Precipitator, Extruder	B
Electrostatic Precipitator, < 3000 CFM	B
Electrostatic Precipitator, => 3000 CFM	D
Electrostatic Precipitator for Fluid Catalytic Cracking Unit (FCCU)	H
Ethylene Oxide Sterilization, Control, Hospital	B
Flare, Landfill/Digester Gas, Enclosed	E
Flare, Landfill/Digester Gas, Open	C
Flare, Portable	B
Flare System, Refinery ²	F
Flare Other	C
Flue Gas Desulfurization ¹	D
Gas Absorption Unit ³	D
Gas Scrubbing System ¹	F
Incinerator, Afterburner	D
Mesh pads, for toxics gas stream	C
Mesh pads, for other acid mists	B
Mist Control	B
Mist Eliminator with HEPA	C
Negative Air Machine/HEPA, Asbestos, Lead	A
Non-Selective Catalytic Reduction	B
Odor Control Unit	D
Relief and Blowdown System ⁴	D
Scrubber, Biofiltration	C
Scrubber Controlling NO _x venting	D
Scrubber Controlling SO _x venting	D
Scrubber Controlling HCL or NH ₃ venting s.s.	B
Scrubber Controlling HCL or NH ₃ venting m.s.	C
Scrubber, NO _x , multistage	D
Scrubber, NO _x , single stage	C
Scrubber, Odor, < 5000 cfm	C

TABLE IA - PERMIT FEE RATE SCHEDULES FOR CONTROL EQUIPMENT

Equipment/Process	Schedule
Scrubber, Other venting s.s.	B
Scrubber, Other venting m.s.	C
Scrubber, Other Chemical venting s.s.	B
Scrubber, Other Chemical venting m.s.	D
Scrubber, Particulates venting s.s.	B
Scrubber, Particulates venting m.s.	C
Scrubber, Particulates venting t.s.	D
Scrubber, Restaurant	B
Scrubber, Toxics venting	D
Scrubber, Venturi venting s.s.	B
Scrubber, Venturi venting m.s.	C
Scrubber, Venturi venting t.s.	C
Scrubber, Water (no packing)	B
Selective Catalytic Reduction (SCR)	C
Settling Chamber	B
Ship Hold Hatch Cover	A
Slop Oil Recovery System	D
Sour Water Oxidizer Unit ⁵	D
Sour Water Stripper ⁶	D
Sparger	B
Spent Acid Storage & Treating Facility ⁷	E
Spent Carbon Regeneration System	D
Spent Caustic Separation System ⁸	D
Spray Booth/Enclosure, Other	B
Spray Booth/Enclosure, Powder Coating System with single or multiple APC for particulates	B

Equipment/Process	Schedule
Spray Booth, Metallizing	C
Spray Booth with Carbon Adsorber (non-regenerative)	C
Spray Booths (multiple) with Carbon Adsorber (non-regenerative)	D
Spray Booth(s) with Carbon Adsorber (regenerative)	E
Spray Booth(s) (1 to 5) with Afterburner/Oxidizer (Regenerative/Recuperative)	D
Spray Booths (>5) with Afterburner/Oxidizer (Regenerative/Recuperative)	E
Spray Booth, Automotive, with Multiple VOC Control Equipment	C
Spray Booth with Multiple VOC Control	D
Spray Booths (multiple) with Multiple VOC Control Equipment	E
Storm Water Handling & Treating System ⁹	E
Sulfur Recovery Equipment ⁷	H
Tail Gas Incineration	D
Tail Gas Unit ¹⁰	H
Storage Tank, Degassing Unit	D
Ultraviolet Oxidation	D
Vapor Balance System ¹¹	B
Vapor Recovery, Serving Crude Oil Production ¹¹	D
Vapor Recovery, Serving Refinery Unit ¹¹	E
Waste Gas Incineration Unit	E

¹ Including, but not limited to, all or part of the following: Accumulators, Columns, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels

² Including, but not limited to, all or part of the following: Flare, Compressors, Drums, Knock Out Pots, Pots, Vessels

³ Including, but not limited to, all or part of the following: Accumulators, Columns, Condensers, Drums, Heat Exchangers, Knock

Out Pots, Pots, Pumps, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels

⁴ Including, but not limited to, all or part of the following: Compressors, Drums, Knock Out Pots, Pots

⁵ Including, but not limited to, all or part of the following: Accumulators, Columns, Drums, Knock Out Pots, Tanks, Vessels

⁶ Including, but not limited to, all or part of the following: Condensers, Coolers, Drums, Sumps, Vessels

TABLE IA - PERMIT FEE RATE SCHEDULES FOR CONTROL EQUIPMENT

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- ⁷ Including, but not limited to, all or part of the following: Accumulators, Clarifier, Columns, Compressors, Condensers, Drums, Filters, Filter Presses, Heat Exchangers, Knock Out Pots, Pits, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, towers, Vessels
- ⁸ Including, but not limited to, all or part of the following: Process Tanks, Separators, Tanks
- ⁹ Including, but not limited to, all or part of the following: Air Floatation Units, Floatation

- Units, Filter Presses, Clarifiers, Settling Tanks, Waste Water Separators, Tanks
- ¹⁰ Including, but not limited to, all or part of the following: Absorbers, Condensers, Coolers, Drums, Heat Exchangers, Knock Out Pots, Reactors, Tanks, Vessels
- ¹¹ Including, but not limited to, all or part of the following: Absorbers, Compressors, Condensers, Knock Out Pots, Pumps, Saturators

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Abatement System, Asbestos, Lead	B	Aggregate Production/Crushing (< 5000 tpd) Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Crushers, Cyclones, Log Washers, Mixers, Screens, Vibrating Grizzlies, Weigh Stations	C
Abrasive Blasting (Cabinet, Mach., Room)	B	Aggregate Production/Crushing (>= 5000 tpd) Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Crushers, Cyclones, Log Washers, Mixers, Screens, Vibrating Grizzlies, Weigh Stations	D
Abrasive Blasting (Open)	A	Aggregate Screening Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Cyclones, Screens, Weigh Stations	C
Absorption Chillers, Gas-Fired, < 5 MM Btu/hr	B	Air Strippers	C
Absorption Chillers, Gas-Fired, => 5 MM Btu/hr	C	Aircraft Fueling Facility Including, but not limited to, all or part of the following: Storage Tanks, Dispensing Nozzles	D
Acetylene Purification System Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C	Alkylation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Acid Treating Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Ammonia Mfg. Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Coolers, Drums, Ejectors, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
Adhesives Organic Additions Including, but not limited to, all or part of the following: Reactors, Mixers, Process Tanks, Vessels	C	Ammonia Vaporization Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Coolers, Drums, Ejectors, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
Adsorption Chillers, Gas-Fired, < 5 MM Btu/hr	B		
Adsorption Chillers, Gas-Fired, => 5 MM Btu/hr	C		
Adsorption, Other	B		
Aeration Potable Water	C		
Aggregate, Tank Truck Loading/Conveying Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Weigh Stations	B		
Aggregate Production, with Dryer Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Dryers, Feeders, Hoppers, Crushers, Cyclones, Log Washers, Mixers, Screens, Vibrating Grizzlies, Weigh Stations	E		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Animal Feed Processing, Conveying Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	B	Battery Charging/Manufacturing Including, but not limited to, all or part of the following: Cutters, Crushers, Separators, Process Tanks, Conveyors	C
Animal Feed Processing, Other Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators, Mixers, Feeders, Grinders	C	Benzene/Toluene/Xylene Production Equip. Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Anodizing (sulfuric, phosphoric)	B	Beryllium Machining and Control Including, but not limited to, all or part of the following: Machining Operations, Filters, Baghouses,	C
Aqueous Ammonia Transfer & Storage	C	Bleach Manufacturing Including, but not limited to, all or part of the following: Accumulators, Columns, Com-pressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Tanks, Towers, Vessels	B
Aromatics Recovery Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Blending, Other	B
Asphalt Air Blowing	B	Boiler/hot water heater, various locations, diesel/oil fired (< 300,000 BTU/hr)	A
Asphalt Blending/Batching Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Cyclones, Dryers, Feeders, Hoppers, Knock Out Pots, Mixers, Screens, Tanks, Weigh Stations	E	Boiler/hot water heater, single facility, portable, diesel/oil fired (< 600,000 BTU/hr)	A
Asphalt Coating	C	Boiler, Landfill/Digester Gas (< 5 MMBTU/hr)	B
Asphalt Day Tanker/Tar Pot	A	Boiler, Landfill/Digester Gas (5 to 20 MMBTU/hr)	C
Asphalt Refining Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Boiler, Landfill/Digester Gas (> 20 to 50 MMBTU/hr)	D
Asphalt Roofing Line Including, but not limited to, all or part of the following: Pumps, Conveyors, Process Tanks, Coater Operations, Cutters	C	Boiler, Landfill/Digester Gas (>50MMBTU/hr)	F
Asphalt Roofing Saturator	D	Boiler, Natural gas-fired, 5 – 20 MM BTU/hr	C
Asphalt-Rubber Spraying	B	Boiler, Other Fuel (< 5MMBTU/hr)	B
Auto Body Shredding	C	Boiler, Other Fuel (5 - 20 MMBTU/hr)	C
Autoclave, Non-sterilizing Type	B	Boiler, Other Fuel (> 20 - 50 MMBTU/hr)	D
		Boiler, Other Fuel (> 50 MMBTU/hr)	E
		Boiler, Utility (> 50 MW)	H
		Brake Shoes, Grinding, Bonding and Debonding, Deriveter	B
		Bulk Chemical Terminal	B

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Bulk Loading/Unloading Stn (< 50,000 GPD)	B	Charbroiler with Integrated Control	B
Bulk Loading/Unloading Rack (50,000 - 200,000 GPD)	D	Charbroiler, Food Manufacturing	C
Bulk Loading/Unloading Rack (> 200,000 GPD)	E	Chemical Additive Injection System Including, but not limited to, all or part of the following: Injectors, Compressors, Pumps	C
Bulk Loading/Unloading	C	Chip Dryer	D
Carbon Dioxide Production Facility Including, but not limited to, all or part of the following: Separator, Knockout Pot, Scrubber, Chiller, Pumps, Blowers, Oil Separator, Compressor, Intercoolers, Filters, Cooling Tower	F	Chippers, Greenwaste, not including I.C. Engine	A
Carpet Processing System Including, but not limited to, all or part of the following: Process Tanks, Dryers, Carpet Beaters, Carpet Shears	D	Circuit Board Etchers	B
Catalyst Handling System Including, but not limited to, all or part of the following: Centrifuge, Bins, Conveyors, Hoppers, Cyclones, Screens, Tanks, Weigh Stations	C	Cleaning, Miscellaneous	B
Catalyst Mfg./Calcining Including, but not limited to, all or part of the following: Bins, Conveyors, Reactors, Mixers, Process Tanks, Kilns	D	Coal Bulk Loading Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Loading Arms, Weigh Stations	E
Catalyst Storage (Hoppers)	C	Coal Research Pilot / Equip (0-15 MMBTU/hr)	C
Catalytic Reforming Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Coal Research Pilot / Equip (> 15 MMBTU/hr)	D
Caustic Treating Unit Including, but not limited to, all or part of the following: Knock Out Pots, Tanks, Towers, Vessels	E	Coal Tar Treating Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
Cement Marine Loading & Unloading Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Loading & Unloading Arms, Weigh Stations	E	Coating & Drying Equipment, Continuous Organic, Web Type Including, but not limited to, all or part of the following: Coater Operations, Process Tanks, Dryers	C
Cement Packaging Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Weigh Stations	C	Coffee Roaster < 50 lbs capacity with integrated afterburner	B
Cement Truck Loading	C	Coffee Roasting, (11-49 lb roaster capacity Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Roasters, Coolers	A
Charbroiler, Eating Establishment	A	Coffee Roasting, 50-99 lb roaster capacity Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Roasters, Coolers	B
		Coffee Roasting, 100 lb or more roaster capacity Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Roasters, Coolers	C

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Coke Handling & Storage Facility Including, but not limited to, al or part of the following: Centrifuge, Bins, Conveyors, Clarifier, Hoppers, Cyclones, Screens, Tanks, Weigh Stations	E	Crude Oil, Distillation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Composting, in vessel Including, but not limited to, all or part of the following: Bins, Conveyors, Hoppers	C	Crude Oil/Gas/Water Separation System (< 30 BPD)** Including, but not limited to, all or part of the following: Adsorbers, Oil Water Separators, Oil Gas Water Separators, Pits, Sumps, Tanks, Vessels	C
Concrete/Asphalt Crushing Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Crushers, Cyclones, Screens, Vibrating Grizzlies, Weigh Stations	C	Crude Oil/Gas/Water Separation System, (>= 30 BPD & < 400 BPD)** Including, but not limited to, all or part of the following: Adsorbers, Oil Water Separators, Oil Gas Water Separators, Pits, Sumps, Tanks, Vessels	C
Concrete Batch Equipment Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Dryers, Feeders, Hoppers, Crushers, Cyclones, Log Washers, Mixers, Screens, Vibrating Grizzlies, Weigh Stations	C	Crude Oil/Gas/Water Separation System, (>= 400 BPD)** Including, but not limited to, all or part of the following: Adsorbers, Oil Water Separators, Oil Gas Water Separators, Pits, Sumps, Tanks, Vessels	E
Confined Animal Facility	A	Decorating Lehr	C
Container Filling, Liquid	B	Decorator	B
Conveying, Other	B	Deep-Fat Fryer	C
Cooling Tower, Petroleum Operations	C	Dehydration Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
Cooling Tower, Other	B	Degreaser, Cold Solvent Dipping	B
Core Oven	B	Degreaser, Cold Solvent Spray	C
Cotton Ginning System Including, but not limited to, all or part of the following: Hoppers, Conveyors, Separators, Screens, Classifiers, Mixers	D	Degreaser, (<= 1 lb VOC/day)	B
Crankcase Oil, Loading and Unloading	C	Degreaser (> 1 lb VOC/day)	B
Crematory	C	Degreaser, (VOCw/Toxics)	C
Crude Oil, Cracking Catalytic Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	G		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Delayed Coking Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Evaporator, Other	B
Deposition on Ceramics (< 5 pieces)	B	Extraction - Benzene Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
Deposition on Ceramics (5 or more pieces)	C	Extruder	B
Desalting Unit Including, but not limited to, all or part of the following: Mixers, Pumps, Reactors, Settling Tanks, Sumps, Tanks, Vessels	C	Extrusion System (Multiple Units) Including, but not limited to, all or part of the following: Extruders	C
Die Casting Equipment	C	Fatty Acid Mfg.	C
Digester Gas Desulfurization System Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Tanks, Towers, Vessels	C	Feathers, Size Classification	A
Dip Tank, Coating	B	Feed Handling (combining conveying and loading)	D
Dip Tank, (<= 3 gal/day)	B	Fermentation/Brewing Including, but not limited to, all or part of the following: Hoppers, Conveyors, Brew Kettles	C
Distillation, Other Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C	Fertilizer, Natural, Packaging/ Processing Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Loading Arms, Weigh Stations	B
Drilling Rig, Crude Oil Prod.	C	Fertilizer, Synthetic, Production Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Mixers, Dryers, Process Tanks, Reactors, Hoppers, Loading Arms, Weigh Stations	C
Drop Forge	B	Fiberglass Panel Mfg Including, but not limited to, all or part of the following: Conveyors, Mixers, Reactors, Process Tanks, Cutters	C
Dry Cleaning & Associated Control Equipment	A	Filament Winder, Rule 1401 Toxics	C
Dryer for Organic Material	C	Filament Winder, Other	B
Drying/Laundry	A	Filling Machine, Dry Powder	C
Drying, Other	B	Film Cleaning Machine	B
Emission Reduction Credits [Rule 301(c)(4) and (c)(5)]	I	Flour Handling (combining conveying, packaging, and loadout)	E
End Liner, Can	B	Flour Manufacturing (combining milling and conveying)	E
Ethylene Oxide Sterilization, Hospital	B	Flour Milling Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Mills, Weigh Stations	D
Evaporation, Toxics	C		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Flow Coater	B	Furnace, Frit	C
Fluid Catalytic Cracking Equipment Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	H	Furnace, Galvanizing	C
Fluid Elimination, Waste Water	B	Furnace, Graphitization and Carbonization	C
Foam-in-Place Packaging	A	Furnace, Heat Treating	B
Food Processing Grinding, Blending, Packaging, Conveying, Flavoring	C	Furnace, Other Metallic Operations	C
Fractionation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Furnace, Pot/Crucible	C
Fruit and Vegetable Treating	A	Furnace, Reverberatory	D
Fuel Gas Mixer	C	Furnace, Wire Reclamation	C
Fuel Gas, Treating Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Scrubbers, Settling Tanks, Towers, Vessels	D	Garnetting, Paper/Polyester Including, but not limited to, all or part of the following: Feeders, Conveyors, Condensers, Cutters	C
Fuel Storage & Dispensing Equipment (Rule 461) Including, but not limited to, all or part of the following: Storage Tanks, Dispensing Nozzles	A	Gas Plant Including, but not limited to, all or part of the following: Accumulators, Columns, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Re-generators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Fumigation	A	Gas Turbine, Landfill/Digester Gas, <0.3 MW	B
Furnace, Arc	D	Gas Turbine, Landfill/Digester Gas, => 0.3 MW	E
Furnace, Burn-Off, Armature	C	Gas Turbine, <= 50 MW, other fuel	D
Furnace, Burn-Off, Drum	D	Gas Turbine, > 50 MW, other fuel	G
Furnace, Burn-Off, Engine Parts	C	Gas Turbine, Emergency, < 0.3 MW	A
Furnace, Burn-Off, Paint	C	Gas Turbine, Emergency, => 0.3 MW	C
Furnace, Burn-Off, Wax	C	Gas Turbines (Microturbines only)	A
Furnace, Burn-Off, Other	C	Gas-Oil Cracking Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Furnace, Cupola	D	Gasoline, In-line Blending Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D
Furnace, Electric, Induction and Resistance	C		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Gasoline, Refining Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Grain Cleaning Including, but not limited to, all or part of the following: Air Classifiers, Bins, Conveyors, Bucket Elevators, Hoppers, Mills, Screens, Weigh Stations	C
Gasoline, Separation - Liquid Production Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Grain Handling (combining storage and cleaning)	E
Gasoline, Vapor Gathering System Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Grain Storage	C
Gasoline Blending Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Scrubbers, Settling Tanks, Towers, Vessels	E	Grinder, Size Reduction	B
Gasoline Fractionation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	F	Groundwater Treatment System Including, but not limited to, all or part of the following: Air Strippers, Adsorbers, Process Tanks	C
Gasoline Transfer & Dispensing Facility (See Fuel Storage & Dispensing Equipment)		Gypsum, Calcining Including, but not limited to, all or part of the following: Air Classifiers, Bins, Conveyors, Bucket Elevators, Hoppers, Kilns, Weigh Stations	E
Glass Forming Machine	C	Halon/Refrigerants, Recovery and Recycling Equipment	A1
Glass Furnace < 1TPD	B	Heater, (< 5 MMBTU/hr)	B
Glass Furnace, > 1 - 50 TPD Pull	D	Heater, (5 - 20 MMBTU/hr)	C
Glass Furnace, > 50 TPD Pull	E	Heater, (> 20-50 MMBTU/hr)	D
		Heater, (> 50 MMBTU/hr)	E
		Hot End Coating, (Glass Mfg. Plant)	B
		Hydrant Fueling, Petrol. Middle Distillate Including, but not limited to, all or part of the following: Storage Tanks, Dispensing Nozzles	D
		Hydrocarbons, Misc., Treating Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D
		Hydrogen Desulfurization (HDS) Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	F

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Hydrogen Production Equipment Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	F	Iodine Reaction Including, but not limited to, all or part of the following: Columns, Compressors, Condensers, Coolers, Heat Exchangers, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Tanks, Towers	C
Hydrotreating Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Isomerization Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
IC Engine, (51-500 HP) Cogeneration	B	Jet Engine Test Facility	C
IC Engine, (> 500 HP) Cogeneration	C	Kiln, Natural Gas	C
IC Engine, Emergency	B	Landfill Condensate/Leachate Collection/Storage	B
IC Engine, Landfill/Digester Gas	D	Landfill Gas, Collection, (< 10 Wells)	B
IC Engine, Other, 51-500 HP	B	Landfill Gas, Collection, (10 -50 Wells)	C
IC Engine, Other, > 500 HP	C	Landfill Gas, Collection, (> 50 Wells)	D
Impregnating Equipment	C	Landfill Gas, Treatment	E
Incineration, Hazardous Waste	H	Lime/Limestone, Conveying Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Weigh Stations	C
Incinerator, < 300 lbs/hr, Non-Hazardous	E	Liquid Separation, Other Including, but not limited to, all or part of the following: Process Tanks, Settling Tanks, Separators, Tanks	D
Incinerator, >= 300 lbs/hr, Non-Hazardous	F	Liquid Waste Processing, Hazardous Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Reactors, Process Tanks, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	E
Indoor Shooting Range	B	Liquid Waste Processing, Non Hazardous Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Reactors, Process Tanks, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	C
Ink Mfg./Blending Including, but not limited to, all or part of the following: Process Tanks, Mixers	B	LPG, Tank Truck Loading	D
Inorganic Chemical Mfg. Including, but not limited to, all or part of the following: Process Tanks, Mixers, Reactors	D		
Insecticide Separation/Mfg Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Coolers, Drums, Ejectors, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
LPG, Treating Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Merox Treating Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
LPG Distillation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Metal Deposition Equipment	C
Lube Oil Additive/Lubricant Mfg.	B	Metallic Mineral Production Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Crushers, Cyclones, Log Washers, Mixers, Screens, Vibrating Grizzlies, Weigh Stations	E
Lube Oil Re-refining Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Misc. Solvent Usage at a Premise	B
Marine Bulk Loading/Unloading System, Including, but not limited to, all or part of the following: Absorbers, Compressors, Condensers, Knock Out Pots, Pumps, Reactors, Saturators	D	Mixer, Chemicals	B
Marine Vessel Displaced Vapor Control, Including, but not limited to, all or part of the following: Absorbers, Compressors, Condensers, Knock Out Pots, Pumps, Reactors, Saturators	D	MTBE Production Facility Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Coolers, Drums, Ejectors, Heat Exchangers, Knock Out Pots, Mixers, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	F
Merichem Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Natural Gas Dehydration Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	C
		Natural Gas Odorizers	C
		Natural Gas Stabilization Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Scrubbers, Regenerators, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
		Nut Roasters Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Roasters, Coolers	C

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Nut Shell Drying Including, but not limited to, all or part of the following: Bins, Conveyors, Bucket Elevators, Hoppers, Dryers, Coolers	C	Petroleum Coke Conveying Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	B
Oil/Water Separator (< 10,000 GPD) Including, but not limited to, all or part of the following: Oil Water Separators, Pits, Sumps, Tanks, Vessels	B	Pharmaceutical Mfg. Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Reactors, Process Tanks, Pelletizers, Mixers, Dryers	C
Oil/Water Separator (>= 10,000 GPD) Including, but not limited to, all or part of the following: Oil Water Separators, Pits, Sumps, Tanks, Vessels	C	Pharmaceutical Mfg. Tableting, Coating Vitamins or Herbs	C
Open-Air resin operations	A	Pipe Coating, Asphaltic	B
Oven Bakery	C	Plasma Arc Cutting	B1
Oven, Curing (Rule 1401 toxics)	C	Plastic Mfg., Blow Molding Machine	B
Oven, Other	B	Plastic/Resin Size Reduction Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Feeders, Hoppers, Grinders, Mills, Cyclones, Screens, Weigh Stations	B
Packaging, Other	B	Plastic/Resins Reforming	C
Paint Stripping, Molten Caustic	C	Plastic/Resins Treating	C
Paper Conveying	A	Plastisol Curing Equipment	B
Paper Pulp Products	D	Polystyrene Expansion/Molding	C
Paper Size Reduction	C	Polystyrene Expansion/Packaging	C
Pavement Grinder	B	Polystyrene Extruding/Expanding	B
Pavement Heater	B	Polyurethane Foam Mfg. Including, but not limited to, all or part of the following: Coolers, Heat Exchangers, Pumps, Reactors, Mixers, Process Tanks	C
Pelletizing, Chlorine Compounds Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Pelletizers, Mixers, Dryers	C	Polyurethane Mfg/Production	B
Perlite Furnace	C	Polyurethane Mfg/Rebonding	B
Perlite Handling Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	C	Process Line, Chrome Plating (Hexavalent)	C
Pesticide/Herbicide Mfg. Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Coolers, Drums, Ejectors, Heat Exchangers, Knock Out Pots, Mixers, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Process Line, Chrome Plating (Trivalent)	B
Petroleum Coke Calcining Including, but not limited to, all or part of the following: Bins, Conveyors, Reactors, Mixers, Process Tanks, Kilns	F	Precious Metal, Recovery, Other	B
		Precious Metal, Recovery, Catalyst	D
		Printing Press, Air Dry	B
		Printing Press With IR, EB or UV Curing	B
		Printing Press, Other	C
		Printing Press, Screen	B
		Production, Other	B
		Railroad Car Loading/Unloading, Other	C
		Railroad Car Unloading, liquid direct to trucks	B

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Reaction, Other	C	Semiconductor, Int. Circuit Mfg (5 or more)	C
Recovery, Other	B	Semiconductor, Photo resist (< 5 pieces)	B
Refined Oil/Water Separator Including, but not limited to, all or part of the following: Oil/Water Separators, Pits, Sumps, Tanks, Vessels	B	Semiconductor, Photo resist (5 or more pieces)	C
Refrigerant Recovery/Recycling	A1	Semiconductor, Solvent Cleaning (< 5 pieces)	B
Rendering Equipment, Blood Drying	C	Semiconductor, Solvent Cleaning (5 or more pieces)	C
Rendering Equipment, Fishmeal Drying	C	Sewage Sludge Composting	C
Rendering Equipment, Rendering	D	Sewage Sludge Drying, Conveying, Storage, Load-out Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators, Loading Arms	D
Rendering Equipment, Separation, Liquid	C	Sewage Sludge Digestion	D
Rendering Product, Handling Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	C	Sewage Sludge Dryer	D
Resin, Varnish Mfg. Including, but not limited to, all or part of the following: Coolers, Heat Exchangers, Pumps, Reactors, Mixers, Process Tanks	D	Sewage Sludge Incineration	H
Roller Coater	B	Sewage Treatment, (<= 5 MGD), Aerobic Including, but not limited to, all or part of the following: Air Flootation Units, Flootation Units, Filter Presses, Clarifiers, Settling Tanks, Trickling Filters, Waste Water Separators, Tanks	C
Rubber Mfg. Including, but not limited to, all or part of the following: Coolers, Heat Exchangers, Pumps, Reactors, Mixers, Process Tanks	C	Sewage Treatment, (> 5 MGD) Including, but not limited to, all or part of the following: Air Flootation Units, Flootation Units, Filter Presses, Clarifiers, Settling Tanks, Trickling Filters, Waste Water Separators, Tanks	F
Rubber Presses or Molds with a ram diameter of more than 26 inches Submitted before September 11, 1999 Submitted on or after September 11, 1999	A B	Sewage Treatment, (> 5 MGD), Anaerobic Including, but not limited to, all or part of the following: Air Flootation Units, Flootation Units, Digesters, Filter Presses, Clarifiers, Settling Tanks, Trickling Filters, Waste Water Separators, Tanks	G
Rubber Roll Mill	B	Sheet Machine	B
Sand Handling Equipment, Foundry Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	C	Shell Blasting System	B
Sand Handling Equipment w/Shakeout, Foundry Including, but not limited to, all or part of the following: Conveyors, Bins, Hoppers, Bucket Elevators	D	Shipping Container System	B
Screening, Green Waste	A	Sintering	C
Screening, Other Including, but not limited to, all or part of the following: Screens, Conveyors, Bins, Hoppers, Bucket Elevators	C	Size Reduction, Other Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Dryers, Feeders, Hoppers, Crushers, Cyclones, Mixers, Screens, Weigh Stations	C
Semiconductor, Int. Circuit Mfg (< 5 pieces)	B		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Size Reduction, Petroleum Coke Including, but not limited to, all or part of the following: Bins, Bucket Elevators, Conveyors, Dryers, Feeders, Hoppers, Crushers, Cyclones, Mixers, Screens, Weigh Stations	C	Spray Machine, Adhesive	B
Sludge Dewatering, Other Including, but not limited to, all or part of the following: Filter Press, Process Tanks, Settling Tanks	D	Spray Machine, Coating	B
Sludge Dryer, Other	B	Spray Machine, Powder Coating	B
Sludge Incinerator	H	Spraying, Resin/Gel Coat	C
Smoke Generator	B	Sterilization Equipment	C
Smokehouse	C	Stereolithography	A
Soap/Detergent Mfg Including, but not limited to, all or part of the following: Process Tanks, Mixers, Tanks, Conveyors, Bins, Hoppers, Bucket Elevators	D	Storage, Petroleum Coke	C
Soil Treatment, Other Including, but not limited to, all or part of the following: Bins, Conveyors, Ovens	D	Storage Container, Baker-Type	B
Soil Treatment, Vapor Extraction Including, but not limited to, all or part of the following: Adsorbers, Afterburners	C	Storage Container, Baker-Type w/Control	C
Solder Leveling	B	Storage Silo, Other Dry Material	A
Soldering Machine	B	Storage Tank, w/o Control, Crude Oil/Petroleum Products	B
Solvent Reclaim, Still (Multistage)	C	Storage Tank, Acid with sparger	B
Solvent Reclaim, Still (Single stage)	A	Storage Tank, Ammonia with sparger	B
Solvent Redistillation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Storage Tank, Asphalt <= 50,000 gallons	B
Spent Stretford Solution Regeneration Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D	Storage Tank, Asphalt > 50,000 gallons	C
Spray Equipment, Open	B	Storage Tank, Degassing Unit	D
		Storage Tank, Fixed Roof with Internal Floater	C
		Storage Tank, Fixed Roof with Vapor Control	C
		Storage Tank, Fuel Oil	A
		Storage Tank, Lead Compounds	C
		Storage Tank, LPG	A
		Storage Tank, LPG w/Vaporizing System	C
		Storage Tank, Other	A
		Storage Tank, Other w/ Control Equipment	B
		Storage Tank, with Passive Carbon s.s.	B
		Storage Tank, with Passive Carbon m.s.	C
		Storage Tank, with Passive Carbon t.s.	C
		Storage Tank, Rendered Products	C
		Storage Tank, Waste Oil	A
		Storage Tank with condenser	B
		Storage Tank, with External Floating Roof	C
		Stove-Oil Filter/Coalescer Facility	D
		Striper, Can	B
		Striper, Pavement	B
		Stripping, Other	B

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule	Equipment/Process	Schedule
Sulfonation Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E	Treating, Petroleum Distillates Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	D
Sulfuric Acid Plant Including, but not limited to, all or part of the following: Accumulators, Columns, Condensers, Drums, Heat Exchangers, Knock Out Pots, Pots, Pumps, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	F	Vacuum Distillation Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E
Sump, Covered & Controlled	C	Vacuum Machine	C
Sump, Spill Containment	A	Vacuum Metalizing	B
Tablet Coating Pans	A	Vacuum Pumps	C
Tank, Hard Chrome Plating	C	Vegetable Oil Extractor Including, but not limited to, all or part of the following: Bins, Conveyors, Cookers, Presses, Tanks, Kilns	E
Tank/Line, Other Chrome Plating or Chrome Anodizing	C	Warming Device, Electric	A
Tank, Line, Other Process Emitting Hexavalent Chrome	C	Waste Water Treating (< 10,000 gpd) Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	B
Tank/Line, Trivalent Chrome Plating	B	Waste Water Treating (< 20,000 gpd) no toxics Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	B
Tank/Line, Cadmium or Nickel Plating	C	Waste Water Treating (20,000 - 50,000 gpd) Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	D
Tank/Line, Other Process Emitting Nickel or Cadmium	B1	Waste Water Treating (> 50,000 gpd) Including, but not limited to, all or part of the following: Air Floatation Units, Floatation Units, Filter Presses, Clarifiers, Settling Tanks, Waste Water Separators, Tanks	E
Tank/Line, Other Plating	B		
Tank/Line Nitric Acid Process Emitting NOx	C		
Tank/Line, Other Process Using Aqueous Solutions	B		
Tank, Paint Stripping w/Methylene Chloride	C		
Textiles, Recycled, Processing	C		
Thermal Cracking Unit Including, but not limited to, all or part of the following: Absorbers, Accumulators, Columns, Compressors, Condensers, Drums, Fractionators, Heat Exchangers, Knock Out Pots, Pots, Pumps, Reactors, Regenerators, Scrubbers, Settling Tanks, Sumps, Tanks, Towers, Vessels	E		
Tire Buffer	A		
Treating, Other	B		

TABLE IB - PERMIT FEE RATE SCHEDULES FOR BASIC EQUIPMENT

Equipment/Process	Schedule
Waste-to-Energy Equipment	H
Wet Gate Printing Equipment using Perchloroethylene	B
Weigh Station	A
Wood Treating Equipment Including, but not limited to, all or part of the following: Coater Operations, Process Tanks	C

TABLE IIA
SPECIAL PROCESSING FEES
AIR QUALITY ANALYSIS/HEALTH RISK ASSESSMENT

Schedule	Fee
A	\$1,406.78
B	\$1,406.78
C	\$1,406.78
D	\$5,036.43+T&M
E	\$5,036.43+T&M
F	\$5,036.43+T&M
G	\$5,036.43+T&M
H	\$6,716.44+T&M

D through G: T&M = Time and Material charged at \$144.05 per hour above 35 hours.

H: T&M = Time and Material charged at \$144.05 per hour above 47 hours. Time and material charges for work beyond these hourly limits shall be for analysis or assessment required due to modification of the project or supporting analysis submitted for initial review or for multiple analyses or assessments required for a project or other special circumstances and shall be approved by the Executive Officer.

An additional fee of \$2,411.61 shall be assessed for a project requiring modeling review triggered by the requirements of Regulation XVII – Prevention of Significant Deterioration (PSD). The total combined fee for these reviews shall not exceed \$16,077.38.

TABLE IIB
CEMS, FSMS, & ACEMS FEE SCHEDULE

Certification Review		
CEMS and FSMS Review ¹	Basic Fee ²	Maximum Fee
Any combination of pollutants, diluent, flow, or other parameter ³ for:		
One to two components	\$3,894.50	\$6,972.94
Three to four components	\$4,684.79	\$12,831.72
For each additional component beyond four, the following amount is added to the fee for four components	\$0.00	\$3,169.68
For time-sharing of CEMS, the following amount is added to any fee determined above	\$0.00	\$3,169.68
ACEMS Review	Basic Fee ⁴	Maximum Fee
	\$3,894.50	\$12,831.72
¹ The certification fee includes the initial application approval, approval of test protocol, and approval of the performance test results. An application resubmitted after a denial will be treated as a new application and will be subject to a new fee. ² Covers up to 40 hours evaluation time for the first two components, 60 hours for the first four components, and up to an additional 12 hours for each component beyond four. Excess hours beyond these will be charged at \$172.01 per hour, to the maximum listed in the table. ³ Additional components, as necessary, to meet monitoring requirements (e.g., moisture monitor). ⁴ Covers up to 40 hours evaluation time.		

TABLE III - EMISSION FEES

Annual Emissions (tons/yr)	Organic Gases* (\$/ton)	Specific Organics** (\$/ton)	Nitrogen Oxides (\$/ton)	Sulfur Oxides (\$/ton)	Carbon Monoxide (\$/ton)	Particulate Matter (\$/tons)
4 – 25	\$625.17	\$111.85	\$365.75	\$433.63	-	\$478.05
>25 – 75	\$1,015.03	\$177.23	\$580.97	\$700.97	-	\$774.62
>75 and <100	\$1,519.37	\$265.82	\$874.97	\$1,052.41	-	\$1,159.81
≥100	\$1,519.37	\$265.82	\$874.97	\$1,052.41	\$7.49	\$1,159.81

* Excluding methane, exempt compounds as specified in paragraph (e)(13), and specific organic gases as specified in paragraph defined in subdivision (b) of this rule.

** See specific organic gases as defined in subdivision (b) of this rule.

TABLE IV
TOXIC AIR CONTAMINANTS AND OZONE DEPLETERS

TOXIC COMPOUNDS	Fee \$/1 lb	Annual Emission Thresholds (lbs)
Ammonia (Reporting Period 07/01/04 and beyond)	\$0.03	200
Asbestos	\$6.52	0.0001
Benzene	\$2.20	2.0
Cadmium	\$6.52	0.01
Carbon tetrachloride	\$2.20	1.0
Chlorinated dioxins and dibenzofurans (26 species)	\$10.90	0.000001
Ethylene dibromide	\$2.20	0.5
Ethylene dichloride	\$2.20	2.0
Ethylene oxide	\$2.20	0.5
Formaldehyde	\$0.49	5.0
Hexavalent chromium	\$8.71	0.0001
Methylene chloride	\$0.08	50.0
Nickel	\$4.34	0.1
Perchloroethylene	\$0.49	5.0
1,3-Butadiene	\$6.52	0.1
Inorganic arsenic	\$6.52	0.01
Beryllium	\$6.52	0.001
Polynuclear aromatic hydrocarbons (PAHs)	\$6.52	0.2
Vinyl chloride	\$2.20	0.5
Lead	\$2.20	0.5
1,4-Dioxane	\$0.49	5.0
Trichloroethylene	\$0.17	20.0
Chlorofluorocarbons (CFCs)	\$0.42	1
1,1,1-trichloroethane	\$0.05	1

TABLE V
ANNUAL CLEAN FUELS FEES

Volatile Organic Compounds (\$/ton)	Nitrogen Oxides (\$/ton)	Sulfur Oxides (\$/ton)	Particulate Matter (\$/ton)
\$48.71	\$27.31	\$33.85	\$27.31

TABLE VI
DEMOLITION, ASBESTOS AND LEAD NOTIFICATION FEES

Demolition and Renovation by Project Size (square feet) ¹					
up to 1,000	> 1,000 to 5,000	5,000 to 10,000	> 10,000 to 50,000	> 50,000 to 100,000	> 100,000
\$62.92	\$192.40	\$450.38	\$706.21	\$1,023.47	\$1,705.79

Additional Service Charge Fees				
Revision to Notification	Special Handling Fee ²	Planned Renovation	Procedure 4 or 5 Plan Evaluation	Expedited Procedure 4 or 5 Fee ³
\$62.92	\$62.92	\$706.21	\$706.21	\$353.10

¹ For demolition, the fee is based on the building size.
For refinery or chemical unit demolition, the fee is based on the structure's footprint surface area.

For renovation, the fee is based on the amount of asbestos/lead removed.

² For all notifications postmarked less than 14 calendar days prior to project start date.

³ For all expedited Procedure 4 or 5 plan evaluation requests postmarked less than 14 calendar days prior to project start date.

For each subsequent notification for pre-approved Procedure 5 plan submitted per Rule 1403(d)(1)(D)(i)(V)(2).

TABLE VII
FACILITY PERMIT FEES FOR FACILITIES THAT ARE RECLAIM ONLY, TITLE
V ONLY, AND BOTH RECLAIM & TITLE V

Description	Rule section	FY 2018-19	FY 2019-20 and thereafter
Facility Permit Amendment/Revision Fee <ul style="list-style-type: none"> • RECLAIM Only • Title V Only* • RECLAIM & Title V* * Includes administrative, minor, de minimis significant, or significant amendment/revision	(l)(4) (m)(4)	\$1,170.63 \$1,325.61 \$2,496.24	\$1,170.63 \$1,466.92 \$2,637.55
Facility Permit Change of Operator <ul style="list-style-type: none"> • Facility Permit Amendment Fee Plus <ul style="list-style-type: none"> • Application Processing Fee for Each Application 	(c)(2) (l)(6) (m)(4) (n)(5)	<i>Facility Permit Amendment/Revision Fee (See Above)</i> Plus <i>Processing Fees (See Table FEE RATE-C))</i>	
Title V Facility Permit Renewal Fee (Due at Filing) Plus Hourly Rate for Calculation of Final Fee for Evaluation Time in Excess of 8 hours (Due upon Notification)	(m)(5) (m)(9)	\$3,010.95 Plus \$210.67 per hour	\$3,331.91 Plus \$233.13 per hour

ATTACHMENT F4

(Adopted September 2, 1977)(Amended May 5, 1978)(Amended March 5, 1982)
(Amended August 5, 1983)(Amended October 5, 1984)(Amended January 6, 1989)
(Amended June 1, 1990)(Amended June 6, 1992)(Amended June 11, 1993)
(Amended June 10, 1994)(Amended May 12, 1995)(Amended May 10, 1996)
(Amended May 9, 1997)(Amended May 8, 1998)(Amended May 14, 1999)
(Amended May 19, 2000)(Amended May 11, 2001)(Amended May 3, 2002)
(Amended June 6, 2003)(Amended July 9, 2004)(Amended June 3, 2005)
(Amended June 9, 2006)(Amended May 4, 2007)(Amended May 2, 2008)
(Amended June 5, 2009)(Amended May 7, 2010)(Updated July 1, 2011)
(Updated July 1, 2012)(Updated July 1, 2013)(Amended June 6, 2014)
(Amended May 1, 2015)(Updated July 1, 2016)(Amended June 2, 2017)
(Updated May 4, 2018)
(PAR 303 – February 12, 2019)
Effective July 1, 2018

PROPOSED AMENDED RULE 303. HEARING BOARD FEES

- (a) Filing and Appearance Fees
 - (1) Every applicant or petitioner in a proceeding before the Hearing Board shall pay to the Clerk of the Board, at the time of filing, a filing fee for each petition in accordance with the schedule set forth in Table III.
 - (2) If the hearing runs more than one day, supplemental appearance fees shall be assessed pursuant to Table III for each additional day of the hearing, unless otherwise ordered by the Hearing Board.
- (b) Filing Fee Refunds
 - (1) In the event the Hearing Board reverses in total an appealed decision of the Executive Officer, the filing fee specified in subdivision (a) shall be refunded to the petitioner.
 - (2) In the event that the petition is withdrawn, and the petitioner notifies the Clerk of the Board in writing not less than four (4) days prior to the scheduled appearance, or the hearing is not held for any other reason, the petitioner shall be entitled to a refund of fifty percent (50%) of the filing fees.

(c) Publication Fees

Every petitioner for relief which requires published notice shall pay to the Clerk of the Board a fee to cover the actual cost of publication of notice(s) of hearing. The fee shall be due and payable within fifteen (15) days of the notification in writing of the amount due.

(d) Excess Emission Fee

(1) Each applicant or petitioner for a variance from these Rules and Regulations shall pay to the Clerk of the Board, in addition to the filing fees required in subdivision (a) an emission fee in accordance with the schedule set forth in Table I, based on the total emissions discharged during the variance period in excess of that allowed by these rules or permit conditions, other than those described in subdivision (e) below. If the amount of the excess emission fee is less than that specified in subdivision (f), the applicant or petitioner shall pay the higher amount, unless otherwise ordered by the Hearing Board.

(2) In cases where the Hearing Board determines that calculations or estimations of excess emissions cannot be made, the petitioner shall pay the amount set forth in subdivision (f), unless otherwise ordered by the Hearing Board.

(3) In the event that more than one rule and/or permit condition limiting the discharge of the same contaminant is violated, the excess emission fee shall be based on the excess emissions resulting from the violation of the most stringent rule or permit condition. For the purposes of this subdivision, opacity rules and particulate mass emissions shall not be considered rules limiting the discharge of the same contaminant.

(e) Excess Visible Emission Fee

Each applicant or petitioner for a variance from Rule 401 and/or Health and Safety Code Section 41701 shall pay to the Clerk of the Board, in addition to the filing fees required in subdivision (a) above, and the excess emission fees required in (d) above (if any), an emission fee based on the difference between the percent opacity allowed by Rule 401 and/or Health and Safety Code Section 41701 and the percent opacity of the emissions allowed under the variance. Such fees shall be calculated in accordance with the schedule set forth in Table II.

(f) Minimum Excess Emission Fees

The excess emission fee remitted, regardless of calculations, shall be no less than \$192.36 for each day on which the excess emissions occur or are expected to occur at each facility during the variance period, unless otherwise ordered by the Hearing Board.

(g) Adjustment of Excess Emission Fees

The Hearing Board may adjust the excess emission fee required by subdivisions (d), (e), and (f) of this rule, at the request of the petitioner or upon motion of the Hearing Board, based on evidence regarding emissions presented at the time of the hearing.

(h) Eligibility as a Small Business and Eligibility for Table III Schedule A Fees

(1) Petitioners that are individuals or that meet the definition of Small Business as set forth in Rule 102 - Small Business or that meet the gross annual receipts criterion for small businesses shall be assessed twenty percent (20%) of the fees required by subdivisions (d), (e), or (f), whichever is applicable.

(2) A request for eligibility as a small business, individual, or entity that meets the total annual gross receipts criterion for small businesses in Rule 102 shall be made by the petitioner under penalty of perjury on a declaration form provided by the Executive Officer, which shall be submitted to the Clerk of the Board at the time of filing of a petition for a variance.

(i) Group Variance Fees

(1) Petitioners filing as a group for a variance shall jointly pay the total filing fee specified in Table III. Each petitioner shall individually pay excess emission fees for their facility or product(s), as specified in subdivisions (d), and (e), or (f) whichever is applicable.

(2) The Publication Fee required by subdivision (c) shall be totaled and divided equally among the petitioners.

(j) Adjustment of Fees

If, after the term of a variance for which emission fees have been paid, petitioner can establish, to the satisfaction of the Executive Officer, that (1) emissions were less than those upon which the fee was based, or (2) excess emission fee calculations are otherwise incorrect, a pro rata refund shall be made. If the amount

of the excess emissions fee is less than that specified in subdivision (f), the applicant or petitioner shall pay the higher amount, unless otherwise ordered by the Hearing Board.

(k) Fee Payment/Variance Revocation

(1) Excess emission fees required by subdivisions (d), (e), and (f) shall be due and payable to the Clerk of the Board within fifteen (15) days of notification in writing that the fees are due, unless otherwise ordered by the Hearing Board.

(2) Failure to pay any assessed fees within fifteen (15) days of written notification that fees are due may be cause for the Hearing Board to issue further orders as may be appropriate, including but not limited to revocation of a variance. Such notification may be given by personal service ~~or by~~ deposit, postpaid, in the United States or sent by mail, electronic mail, or other electronic means, and shall be due fifteen (15) days from the date of personal service, ~~or mailing, or electronic transmission~~. For the purpose of this rule, the fee payment shall be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the fee billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date.

(l) Request for Time Extension of Payment Due

Whenever this rule requires fees to be paid by a certain date, the petitioner may, for good cause, request the Executive Officer to grant an extension of time, not to exceed ninety (90) days, within which the fees shall be paid. Any request for extension of time shall be presented in writing, and accompanied by a statement of reasons demonstrating good cause as to why the extension should be granted.

(m) Discretionary Powers

Any person may allege that payment of any of the fees within this rule, excluding publication fees, will cause an unreasonable hardship or is otherwise inequitable. Such petitioner may be excused from payment of such fees or a portion thereof by order of the Hearing Board if the Board, in its discretion, determines after hearing evidence thereon that payment of such fees would cause financial or other

unreasonable hardship to the petitioner or is otherwise inequitable. The Hearing Board, on its own motion, may also waive all or any portion of any fee(s) except the Publication Fee.

(n) Transcript Fees

Any person requesting a transcript of the hearing shall pay the cost of such transcript. The parties to hearings and pre-hearing proceedings may be directed by the Hearing Board to pay the cost of transcripts necessary for the Hearing Board's determination of the matter, in such proportion as the Hearing Board may order.

(o) Government Agencies

- (1) This rule shall not apply to petitions filed by the Executive Officer.
- (2) Federal, state or local government agencies or public districts shall pay all fees.

(p) Waiver of Fees

All fees associated with this rule shall be waived for any petition for a variance filed as the direct and proximate result of any event declared to be a "state of emergency" by local, state, or federal authorities.

(q) Service Charge for Returned Check

Any person who submits a check to the District that is returned due to insufficient funds, or for which that person issues instructions to stop payment on the check, absent an overcharge or other legal entitlement to withhold payment, shall be subject to a \$25.00 service charge.

(r) Effective Date of Fee Schedules

Appearance and excess emission fees shall be those in effect at the time of the hearing dates.

TABLE I
SCHEDULE OF EXCESS EMISSIONS FEES

<u>Air Contaminants</u>	<u>Dollars Per Ton</u>
Organic gases, except methane and those containing sulfur	\$6,073.43
Carbon Monoxide	\$59.46
Oxides of nitrogen (expressed as nitrogen dioxide)	\$3,643.58
Gaseous sulfur compounds (expressed as sulfur dioxide)	\$4,248.96
Particulate matter	\$4,248.96
Ammonia	\$0.11
Asbestos	\$26.80
Benzene	\$8.94
Cadmium	\$26.80
Carbon tetrachloride	\$8.94
Chlorinated dioxins and dibenzofurans (26 species)	\$44.62
Ethylene dibromide	\$8.94
Ethylene dichloride	\$8.94
Ethylene oxide	\$8.94
Formaldehyde	\$1.87
Hexavalent chromium	\$35.67
Methylene chloride	\$0.42
Nickel	\$17.73
Perchloroethylene	\$1.87
1,3-Butadiene	\$26.80
Inorganic arsenic	\$26.80
Beryllium	\$26.80
Polynuclear aromatic hydrocarbons (PAHs)	\$26.80
Vinyl chloride	\$8.94
Lead	\$8.94
1,4-Dioxane	\$1.87
Trichloroethylene	\$0.77

TABLE II
SCHEDULE OF EXCESS VISIBLE EMISSION FEE

For each source with opacity emissions in excess of twenty percent (20%), the fee is calculated as follows:

$$\text{Fee} = (\text{Opacity* equivalent} - 20) \times \text{number of days on which the violation is expected to occur} \times \$10.05$$

For each source with opacity emissions in excess of forty percent (40%) (where the source is exempt from Rule 401 and in violation of California Health and Safety Code Section 41701), the fee is calculated as follows:

$$\text{Fee} = (\text{Opacity* equivalent} - 40) \times \text{number of days on which the violation is expected to occur} \times \$10.05$$

* Where "Opacity" equals maximum opacity of emissions in percent (not decimal equivalent) allowed by the variance. Where the emissions are darker than the degree of darkness equivalent to the allowed Ringelmann number, the percentage equivalent of the excess degree of darkness shall be used as "opacity."

TABLE III - FILING FEE SCHEDULE

Filing and supplemental fees shall be paid by the petitioner as follows:

Schedule A shall apply to -

- (1) small businesses as defined by Rule 102,
- (2) individual persons, and
- (3) entities that meet the total annual gross receipts criterion for small businesses in Rule 102.

Schedule B - shall apply to - all others.

	Schedule B	Schedule A
VARIANCE (Interim, Short, Regular, Emergency) and Alternate Operating Condition(s)		
<input type="checkbox"/> Interim and Short or Interim and Regular	\$1,574.33	\$282.34
<input type="checkbox"/> Short (without interim)	\$1,259.47	\$282.34
<input type="checkbox"/> Regular (without interim)	\$1,259.47	\$282.34
<input type="checkbox"/> Emergency or Ex Parte Emergency	\$1,259.47	\$282.34
<input type="checkbox"/> Variance plus Alternate Operating Condition(s)	\$1,889.19	\$282.34
<input type="checkbox"/> Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$705.19	\$140.91

PRODUCT VARIANCE		
Filing Fee	\$1,889.19	\$282.34
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$705.19	\$140.91

GROUP VARIANCE		
Two	\$1,416.91	
Three	\$2,204.06	
Four or More	\$3,148.69	
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$1,057.84	

	Schedule B	Schedule A
MODIFICATION OF EXISTING ORDERS INCLUDING FINAL COMPLIANCE DATE		
<input type="checkbox"/> Modification of a Final Compliance Date and Extension of a Variance	\$1,259.47	\$282.34
<input type="checkbox"/> Modification of Order for Abatement (requested by respondent)	\$1,259.47	\$282.34
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional of	\$705.19	\$140.91

MODIFICATION OF EXISTING ORDERS EXCLUDING FINAL COMPLIANCE DATE		
<input type="checkbox"/> Modification of Variance (Increments of Progress and Conditions)	\$940.67	\$282.34
<input type="checkbox"/> Interim Authorization (Increments of Progress)	\$940.67	\$282.34
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$303.80	

ADMINISTRATIVE TYPE OF HEARINGS		
<input type="checkbox"/> Administrative Hearings (issuance of subpoenas, waiver of fees, etc.)	\$940.67	\$282.34
Plus, for each hearing day in in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$314.88	\$140.91

APPEAL		
Filing fee	\$1,889.19	\$282.34
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$1,057.84	\$207.00

CONSENT CALENDAR		
Filing Fee	\$435.27	\$140.91
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$275.52	\$140.91
<input type="checkbox"/> In the event that the Board determines that there was insufficient documentation to consider the matter on the Consent Calendar, and the matter is scheduled for a hearing before the Board, petitioner shall pay an additional sum of	\$787.17	\$282.34
Plus, for each hearing day in addition to the first hearing day necessary to dispose of the petition, the additional sum of	\$705.19	\$140.91

ATTACHMENT F5

(Adopted January 4, 1985)(Amended June 5, 1987)(Amended June 3, 1988)
(Amended January 6, 1989)(Amended November 3, 1989)(Amended July 6, 1990)
(Amended June 11, 1993)(Amended June 10, 1994)(Amended May 12, 1995)
(Amended May 10, 1996)(Amended May 9, 1997)(Amended May 8, 1998)
(Amended May 14, 1999)(Amended May 19, 2000)(Amended May 11, 2001)
(Amended May 3, 2002)(Amended June 6, 2003)(Amended July 9, 2004)
(Amended June 3, 2005)(Amended June 9, 2006)(Amended May 4, 2007)
(Amended May 2, 2008)(Amended June 5, 2009)(Amended May 7, 2010)
(Updated July 1, 2011)(Updated July 1, 2012)(Updated July 1, 2013)
(Amended June 6, 2014)(Amended May 1, 2015)(Amended May 6, 2016)
(Updated July 1, 2016)(Amended June 2, 2017)(Amended May 4, 2018)
(PAR 306 – February 12, 2019)

Effective July 1, 2018

PROPOSED AMENDED RULE 306. PLAN FEES

(a) Summary

California Health and Safety Code Section 40522 provides authority for the South Coast Air Quality Management District to adopt a fee schedule for the approval of plans to cover the costs of review, planning, inspection, and monitoring related to activities conducted pursuant to the plans. An annual fee may also be charged to cover the costs of annual review, inspection, and monitoring related thereto. This rule establishes such a fee schedule, and requires that fees be paid for:

- (1) Filing of plans;
- (2) Evaluation of the above plans;
- (3) Inspections to verify compliance with the plans;
- (4) Duplicate plans;
- (5) Change of condition; and
- (6) Annual review/renewal of plans, if applicable.

(b) Definitions

For the purpose of this rule, a plan is any data and/or test report (including equipment certification source tests) required by federal or state law, or District Rules and Regulations to be submitted to the District. A plan may be a description of a method to control or measure emissions of air contaminants required by the Rules and Regulations. Plans include, but are not limited to, the following: Demonstration Plan; Application Test Plan; Implementation Plan; Compliance

Plan; Management Plan; Control Plan; CEQA Mitigation Monitoring Plan; Acid Rain Repowering Extension Plan and Compliance Plan; Acid Rain Continuous Emission Monitoring System Plan; Acid Rain Protocol/Report Evaluation; VOC Excavation Mitigation Plans (Site Specific and Various Locations); Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems Plan; Title V Exclusion Requests; Smoke Management Plans; Burn Management Plans; Emergency Burn Plans; Post Burn Evaluation Reports; Rule 109 Alternative Recordkeeping System Plan; Solid Waste Air Quality Assessment Test Reports (Health and Safety Code Section 41805.5); Compliance Assurance Monitoring Plan (40 CFR 64); Maximum Achievable Control Technology MACT Exemption Requests; Equipment Certification Source Test Reports; and MACT Case-by-Case Analysis.

(c) Plan Filing Fee

The filing fee for a plan or change of condition shall be as follows:

Facility Type	Non-Title V	Title V
FY 2018-19	\$155.80	\$176.42
FY 2019-20 and thereafter	\$155.80	\$195.23

(d) Plan Evaluation Fee

The plan evaluation fee shall be an amount equal to the total actual and reasonable time incurred by District staff for evaluation of a plan, assessed at the hourly rate or prorated portion thereof as follows:

Facility Type	Non-Title V	Title V
FY 2018-19	\$155.80	\$176.42
FY 2019-20 and thereafter	\$155.80	\$195.23

(e) Duplicate Plan Fee

A request for a duplicate plan shall be made in writing by the applicant. The applicant shall pay the fee as shown in the table below in this subdivision for each plan requested:

Facility Type	Non-Title V	Title V
FY 2018-19	\$25.29	\$28.63
FY 2019-20 and thereafter	\$25.29	\$31.68

(f) **Inspection Fee**

The inspection fee for plan verification shall be an amount equal to the total actual and reasonable time incurred by the District for inspection and verification of the plan, assessed at the hourly rate per inspection staff or prorated portion thereof as shown in the table below in this subdivision. For inspections conducted outside of regular District working hours, the fee shall be assessed at the rate of 150% of the above hourly rate. This subdivision shall not apply to plans subject to Rule 306(h).

Facility Type	Non-Title V	Title V
FY 2018-19	\$124.58	\$141.07
FY 2019-20 and thereafter	\$124.58	\$156.10

(g) **Change of Condition Fee**

Any request for a change of condition on a VOC Excavation Mitigation Plan shall be made in writing by the applicant. A request submitted after thirty (30) days of the issuance of the plan shall be subject to additional fees assessed at the hourly rate shown in the table below in this subdivision for time spent evaluating the plan. Such fees shall be imposed at the time the review is completed.

Facility Type	Non-Title V	Title V
FY 2018-19	\$155.80	\$176.42
FY 2019-20 and thereafter	\$155.80	\$195.23

(h) **Annual Review/Renewal Fee**

An annual review/renewal fee shall be charged for plans listed in the following table in this subdivision. The annual review/renewal fee shall be an amount equal to the Rule 301(d)(2) Schedule A fee. In addition, annual reviews/renewals shall

meet all relevant and applicable requirements of Rule 301(d) and 301(g), and be paid on an annual renewal date set by the Executive Officer.

Annual Review/Renewal Plan Fee by Rule Number

Rule/Reference	Plan Type
410	Odor Monitoring
431.1	Sulfur Content of Gaseous Fuels
462	Organic Liquid Loading Continuous Monitoring System (CMS) Plan
463(e)(1)(A)	Organic Liquid Storage – Self-Inspection of Floating Roof Tanks
1105.1	Reduction of PM10 and Ammonia Emissions from Fluid Catalytic Cracking Units
1118	<ul style="list-style-type: none">• Control of Emissions from Refinery Flares – Flare Minimization Plan• Control of Emissions from Refinery Flares – Flare Monitoring and Recording Plan
1123	Refinery Process Turnarounds
1132	Further Control of VOC Emissions from High-Emitting Spray Booth Facilities
1150	Excavation Management
1150.1.	Active Landfill Control of Gaseous Emissions
1158	Storage, Handling, and Transport of Coke, Coal and Sulfur – Open Pile Control Plan
1166	<ul style="list-style-type: none">• Volatile Organic Compound Emissions from Decontamination of Soil – Fixed Site• Volatile Organic Compound Emissions from Decontamination of Soil – Various locations
1173	Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (h)(2)
1176	VOC Emissions Waste Water System
1407	Non Ferrous Metal Melting
1420	Emissions of Lead

Rule/Reference	Plan Type
1420.1	<ul style="list-style-type: none"> • Rule – Compliance Plan • Continuous Furnace Pressure Monitoring Plan • Compliance Plan for Closure Activities
1469	Chrome Plating Operations
1469.1	Spray Coating Chromium
1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
40 CFR 64.7	Compliance Assurance Monitoring Plan

(i) Payment of Fees**(1) Plan Filing and Plan Evaluation Fees**

In addition to payment of the filing fee pursuant to subdivision (c), the initial payment for plan evaluation fees shall be as shown in the table below in this subparagraph and paid at the time of filing. The adjustment to plan evaluation fees will be determined at the time a plan is approved or rejected and may include additional fees based upon actual review and work time billed at a rate pursuant to subdivision (d). Notification of the amount due or refund will be provided to the applicant, and any additional fees due to the adjustment to plan evaluation fees will be billed following project completion.

A – Rule 403 and 461 Plans and Rule 1166 Various Location Plans	Non-Title V	Title V
FY 2018-19	\$155.80	\$176.42
FY 2019-20 and thereafter	\$155.80	\$195.23
B – Rule 444, 1133 and 1415 Plans	See Rule 306 (c)	See Rule 306 (c)
C – All Other Plans, including Rule 1166 Fixed Site Plans	Non-Title V	Title V
FY 2018-19	\$545.27	\$617.45
FY 2019-20 and thereafter	\$545.27	\$683.28

(2) Independent Consultant Fees

In the case that the Executive Officer requires a qualified independent consultant, engaged by the District under a contract, to review the plan, the fees charged by the consultant will be in addition to all other fees required.

(3) Payment Due Date

Payment of all applicable fees, including annual review/renewal fee, shall be due in sixty (60) days from the date of personal service or sending by mail, electronic mail, or other electronic means, ~~or mailing~~ of the notification of the amount due. Non-payment of the fee within this time period will result in expiration of the plan. For the purpose of this paragraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date. No further plan applications will be accepted until such time as all overdue fees have been fully paid.

(4) Fee Due Date Exception

Whenever the Executive Officer has reasonable cause to believe that the plan evaluation fee will be less than the fee for one hour's work, the fee need not be paid at the time of filing and notification of amount due, if any, shall be sent at the time the plan is approved or rejected.

(5) Optional Expedited Plan Evaluation Processing Fee

Initial fees for requested expedited processing of plan evaluation shall be an additional fifty percent (50%) of the applicable plan filing and initial evaluation fees pursuant to paragraph (i)(1), and shall be submitted at the time that the expedited processing is requested. The adjustment to expedited plan evaluation processing fee will be determined at the time a plan is approved or rejected and may include additional fees based upon actual review and work time billed at a rate for staff overtime which is equal to one-half of staff's hourly rate as specified in subdivision (d). Notification

of the amount due or refund will be provided to the applicant and any additional fees due to the adjustment to expedited plan evaluation processing fees will be billed following project completion. A request for expedited plan evaluation work can only be made upon initial work submittal, and approval of such a request is contingent upon the ability of the District to implement the necessary policies and procedures and the availability of qualified staff for overtime work.

(j) **Small Business Discount**

For small businesses filing plans, the fees assessed shall be fifty percent (50%) of the amounts specified in subdivisions (c), (d), (f), and (g).

(k) **Alternative Recordkeeping System Plan Discount**

For alternative recordkeeping system plan filed pursuant to Rule 109, the fee assessed shall be fifty percent (50%) of the amount specified in subdivisions (d), (f), and (g).

(l) **Plan Application Cancellation Fee**

The plan application cancellation fee shall be as shown in the table below in this subdivision. The cancellation fee shall not apply when the application was filed based on an erroneous District request.

Facility Type	Non-Title V	Title V
FY 2018-19	\$207.68	\$235.16
FY 2019-20 and thereafter	\$207.68	\$260.23

(m) **Protocol/Report/Catalyst Equivalency Evaluation Fees**

- (1) A minimum fee of \$409.45 shall be charged for the evaluation of source test protocols and reports. Additional fees for time spent on the evaluation in excess of 5 hours shall be assessed at the hourly rate specified in subdivision (d) for non-Title V facilities. The established minimum fee and additional fees for time spent on the evaluation in excess of 5 hours shall be billed after project completion. Fees are due at the time specified in the bill, which will allow a reasonable time for payment.

- (2) The fee for catalyst equivalency evaluation requests shall be the actual and reasonable evaluation hours assessed at the hourly rate specified in subdivision (d), and billed after project completion. Fees are due at the time specified in the bill, which will allow a reasonable time for payment.
- (n) Exemptions
Mobile Source Emission Reduction Credit (MSERC) Applications, Compliance Plans required under Regulation XVI and Rule 2449 – Control of Oxides of Nitrogen from Off-Road Diesel Vehicles and Technical Infeasibility Certification Requests as cited in District Fleet Rules under Regulation XI shall be exempt from the provisions of this rule. Fees for Regulation XVI MSERC Applications and Compliance Plans shall be assessed in accordance with District Rule 309.
- (o) Government Agencies
Federal, state, or local government agencies or public districts shall pay all fees.
- (p) Air Quality Investment Program (AQIP)
Effective July 1, 1996, all Air Quality Investment Program (AQIP) fees shall be subject to Rule 311 and all other Rule 2202 registration fees shall be subject to Rule 308.
- (q) Optional Expedited Protocol/Report/Catalyst Equivalency Evaluation Processing Fee
 - (1) Fees for requested expedited processing of Protocol/Report Evaluations, will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to one-half of staff's hourly rate as specified in subdivision (d) for non-Title V facilities. The established "minimum fee" and additional fees for time spent on the evaluation in excess of 5 hours found in Rule 306(m)(1) shall be paid with the additional overtime fee billed following project completion. Fees are due at the time specified in the bill which will allow a reasonable time for payment. Request for expedited Protocol/Report Evaluation work can only be made upon initial work submittal, and approval of such a request is contingent upon the ability of the District to implement the necessary policies and procedures and the availability of qualified staff for overtime work.

- (2) Fees for requested expedited processing of Catalyst Equivalency Evaluations, will be an additional fee based upon actual review and work time billed at a rate for staff overtime which is equal to one-half of staff's hourly rate as specified in subdivision (d). The established fee described in Rule 306(m)(2) shall be paid with the additional overtime fee and will be billed following project completion. Fees are due at the time specified in the bill, which will allow a reasonable time for payment.
- (r) Regulation XXVII Fees
 - (1) Fees for Rule 2701 – SoCal Climate Solutions Exchange
 - (A) Entities submitting a plan will be assessed a filing fee of \$135.77.
 - (B) The fee for review and verification of Certified Greenhouse Gas Emission Reductions by SCAQMD staff shall be assessed at \$140.52 per hour or a prorated portion thereof.
 - (2) Fees for Rule 2702 – Greenhouse Gas Reduction Program
 - (A) Upon submitting a completed Greenhouse Gas Reduction Program Request to the Executive Officer for certified emission reductions an entity shall pay a fee of \$135.77.
 - (B) Individuals or households wishing to participate are exempt from the plan fees for reductions used to offset personal, household or event GHG emissions.

ATTACHMENT F6

(Adopted May 10, 1996)(Amended May 14, 1999)(Amended May 19, 2000)
(Amended May 11, 2001)(Amended May 3, 2002) (Amended June 6, 2003)
(Amended July 9, 2004)(Amended June 3, 2005)(Amended June 9, 2006)
(Amended May 4, 2007)(Amended May 2, 2008)(Amended June 5, 2009)
(Amended May 7, 2010)(Updated July 1, 2011)(Updated July 1, 2012)
(Updated July 1, 2013)(Amended June 6, 2014)(Amended May 1, 2015)
(Updated July 1, 2016)(Amended October 7, 2016)(Amended June 2, 2017)
(Amended May 4, 2018)
(PAR 307.1 – February 12, 2019)

Effective July 1, 2018

PROPOSED AMENDED RULE 307.1 ALTERNATIVE FEES FOR AIR TOXICS EMISSIONS INVENTORY

(a) Purpose

California Health and Safety Code Section 44300 et seq. provides authority for the District to adopt a fee schedule to recover the cost of implementing and administering the Air Toxics “Hot Spots” Information and Assessment Act of 1987. The District will annually collect from the owner/operator of each facility meeting the criteria set forth in paragraph (b)(1), (b)(2), and (b)(3), and each owner/operator shall pay, fees which shall provide for the following:

- (1) Recovery of anticipated costs to be incurred by the California Air Resources Board (CARB) and Office of Environmental Health Hazard Assessment (OEHHA) to implement and administer the Act, and any costs incurred by OEHHA or its independent contractor for review of facility risk assessments submitted to the State after March 31, 1995 under Health and Safety Code Section 44361(c).
- (2) Recovery of anticipated costs to be incurred by the District to implement and administer the Act, including but not limited to the cost incurred to review emission inventory plans, emission inventory data, air toxics inventory reports, risk assessments, to verify plans and data, and to administer this rule, Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, and the Air Toxics “Hot Spots” program.

(b) Applicability

Except for facilities exempted by Health and Safety Code Sections 44324, 44344.4(a), or 44380.1, this rule applies to any facility that operates in any portion of the fiscal year for which the fee is assessed and which:

- (1) Manufactures, formulates, uses, or releases any of the substances listed by the State Board pursuant to Health and Safety Code Section 44321 and contained in Appendix A of the Guidelines Report, or any other substance which reacts to form a substance so listed, and releases ten (10) tons per year or greater of any criteria pollutant;
- (2) Manufactures, formulates, uses or releases any listed substance or any other substance which reacts to form any listed substance, and which releases less than ten (10) tons per year of any criteria pollutant and falls in any class listed in Appendix E of the Guidelines Report;
- (3) Is reinstated under Health and Safety Code Section 44344.7; or
- (4) Is subject to Rule 1402.

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) **COMPLEX FACILITY** means a facility that has more than five (5) processes as determined by six-digit Source Classification Codes (SCC).
- (2) **CRITERIA POLLUTANT** means total organic gases, particulate matter, nitrogen oxides, or sulfur oxides.
- (3) **DIESEL ENGINE** means an internal combustion engine with operating characteristics similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a diesel (or compression ignition) engine.
- (4) **DIESEL ENGINE FACILITY** means any facility which has a diesel engine and is not subject to any other Rule 307.1 fees.
- (5) **DIESEL-FUELED** as defined in Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines (Rule 1470).
- (6) **Diesel Particulate Matter (PM)** as Defined In Rule 1470.
- (7) **DISTRICT** means South Coast Air Quality Management District.
- (8) **DISTRICT TRACKING FACILITY** means a facility:
 - (A) That has been prioritized by the District in accordance with Health and Safety Code Section 44360(a) using procedures that have

- undergone public review and that are consistent with the procedures presented in the most current version of the SCAQMD “Facility Prioritization Procedures For AB 2588 Program”, which is incorporated by reference herein;
- (B) That is required by the District to submit a quadrennial emissions inventory update pursuant to Health and Safety Code Section 44344 during the applicable fiscal year; and
 - (C) Whose prioritization scores for cancer and non-cancer health effects are both greater than 1.0 and equal to or less than 10.0.
- (9) FACILITY has the same meaning as defined in Section 44304 of the Health and Safety Code.
 - (10) FACILITY PROGRAM CATEGORY means a grouping of facilities, meeting the definitions in paragraphs (c)(1), (c)(4), (c)(8), (c)(12), (c)(13), (c)(17), (c)(20), (c)(21), (c)(22), (c)(24), (c)(29), (c)(32), or (c)(33) of this rule.
 - (11) GUIDELINES REPORT (Air Toxics Hot Spots Emission Inventory Criteria and Guidelines Report) is the report incorporated by reference under Section 93300.5 of this title that contains regulatory requirements for the Air Toxics Hot Spots Emission Inventory Program.
 - (12) HRA TRACKING FACILITY means a facility that has been prioritized by the District in accordance with Health and Safety Code Section 44360(a) using procedures that have undergone public review and that are consistent with the procedures presented in the most current version of the SCAQMD “Facility Prioritization Procedures For AB 2588 Program”, which is incorporated by reference herein, and the greater of the facility’s prioritization scores for cancer and non-cancer health effects is greater than 10.0, and meets either one of the following criteria:
 - (A) The facility has had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362 and the risk assessment results show a total potential cancer risk, summed across all pathways of exposure and all compounds, of equal to or greater than 1.0 and less than ten (10) cases per million persons and a total hazard index for each toxicological endpoint, both acute and chronic, of less than or equal to 1.0; or
 - (B) The facility has had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362

and the risk assessment results show a total hazard index for each toxicological endpoint, either acute or chronic, of greater than or equal to 0.1, but less than or equal to 1.0, and a total potential cancer risk, summed across all pathways of exposure and all compounds, of less than ten (10) cases per million persons.

- (13) MEDIUM FACILITY means a facility that has three (3) to five (5) processes as determined by six-digit SCCs.
- (14) NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE is the standard used to classify business establishments developed under the auspices of the United States Office of Management and Budget, which is herein incorporated by reference.
- (15) OEHHA means the Office of Environmental Health Hazard Assessment, California Environmental Protection Agency.
- (16) OPERATOR means the person who owns or operates a facility or part of a facility.
- (17) POTENTIALLY HIGH RISK LEVEL FACILITY means a facility designated by the Executive Officer pursuant to the definition in Rule 1402.
- (18) POTENTIALLY HIGH RISK LEVEL FACILITY FEE means the fee charged to facilities upon designation as a Potentially High Risk Level Facility under Rule 1402. The fee will be assessed on a Time and Materials (T&M) basis to cover the District's costs in determining Rule 1402 compliance. This includes, but is not limited to, evaluation of findings pursuant to Rule 1402(g).
- (19) PRIORITIZATION SCORE GREATER THAN TEN (10.0) FACILITY means a facility that does not have an approved health risk assessment and has been prioritized by the District in accordance with Health and Safety Code Section 44360(a) using procedures that have undergone public review and that are consistent with the procedures presented in the most current version of the SCAQMD "Facility Prioritization Procedures For AB 2588 Program", which is incorporated by reference herein, and the greater of the facility's prioritization scores for cancer and non-cancer effects is greater than 10.0.
- (20) RISK OF 10.0 TO LESS THAN 50.0 PER MILLION FACILITY means a facility that has had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362 and whose risk assessment results meet either of the following criteria:

- (A) A total potential cancer risk, summed across all pathways of exposure and all compounds, of greater than or equal to 10.0, but less than 50.0 cases per million persons; or
 - (B) A total hazard index for each toxicological endpoint, either acute or chronic, of greater than 1.0 and a total potential cancer risk, summed across all pathways of exposure and all compounds, of less than 50.0.
- (21) **RISK OF 50.0 TO LESS THAN 100.0 PER MILLION FACILITY** means a facility that has had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362 and whose risk assessment results show a total potential cancer risk, summed across all pathways of exposure and all compounds, of greater than or equal to 50.0, but less than 100.0 cases per million persons.
- (22) **RISK OF 100.0 PER MILLION OR GREATER FACILITY** means a facility that has had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362 and whose risk assessment results show a total potential cancer risk, summed across all pathways of exposure and all compounds, of greater than or equal to 100.0 cases per million persons.
- (23) **SIGNIFICANT RISK LEVEL** is a maximum individual cancer risk of at least one hundred per million (100×10^{-6}) or a total acute or chronic hazard index of at least five (5) for any target organ system at any receptor location.
- (24) **SIMPLE FACILITY** means a facility that has one (1) or two (2) processes as determined by six-digit SCC.
- (25) **SMALL BUSINESS** for the purpose of this rule, means a facility which is independently owned and operated and has met all of the following criteria in the preceding year:
- (A) The facility has ten (10) or fewer (annual full-time equivalence) employees;
 - (B) The facility's total annual gross receipts are less than \$1,000,000; and
 - (C) The total annual gross receipts of the facility's California operations are less than \$5,000,000.
- (26) **SOURCE CLASSIFICATION CODES (SCC)** means number codes created by the United States Environmental Protection Agency used to identify

processes associated with point sources that contribute emissions to the atmosphere.

- (27) SPECIAL REVIEW FEE means the fee charged to facilities to cover the cost of the qualified District personnel or a qualified consultant, as determined by the Executive Officer (EO), engaged by the District under contract, in the event that the EO determines that an air toxics inventory report or health risk assessment should be revised and the owner/operator cannot perform this task without errors or delays.
- (28) STATE COSTS means the reasonable anticipated cost which will be incurred by the CARB and OEHHA to implement and administer the Act, as shown in the District staff report.
- (29) STATE INDUSTRY-WIDE FACILITY means a facility that (1) qualifies to be included in an industry-wide emission inventory prepared by the District pursuant to Health and Safety Code Section 44323, (2) releases, or has the potential to release, less than ten tons per year of each criteria pollutant, and (3) is either of the following:
 - (A) A facility in one of the following four classes of facilities: autobody shops, as described by NAICS Codes 441110 or 811121; gasoline stations, as described by NAICS Codes 447110 and 447190; dry cleaners, as described by NAICS Code 812320; and printing and publishing, as described by NAICS Codes 323111 through 323117 or 511110 through 511199; or
 - (B) A facility that has not prepared an Individual Plan and Report in accordance with sections 44340, 44341, and 44344 of the Health and Safety Code and for which the District submits documentation for approval by the Executive Officer of the CARB, verifying that the facility meets the requirements of Health and Safety Code Section 44323(a)-(d).
- (30) SUPPLEMENTAL FEE means the fee charged, pursuant to Section 44380.5 of the Health and Safety Code, to cover the costs of the District to review a health risk assessment containing supplemental information which was prepared in accordance with the provisions of Section 44360(b)(3) of the Health and Safety Code.
- (31) TOTAL ORGANIC GASES (TOG) means all gases containing carbon, except carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

- (32) UNPRIORITIZED FACILITY means a facility that has not been prioritized by the District in accordance with Health and Safety Code Section 44360(a) using procedures that have undergone public review and that are consistent with the procedures presented in the most current version of the SCAQMD “Facility Prioritization Procedures For AB 2588 Program”, which is incorporated by reference herein.
- (33) VOLUNTARY RISK REDUCTION FACILITY means a facility that elected to participate in the Voluntary Risk Reduction Program pursuant to Rule 1402.

(d) Fees

All sources subject to this rule shall be assessed an annual fee pursuant to Table I of this rule.

(1) Calculation of Fees

- (A) The District will establish the fee applicable to each facility for the recovery of State and District costs. The District will use State costs and District costs to calculate fees, and will take into account and allow for the unanticipated closing of businesses, nonpayment of fees, and other circumstances which would result in a shortfall in anticipated revenue; and
- (B) The District will calculate fees on the basis of the Facility Program Category as set forth by July 1 of the applicable fiscal year, except for facilities excluded under subparagraph (d)(9) of this rule.

(2) Flat Fees

- (A) A facility in the State Industry-Wide Facility Program Category, as defined in this rule, shall be assessed the fee specified in Table I.
- (B) A facility in the District Tracking Program Category, as defined in this rule, will be assessed the annual fee specified in Table I to cover the cost to the District to review the facility's quadrennial emission inventory update.
- (C) A facility in the Diesel Engine Facility Program Category, as defined in this rule, shall be assessed the annual Flat Fee specified in Table I.
- (D) The maximum fee that a small business as defined in this rule shall pay is \$300.00.

(E) The supplemental fee as defined in this rule, which may be assessed upon the operator of a facility, shall be no higher than \$3,106.66.

(3) **Special Review Fees**

When a facility's air toxics inventory report or health risk assessment submitted pursuant to Rule 1402 is prepared or revised by District personnel or a contractor engaged by the District, the owner/operator of the facility for which an air toxics inventory report or health risk assessment is performed shall pay the fees equal to the total actual and reasonable time incurred by District, including actual contractor costs as invoiced and District staff time assessed at the hourly rate of \$150.62. When the air toxics inventory report or health risk assessment is conducted or is evaluated and verified by a consultant engaged by the District or District personnel, the fees charged will be in addition to all other fees required.

(4) **Voluntary Risk Reduction Facility Fees**

A Voluntary Risk Reduction Facility, as defined in this rule, shall be assessed the fee specified in Table I until approval of the Final Implementation Report under Rule 1402 paragraph (j)(2). Once the Final Implementation Report is approved by the Executive Officer, the Voluntary Risk Reduction Fee shall be assessed the HRA Tracking Facility Program Category specified in Table I.

(5) **Potentially High Risk Level Facility Fees**

When a facility is designated as a Potentially High Risk Level Facility, as defined under Rule 1402, the owner/operator of the facility shall pay a fee for staff time at the rate of \$172.88 per hour to offset the District's costs to determine Rule 1402 compliance. The Potentially High Risk Level Facility Fees are billed annually and are due at the time of the AB 2588 annual billing which allows a reasonable time for payment. The Potentially High Risk Level Facility Fees will not exceed \$100,000 per year per facility.

(6) **Public Notifications and Meetings**

When public notification is required pursuant to Rule 1402 subdivision (q), the facility owner/operator shall either directly pay or reimburse the District for costs of Public Meetings, including venue rental, audio visual rental equipment and personnel, mailing, translation services, parking, security, and equipment rental.

(7) Fee Payment and Collection; Effect of Failure to Pay

- (A) The District will notify and assess the operator of each facility subject to this rule in writing of the fee due. The operator shall remit the fee to the District within sixty (60) days after the receipt of the fee assessment notice or the fee will be considered past due. For the purpose of this rule, the fee payment will be considered received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the due date stated on the billing notice. If the due date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the due date.
- (B) If an operator fails to pay the fee within sixty (60) days of this notice pursuant to subparagraph (d)(7)(A) of this rule, the District may assess a surcharge of not more than one hundred percent (100%) of the assessed fee, but in an amount sufficient, in the District's determination, to pay the District's additional expenses incurred by the operator's non-compliance. If an operator fails to pay the fee within 120 days after receipt of this notice, the District may initiate permit revocation proceedings. If any permit is revoked it shall be reinstated only upon full payment of the overdue fees plus any surcharge as specified in this subparagraph.

(8) Payment to the State

The District will collect the fees assessed by or required to be assessed by this rule. After deducting the costs to the District to implement and administer the program, the District will transmit to the State Board the amount the District is required to collect for recovery of state costs as specified in Table I.

(9) Exemptions

A facility shall be exempt from paying fees if, by July 1 of the applicable Fiscal Year, any one or more of the following criteria are met:

- (A) The facility has been prioritized by the District in accordance with Health and Safety Code Section 44360(a) using procedures that have undergone public review, and the facility's prioritization score is less than or equal to 1.0 for both cancer and non-cancer health

effects. The procedure for estimating priority of facilities were developed based on the most current approved version of SCAQMD “Facility Prioritization Procedures For AB 2588 Program”, which is incorporated by reference herein.

- (B) The facility had its health risk assessment approved by the District in accordance with Health and Safety Code Section 44362 and the risk assessment results show a total potential cancer risk, summed across all pathways of exposure and all compounds, of less than one case per one million persons and a total hazard index for each toxicological endpoint, both acute and chronic, of less than 0.1. Some appropriate procedures for determining potential cancer risk and total hazard index are presented in the most current approved version of the OEHHA “Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments” and SCAQMD “Supplemental Guidelines for Preparation of Health Risk Assessments for the Air Toxics “Hot Spots” Information and Assessment Act”, which are incorporated by reference herein.
- (C) The facility primarily performs printing as described by NAICS Codes 323111 through 323117 or 511110 through 511199, and the facility uses an annualized average of two (2) gallons per day or less [or seventeen (17) pounds per day or less] of all graphic arts materials (deducting the amount of any water or acetone) unless the District required a health risk assessment and results show the facility would not qualify under subparagraph (d)(9)(A) of this rule.
- (D) The facility is a wastewater treatment plant as described by NAICS Code 221320, the facility does not have a sludge incinerator and the maximum throughput at the facility does not exceed 10,000,000 gallons per day of effluent unless the District required a health risk assessment and results show the facility would not qualify under subparagraph (d)(9)(A) of this rule.
- (E) The facility is a crematorium for humans, animals, or pets as described by NAICS Codes 812210, 812220, or any NAICS Code that describes a facility using an incinerator to burn biomedical waste (animal), the facility uses propane or natural gas as fuel, and the facility annually cremates no more than 300 cases (human) or 43,200 pounds (human or animal) unless the District required a

health risk assessment and results show the facility would not qualify under subparagraph (d)(9)(A) of this rule. Facilities using incinerators that burn biomedical waste other than cremating animals do not qualify for this exemption.

- (F) The facility is primarily a boat building and repair facility or primarily a ship building and repair facility as described by NAICS Codes 336611, 336612, 488390 or 811490, and the facility uses twenty (20) gallons per year or less of coatings or is a coating operation using hand held non-refillable aerosol cans only unless the District required a health risk assessment and results show the facility would not qualify under subparagraph (d)(9)(A) of this rule.
- (G) The facility is a hospital or veterinary clinic building that is in compliance with the control requirements specified in the Ethylene Oxide Control Measure for Sterilizes and Aerators, section 93108 of this title and has an annual usage of ethylene oxide of less than 100 pounds per year if it is housed in a single story building, or has an annual usage of ethylene oxide of less than 600 pounds per year if it is housed in a multi-story building unless the District required a health risk assessment and results show the facility would not qualify under subparagraph (d)(9)(A) of this rule.
- (H) The facility was not required to conduct a risk assessment under Health and Safety Code Section 44360(b), and the District, or the facility with the concurrence of the District, has conducted a worst-case, health conservative risk assessment using screening air dispersion modeling criteria set forth in Appendix F of the Guidelines Report and has demonstrated to the satisfaction of the District that the facility's screening risk levels meet the criteria set forth in subparagraph (d)(9)(A) of this rule.

TABLE I
FACILITY FEES BY PROGRAM CATEGORY

FACILITY PROGRAM CATEGORY	COMPLEXITY	DISTRICT FEE	STATE FEE	TOTAL FACILITY FEE
<i>HRA Tracking</i>¹	Simple Facility	\$441.17	\$67	\$508.17
	Medium Facility	\$637.29	\$100	\$737.29
	Complex Facility	\$833.41	\$134	\$967.41
<i>Unprioritized</i>	Simple Facility	\$655.66	\$402	\$1,057.66
	Medium Facility	\$3,592.96	\$603	\$4,195.96
	Complex Facility	\$4,774.53	\$804	\$5,578.53
<i>PS>10, No HRA</i>	Simple Facility	\$5,563.37	\$1,674	\$7,237.37
	Medium Facility	\$5,958.69	\$2,009	\$7,967.69
	Complex Facility	\$6,350.95	\$2,344	\$8,694.95
<i>Risk ≥10 <50 in a million or HI>1</i>	Simple Facility	\$6,746.24	\$3,014	\$9,760.24
	Medium Facility	\$7,140.01	\$3,349	\$10,489.01
	Complex Facility	\$7,533.82	\$3,684	\$11,217.82
<i>Risk ≥50 <100 in a million</i>	Simple Facility	\$7,929.12	\$4,353	\$12,282.12
	Medium Facility	\$8,321.36	\$4,688	\$13,009.36
	Complex Facility	\$8,716.65	\$5,023	\$13,739.65
<i>Risk ≥100 in a million</i>	Simple Facility	\$9,112.00	\$5,693	\$14,805.00
	Medium Facility	\$9,504.24	\$6,028	\$15,532.24
	Complex Facility	\$9,903.43	\$6,363	\$16,266.43
<i>Potentially High Risk Level</i>	Simple Facility	T&M ²	\$5,693 ³	\$(T&M ² + 5,693 ³)
	Medium Facility	T&M ²	\$6,028 ³	\$(T&M ² + 6,028 ³)
	Complex Facility	T&M ²	\$6,363 ³	\$(T&M ² + 6,363 ³)
<i>Voluntary Risk Reduction</i>	Simple Facility	\$5,563.37	\$1,674	\$7,237.37
	Medium Facility	\$5,958.69	\$2,009	\$7,967.69
	Complex Facility	\$6,350.95	\$2,344	\$8,694.95
<i>District Tracking</i>⁴		\$243.88		\$243.88
<i>State Industry-wide</i>		\$177.60	\$35	\$212.60
<i>Diesel Engine Facility</i>		\$132.98		\$132.98

¹ HRA Tracking --- (PS > 10 with HRA) Risk ≥ 1, <10 in a million, or HI ≥ 0.1, ≤ 1

² T&M --- Annual District fee will be capped at \$100,000 per year per facility.

³ For facilities with Risk > 100 in a million, the state fee is equivalent to that of the “Risk ≥ 100 in a million” category. For facilities with HI > 5.0, the state fee is equivalent to the “Risk ≥10 <50 in a million or HI>1” category.

⁴ District Tracking --- PS > 1, ≤ 10

HRA --- Health Risk Assessment

HI --- Hazard Index, Acute or Chronic

PS --- Priority Score

ATTACHMENT F7

(Adopted June 10, 1994)(Amended May 10, 1996)(Amended May 9, 1997)
(Amended May 8, 1998)(Amended May 14, 1999)(Amended May 19, 2000)
(Amended May 11, 2001)(Amended May 3, 2002)(Amended June 6, 2003)
(Amended July 9, 2004)(Amended June 3, 2005)(Amended June 9, 2006)
(Amended May 4, 2007)(Amended May 2, 2008)(Amended May 7, 2010)
(Updated July 1, 2011)(Updated July 1, 2012)(Updated July 1, 2013)
(Amended June 6, 2014)(Amended May 1, 2015)(Updated July 1, 2016)
(Amended June 2, 2017)(Updated May 4, 2018)
(PAR 309 – February 12, 2019)

Effective July 1, 2018

PROPOSED AMENDED RULE 309. FEES FOR REGULATION XVI AND REGULATION XXV

(a) Applicability

Provisions of this rule shall apply to fees assessed for plans required by Regulation XVI and Regulation XXV, and for the transfer and acquisition of Mobile Source Emission Reduction Credits (MSERCs) generated pursuant to Regulation XVI and Regulation XXV rules. Fees shall be paid for:

- (1) Rule 1610 Scrapping Plans
- (2) Regulation XVI and Regulation XXV Mobile Source Emission Reduction Credit (MSERC) Applications and Compliance Plans
- (3) MSERC Transaction Registration

(b) Definitions

For the purpose of this rule the following definitions shall apply:

- (1) MSERC TRANSACTION is the trade or transfer of MSERC ownership between entities, or between MSERC accounts of the same entity. MSERCs shall be denominated in terms of one pound of MSERC pollutant.
- (2) PLAN is any data and/or test report required by federal or state law, or District rules and regulations to be submitted to the District. Plans include, but are not limited to, the following: Rule 1610 Scrapping Plans, Regulation XVI and Regulation XXV MSERC Applications, and Regulation XVI and Regulation XXV Compliance Plans.
- (3) SMALL BUSINESS is as defined in Rule 102.

(c) Fee Assessments

- (1) Rule 1610 Scrapping Plans shall be assessed a filing and evaluation fee of \$1,936.38. The fee shall be paid at the time of plan submittal.
- (2) Regulation XVI and Regulation XXV Plans as defined in paragraph (b)(2), except Scrapping Plans, shall be assessed a filing fee of \$146.86 and an evaluation fee of \$489.61 at the time of submittal.
- (3) Additional evaluation fees for plans shall be assessed at the rate of \$143.25 per person per hour if necessary. Evaluation fees shall also be assessed at this rate for any amendments to Plans and Applications.
- (4) For small businesses filing scrapping plans, MSERC applications, and compliance plans, the fees assessed shall be fifty percent (50%) of the amounts specified in paragraphs (c)(1), (c)(2), and (c)(3).
- (5) MSERC transactions shall be jointly registered with the District by the MSERC transferor and transferee. The transferee shall be assessed a Transaction Registration Fee of \$95.74 per transaction at the time the transaction is registered with the District.

(d) Inspection Fee

The inspection fee for Rule 1610 Scrapping Plan verification shall be an amount equal to the total actual and reasonable time incurred by the District for inspection and verification of the plan, assessed at the hourly rate of \$117.42 per inspection staff or prorated portion thereof. For inspections conducted outside of regular District working hours, the fee shall be assessed at a rate of 150% of the above hourly rate.

(e) Payment of Fees

- (1) Payment of all applicable fees, including annual review/renewal fee, shall be due in thirty (30) days from the date of personal service or sending by mail, electronic mail, or other electronic means, ~~or mailing~~ of the notification of the amount due. Non-payment of the fee within this time period will result in expiration of the plan. For the purpose of this paragraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date

falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid, ~~or~~ on the business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date. No further plan applications will be accepted until such time as all overdue fees have been fully paid.

- (2) Whenever the Executive Officer has reasonable cause to believe that the plan evaluation fee will be less than the fee for one hour's work, the fee need not be paid at the time of filing and notification of amount due, if any, shall be sent at the time the plan is approved or rejected.

(f) Refunds

- (1) If a plan or an application as defined in paragraph (b)(2) is canceled, plan filing and evaluation fees, less the plan cancellation fee, will be refunded:
 - (A) If it is determined that the plan was not required pursuant to District rules; or
 - (B) The plan evaluation procedure has not been initiated by District staff.
- (2) The plan cancellation fee will be \$195.75.
- (3) Claims for refund of any fee required by this rule shall be submitted in writing within one (1) year after the fee was paid.
- (4) The cancellation fee shall not apply when the plan was filed based on an erroneous District request.

(g) Government Agencies

Federal, state, or local government agencies or public districts shall pay all fees.

ATTACHMENT F8

(Adopted May 7, 2010)(Amended May 6, 2011)(Updated July 1, 2011)
(Updated July 1, 2012)(Updated July 1, 2013)(Amended June 6, 2014)
(Amended May 1, 2015)(Updated July 1, 2016)(Amended June 2, 2017)
(Amended May 4, 2018)
(PAR 315 – February 12, 2019)

EFFECTIVE JULY 1, 2018

PROPOSED AMENDED RULE 315. FEES FOR TRAINING CLASSES AND LICENSE RENEWAL

(a) Fees for Rule Training Classes

SCAQMD Training Class	Fee
Rules 403 & 403.1	No Cost
Rule 461 Daily Self-Inspection Class	\$162.38
Rule 461 Annual Periodic Inspection Class	\$177.71
Rule 461 Tester Orientation Class	\$168.96
Rule(s) 463/1178	\$82.13
Rule(s) 1110.2/1146/1146.1	No Cost
Rule 1176	\$63.47
Rule 1403	\$88.38
Rule 1469	\$35.09

(b) Certified Permitting Professional (CPP) License Fees

- (1) The fee for the CPP exam administered by SCAQMD is \$167.71. This fee also covers the first year license fee for those who pass the exam.
- (2) The annual renewal fee for the CPP license fee is \$167.71. The license shall expire if the license renewal fee is not received by the District, ~~or~~

postmarked, or electronically paid within 30 days after invoices are sent by mail, electronic mail, or other electronic means or the mailing of invoices or June 30th, whichever is later.

- (3) A CPP license that has expired due to nonpayment of the annual renewal fee may be reinstated by submitting a request for reinstatement and payment in full of the amount due at the time the license expired. A reinstatement surcharge shall also be paid equivalent to fifty percent (50%) of the amount due. Such request and payment shall be made within six (6) months of the license expiration. A license shall not be reinstatable after December 31st of the year it has expired.

ATTACHMENT F9

(Adopted January 12, 1996)(Amended December 21, 2001)
(PAR 518.2 – February 12, 2019)

PROPOSED AMENDED RULE 518.2. FEDERAL ALTERNATIVE OPERATING CONDITIONS

(a) Purpose

This rule establishes procedures by which a Title V facility, as defined in subdivision (b) of Rule 3000 - General, may obtain approval of an Alternative Operating Condition from the SCAQMD Hearing Board that would be recognized by the United States Environmental Protection Agency. Incorporation of an Alternative Operating Condition into a Title V permit pursuant to the requirements of this rule would shield the petitioner from enforcement pursuant to the federal Clean Air Act of otherwise applicable requirements specifically modified by the Alternative Operating Condition.

(b) Definitions

- (1) ACTIVITY LEVEL is the amount of activity of the source during the emission reduction strategy, expressed in units consistent with the units of baseline and post-reduction emission rate.
- (2) ALTERNATIVE OPERATING CONDITION is an order established by the Hearing Board pursuant to subdivision (e) of this rule which, if recognized by the United States Environmental Protection Agency, authorizes a source to be operated in a specified manner that would otherwise not comply with an applicable requirement of the State Implementation Plan or a permit term or condition based on any such applicable requirement.
- (3) ALTERNATIVE OPERATING CONDITION CREDIT means an emissions reduction credit or a mobile source emission reduction credit created pursuant to an EPA approved rule, or an alternative credit or allowance approved into the SIP by EPA, and held by the District for the purpose of offsetting excess emissions allowed under an Alternative Operating Condition.

- (4) ALTERNATIVE OPERATING CONDITION CREDIT BANK means the repository for the Alternative Operating Condition Credits that the District is holding to offset excess emissions pursuant to this rule.
- (5) APPLICABLE REQUIREMENTS means all requirements listed in paragraph (c)(1).
- (6) BASELINE EMISSION RATE means the lowest of:
 - (A) The emission rate allowed by the most stringent regulatory requirement applicable to the source; or
 - (B) The emission rate in an applicable Air Quality Management Plan Control Measure with implementation dates contemporaneous with the emission reduction; or
 - (C) The documented actual historical emission rate averaged over the two years preceding the emission reduction.
- (7) BREAKDOWN means a condition caused by a mechanical or electrical failure or the failure of a source to operate as designed.
- (8) EMERGENCY means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- (9) EMISSION REDUCTION DURATION is the length of time during which the emission reduction strategy results in verifiable and surplus emission reductions.
- (10) EXCESS EMISSIONS means the amount of emissions from a source, stated in pounds per month, that exceeds the amount of emissions that would be allowed if the source were operated in compliance with an applicable requirement, calculated pursuant to paragraph (h)(1) of this rule.
- (11) FACILITY means any permit unit or source, or grouping of permit units or sources, or other air contaminant-emitting activities which are located on one or more contiguous properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an

outer continental shelf (OCS) source as defined in 40 CFR Section 55.2. Such above-described groupings, if on noncontiguous properties, but connected only by land carrying a pipeline, shall not be considered one facility. Equipment or installations involved in crude oil and gas production in Southern California coastal or OCS waters, and transport of such crude oil and gas in Southern California coastal or OCS waters, shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas facility on shore.

- (12) INTRA-FACILITY EMISSION REDUCTION CREDIT is an amount of emission reduction from within a facility seeking an Alternative Operating Condition that is eligible for credit pursuant to the criteria set forth in this rule. Intra-facility Emission Reduction Credits may be used to reduce the amount of Alternative Operating Condition Credits needed to obtain an Alternative Operating Condition.
- (13) POST-REDUCTION EMISSION RATE means the emission rate of the source after implementation of the emission reduction strategy.
- (14) SOURCE means any discrete operation, unit or pollutant-emitting activity at a facility.
- (15) TITLE V FACILITY means any facility that meets the criteria set forth in subdivision (a), (b) or (c) of Rule 3001 - Applicability.

(c) Applicability

- (1) This rule authorizes the District Hearing Board to establish Alternative Operating Conditions for Title V facilities. Alternative Operating Conditions may be established for the following statute and District rules and regulations, and for federally-enforceable permit terms and conditions that are based on such statute, rules and regulations:
 - (A) Health and Safety Code Section 41701;
 - (B) Rules 202, 203, 217, 218 and 221;
 - (C) Regulation IV, except Rules 402 and 430;
 - (D) Regulation VII;
 - (E) Regulation XI;
 - (F) Rule 2202; and
 - (G) Regulation XX, except-
 - (i) any provisions which require Permits to Construct or which set forth requirements for Permits to Construct,

- (ii) missing data provisions of Appendix A, Chapter 2 of Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_x) Emissions, and Appendix A, Chapter 2 of Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions, and
 - (iii) subdivisions (b), (d), (o), and (p) of Rule 2004 – Requirements, and any permit conditions which state annual Allocations.
 - (2) No Alternative Operating Condition shall be granted from any federally promulgated rule, regulation or permit condition, or any District rule that substitutes for such requirements under section 112(l), including but not limited to the following:
 - (A) the requirement to apply for and obtain an operating permit under Rule 3002 – Requirements, or an authority to construct;
 - (B) any requirement of NSPS, NESHAP or other standard promulgated by the U.S. EPA under Sections 111 or 112 of the Clean Air Act;
 - (C) any standard promulgated by the U.S. EPA under Title IV or Title VI of the Clean Air Act; or
 - (D) any requirement contained in a permit issued by the U.S. EPA.
 - (3) No Alternative Operating Condition shall be granted from any rule or provision for which a variance is not allowed under Rule 504 - Rules for Which Variances Are Not Allowed.
 - (4) Except in the case of an emergency or a breakdown of technology, no Alternative Operating Condition shall be granted from the requirement to implement Best Available Control Technology as required by Rule 1303(a) or 2005 or from a permit condition that was imposed to avoid application of Best Available Control Technology as required by Rule 1303(a) or 2005.
 - (5) Except in the case of an emergency or a breakdown of technology, no Alternative Operating Condition shall be granted from a permit condition which was imposed to avoid the applicability of a requirement from which a variance may not be granted pursuant to paragraphs (c)(1) and (c)(2).
- (d) **Modification of Applicable Requirements**
- A source shall not be subject to a provision of an applicable requirement specified in paragraph (c)(1) of this rule if the source is subject to an Alternative Operating

Condition established for such provision that has been incorporated into its Title V permit in accordance with paragraph (f) of this rule.

(e) Establishment of Alternative Operating Conditions

- (1) Alternative Operating Conditions may be established only by the District Hearing Board upon petition relating to a specified source.
- (2) A petitioner shall not receive an Alternative Operating Condition unless all of the following circumstances exist:
 - (A) the petitioner is or will be in violation of any applicable requirement(s) listed in paragraph (c)(1) of this rule;
 - (B) due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either (1) an arbitrary or unreasonable taking of property or (2) the practical closing and elimination of a lawful business. In making the above findings, where the petitioner is a public agency, the Hearing Board shall consider whether or not requiring immediate compliance would impose an unreasonable burden upon an essential public service. For purposes of this subparagraph, "essential public service" means a prison, detention facility, police or fire-fighting facility, school, health care facility, landfill gas control or processing facility, sewage treatment works, or water delivery operation, if owned and operated by a public agency;
 - (C) the closing or taking would be without a corresponding benefit in reducing air contaminants;
 - (D) the petitioner for the Alternative Operating Condition has given consideration to curtailing operations of the source in lieu of obtaining an Alternative Operating Condition;
 - (E) during the period the Alternative Operating Condition is in effect, the petitioner will reduce excess emissions to the maximum extent feasible;
 - (F) during the period the Alternative Operating Condition is in effect, the petitioner will monitor or otherwise quantify emission levels from the source, and report these emission levels to the District pursuant to a schedule established by the District;
 - (G) the Alternative Operating Condition will not result in noncompliance with the requirements of any NSPS, NESHAP or

other standard promulgated by the U.S. EPA under Sections 111 or 112 of the Clean Air Act, or any District rule that substitutes for such requirements under section 112(l), or any standard or requirement promulgated by the U.S. EPA under Titles IV or VI of the Clean Air Act, or any requirement contained in a permit issued by the U.S. EPA, or other requirement contained in paragraph (c)(2);

- (H) any emissions (calculated pursuant to subparagraph (h)(3)(B) of this rule) resulting from the Alternative Operating Condition will not, in conjunction with emissions (calculated pursuant to subparagraph (h)(3)(B)) resulting from all other Alternative Operating Conditions established by the Hearing Board and in effect at the time, exceed the amount of Alternative Operating Condition Credits held in the Alternative Operating Condition Credit Bank; and
 - (I) operation under the Alternative Operating Condition will not result in the source discharging such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- (3) In addition to the circumstances specified in paragraph (e)(2) of this rule, if the violation of the applicable requirement is caused by a breakdown of technology, a petitioner shall not receive an Alternative Operating Condition unless all of the following circumstances exist:
- (A) the violation could not have been prevented through careful planning or design;
 - (B) the breakdown could not reasonably have been foreseen and avoided;
 - (C) at all times the equipment, including air pollution control equipment, or processes were maintained and operated in a manner consistent with good practice for minimizing emissions;
 - (D) repairs were or will be made in an expeditious fashion using off-shift labor and overtime, to the extent practicable, to ensure that such repairs are made as expeditiously as practicable; and
 - (E) the breakdown is not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

- (4) If the violation occurs during startup or shutdown, the frequency and duration of operation in startup or shutdown mode must be minimized to the maximum extent practicable.
 - (5) The Hearing Board shall not establish an Alternative Operating Condition unless the Board establishes, as part of the Alternative Operating Condition, enforceable alternative emissions limits, operational requirements, and/or monitoring and recordkeeping provisions, as set forth in subdivision (g).
 - (6) The Hearing Board shall not establish an Alternative Operating Condition unless it makes its findings that the circumstances described in paragraphs (e)(2), (e)(3) and/or (e)(4), as applicable, exist. The petitioner bears the burden of proof. The findings shall be based on evidence in the record of a public hearing which is noticed and conducted in compliance with Health and Safety Code Sections 40820-40865, except in the case of an Alternative Operating Condition established by the Board or a single member thereof under circumstances specified in Health & Safety Code Section 42359 or 42359.5. An Alternative Operating Condition established by the Board under circumstances specified in Health & Safety Code Section 42359 shall be based on evidence in the record of a public hearing which is conducted pursuant to Health & Safety Code Sections 40820, 40822, and 40828-40865. An Alternative Operating Condition established by a single Board member under circumstances specified in Health & Safety Code Section 42359.5 shall be based on evidence presented in the form of a petition and declaration signed under penalty of perjury, and may be supplemented by sworn oral testimony.
 - (7) The Hearing Board shall deny a petition for an Alternative Operating Condition if excess emissions resulting from operation of a source pursuant to the Alternative Operating Condition would, by themselves, cause an exceedance of a National Ambient Air Quality Standard. The burden of proof on this issue, should it arise, shall be upon the source.
- (f) EPA Objection; Effective Date of Alternative Operating Condition
- (1) Each Alternative Operating Condition shall be subject to review for 30 days by the public and any affected state, and, concurrently, for 45 days by the U.S. EPA. The review period may commence prior to approval of the Alternative Operating Condition by the Hearing Board and, in such event, will satisfy this subdivision if the terms of the Alternative Operating

Condition approved by the Hearing Board do not significantly deviate from the proposed terms that were made available to the public, affected states, and the U.S. EPA.

- (2) Copies of any adverse comments shall be forwarded to EPA by the District within two (2) working days of receipt.
- (3) If the terms of the Alternative Operating Condition approved by the Hearing Board significantly deviate from proposed terms released for review, the approved terms must be subjected to the notice requirements of paragraphs (f)(4) and (f)(5) and the process requirements of paragraph (f)(6).
- (4) The U.S. EPA's 45-day review period shall commence on the latter of the date of public notification or upon the U.S. EPA's receipt of the following information:
 - (A) a copy of the proposed or issued Alternative Operating Condition;
 - (B) information sufficient to support the findings set forth in subdivision (e); and
 - (C) the name of any affected state as defined in subdivision (b) of Rule 3000 – General.
- (5) Notification to the public and affected states shall commence upon the date of public notice as specified in Rule 3006 – Public Participation, including ~~publication in a daily newspaper of general circulation~~ posting the notice on the District public website.
- (6) If EPA objects to the Alternative Operating Condition in writing within its 45 day review period, in the manner set forth in paragraph (k)(1) of Rule 3003 – Applications--
 - (A) the District shall notify the petitioner of U.S. EPA's objection; and
 - (B) the Alternative Operating Condition shall be ineffective unless the Hearing Board adopts and submits to U.S. EPA a revised Alternative Operating Condition which conforms to such objection or EPA issues a written rescission to its objection.
- (7) If the U.S. EPA does not object to the Alternative Operating Condition, it shall become operative, effective as of the date of issuance by the Hearing Board, subject to the provisions of subdivision (l) of Rule 3003 – Applications. The effective date shall be the date of filing the petition with the Hearing Board if excess emissions during the period between the filing of the petition and the issuance of the Alternative Operating Condition by

the Hearing Board are quantifiable and all circumstances specified in paragraph (e)(2) existed during this period.

(g) Content of Alternative Operating Conditions

Each Alternative Operating Condition shall contain the following provisions, as applicable:

(1) Emission Limits

If an Alternative Operating Condition allows emissions that are greater than an emission limit in an applicable requirement, the Hearing Board shall establish an enforceable alternative emission limit that requires the source to reduce excess emissions to the maximum extent feasible. The Hearing Board may establish an alternative emission limit for any source located at the facility that creates emissions of the subject pollutant that may feasibly be reduced.

(2) Operational Requirements

If an Alternative Operating Condition allows deviation from an applicable operational requirement that is designed to limit or minimize emissions, the Hearing Board shall establish an enforceable alternative operational requirement or emission limit that requires the source to operate in a manner that reduces excess emissions to the maximum extent feasible. The Hearing Board may establish an alternative operational requirement or emission limit for any source located at the facility which creates emissions of the subject pollutant that may feasibly be reduced.

(3) Monitoring, Recordkeeping, and Reporting Requirements

If the Alternative Operating Condition allows deviation from an applicable emissions monitoring, recordkeeping or reporting requirement, the Hearing Board shall establish an enforceable alternative requirement which, to the extent feasible:

- (A) mandates quantification, recordkeeping, and reporting of emissions as accurately, expeditiously, and verifiably as the applicable requirement,
- (B) complies with the requirements of paragraph (a)(4) of Rule 3004 – Permit Type and Content, and
- (C) for RECLAIM sources, complies with the RECLAIM protocols for monitoring, recordkeeping, and reporting.

(4) Conditions

The Hearing Board shall impose conditions, other than those imposed by applicable requirements, that are necessary to ensure quantifiability of emissions increases, and any decreases, resulting from the Alternative Operating Condition.

(5) Stringency

Any alternative requirement or other condition imposed pursuant to this subdivision shall not be more stringent than an applicable requirement, except when consented to by the petitioner for purposes of excess emissions mitigation.

(6) Term

Each Alternative Operating Condition established by the Hearing Board shall include a term during which the Alternative Operating Condition shall be in effect. The term shall be determined in accordance with Health and Safety Code Sections 42352 and 42358. Upon termination of the Alternative Operating Condition, the source shall comply with all applicable requirements and the preexisting permit term(s) shall have full force and effect.

(7) EPA Objection

Each Alternative Operating Condition shall contain a provision stating that if the U.S. EPA objects to the Alternative Operating Condition within its 45-day review period or in response to a citizen petition, the Alternative Operating Condition is ineffective to protect the petitioner from U.S. EPA or citizen enforcement under the federal Clean Air Act for any federally enforceable requirement.

(h) Emissions Calculations

For purposes of determining whether or not the amount of excess emissions resulting from an Alternative Operating Condition exceeds the amount of Alternative Operating Condition Credits in the Alternative Operating Condition Credit Bank, as set forth in subparagraph (e)(2)(H) of this rule, the amount of excess emissions resulting from establishment of an Alternative Operating Condition, and the amount of any emission reductions resulting from conditions included in the Alternative Operating Condition, shall be determined in the following manner:

(1) Excess Emissions

Excess emissions from the source that is in violation of an applicable requirement shall be calculated as follows:

- (A) calculate calendar monthly mass emissions allowed by the applicable requirement based on the terms of the applicable requirement and projected activity during the term of the Alternative Operating Condition;
- (B) calculate calendar monthly mass emissions allowed by the Alternative Operating Condition based on any alternative emission limits, operational requirements and other conditions established pursuant to subdivision (g), and projected activity during the term of the Alternative Operating Condition; and
- (C) subtract the calendar monthly mass emissions calculated pursuant to subparagraph (A) from the calendar monthly mass emissions calculated pursuant to subparagraph (B).

(2) Intra-Facility Emission Reductions

A Title V facility may reduce the amount of Alternative Operating Condition Credits it needs to obtain an Alternative Operating Condition by reducing emissions internally from a source other than the source which is in violation of an applicable requirement. The reduction shall meet the following requirements:

- (A) The emission reduction duration shall be contemporaneous with the period during which the Alternative Operating Condition is in effect;
- (B) The emission reduction shall be:
 - (i) *real* (meaning the emission reduction reflects an actual decrease in air emissions);
 - (ii) *quantifiable* (meaning the quantity of emission reductions can be measured by accurate and replicable techniques. These techniques shall be at least as accurate and replicable as the emission testing methods accepted by the U.S. EPA for State Implementation Plan rule purposes);
 - (iii) *permanent* (meaning the emission reduction will exist for the duration of the Alternative Operating Condition);
 - (iv) *enforceable* (meaning that credible and relevant evidence exists throughout the emission reduction duration with

which to evaluate compliance with the terms and conditions of the Alternative Operating Condition governing the reduction); and

- (v) *surplus* (meaning that throughout the duration of the Alternative Operating Condition, the emission reduction: is not required by any local, state, or federal rule, regulation, law or ordinance; has not been assumed to occur in the Air Quality Management Plan; and no credit has been or shall be taken for the emission reduction under any other program, rule, or regulation).
- (vi) The source providing the emission reduction shall be in compliance with all applicable EPA, ARB, and District rules and regulations, except that in the case of a source which performs multiple processes, emission reductions may be provided from a process that is in compliance with all applicable EPA, ARB, and District rules and regulations even if other processes performed by the same source are not in compliance with such requirements.
- (C) Reductions of RECLAIM pollutants at RECLAIM facilities shall not be eligible to generate emission reductions.
- (D) Intra-facility Emission Reduction Calculation Methodology
The quantity of emission reductions generated by an emission reduction strategy within a facility shall be calculated according to the following formula:

$$IER_{\text{month } i} = [\text{Baseline Emission Rate}_{\text{month } i}] - \text{Post-reduction Emission Rate}_{\text{month } i} \times \text{Activity Level}_{\text{month } i}$$

Where:

$IER_{\text{month } i}$	=	Intra-facility Emission Reductions for month i
$\text{Baseline Emission Rate}_{\text{month } i}$	=	Baseline emission rate in month i
$\text{Post Reduction Emission Rate}_{\text{month } i}$	=	Post Reduction emission rate in month i
$\text{Activity Level}_{\text{month } i}$	=	Activity Level of the source in month i

(3) Alternative Operating Condition Credit Bank Balance Determination

- (A) The Hearing Board will maintain a record of the balance of emissions in the Alternative Operating Condition Credit Bank on a daily basis.

- (B) The amount of emissions that will be debited from the Alternative Operating Condition Credit Bank as a result of an Alternative Operating Condition will be determined by subtracting the emission reduction calculated pursuant to paragraph (2), and the amount of any emission reduction credits temporarily surrendered by the petitioner pursuant to paragraph (5), from excess emissions calculated pursuant to paragraph (1). Any remaining excess emissions calculated pursuant to this subparagraph shall be subtracted from the balance of the Alternative Operating Condition Credit Bank for the applicable period.
- (4) The petitioner shall notify the Hearing Board within five days after achieving continuous compliance with an applicable requirement for which an Alternative Operating Condition has been issued. Upon notification, the Alternative Operating Condition for that applicable requirement shall expire. Any unused emissions previously allocated to a petitioner will be restored by the Hearing Board to the balance of the Alternative Operating Condition Credit Bank for the same period from which they were originally debited.
- (5) For non-RECLAIM sources, and non-RECLAIM pollutants at RECLAIM sources, the amount of excess emissions calculated pursuant to paragraph (h)(1) may be reduced by the amount of excess emissions credits or offsets approved pursuant to Regulation XIII - New Source Review, which the facility voluntarily relinquishes for the term of the Alternative Operating Condition. Relinquishment of ERCs shall not be deemed to satisfy the requirements of subparagraph (e)(2)(E). Executive Officer will not issue a Permit to Construct which relies upon ERCs relinquished pursuant to this paragraph during the period for which such ERCs have been relinquished. The Executive Officer shall not discount the value of ERCs due to relinquishment pursuant to this paragraph.
- (i) **Tracking of Alternative Operating Condition Credits**

The District shall use generally accepted accounting principles for the establishment and implementation of a system for tracking, on a daily basis, the balance of the Alternative Operating Condition Credit Bank. The District shall provide for an annual audit of the tracking system. If the audit shows that the District has failed to establish or implement that tracking system described above,

issuance of future Alternative Operating Conditions shall be suspended until such tracking system has been established and implemented.

(j) Compliance with Alternative Operating Condition

Any source that is subject to an Alternative Operating Condition shall comply with such condition at all times during its term. Any violation of a permit term or condition implementing an Alternative Operating Condition shall constitute a separate violation of this rule for each day of violation.

(k) Fees

Fees for Alternative Operating Conditions will be assessed pursuant to Regulation III - Fees.

(l) Effective Date of Rule

This rule shall be effective upon approval by the U.S. EPA of Regulation XXX - Title V Permits, under Title V of the Clean Air Act, and U.S. EPA approval into the SIP of this rule.

(m) Notice to U.S. EPA

All notices required by this rule to be sent to EPA shall be sent to the Permits Office Chief, Air Division, U.S. EPA Region 9.

ATTACHMENT F10

(Adopted October 5, 1979)(Amended September 10, 1982)(Amended July 12, 1985)
(Amended August 1, 1986)(Amended June 28, 1990)
(Amended December 7, 1995)
(PAR 1310 – February 12, 2019)

PROPOSED AMENDED RULE 1310. **ANALYSIS AND REPORTING**

(a) Completeness of Application

The Executive Officer or designee shall determine whether or not the application is complete and shall notify the applicant in writing not later than 30 calendar days after receipt of the application, or after such longer time as both the applicant and the Executive Officer or designee may agree. If the application is determined to be incomplete, the determination shall specify which parts of the application are incomplete and how they can be made complete. Upon receipt by the Executive Officer or designee of any resubmittal of the application, a new 30-day period, in which the Executive Officer or designee must determine completeness, shall begin. Completeness of an application or resubmitted application shall be evaluated on the basis of the guidelines for such, published by the Executive Officer or designee.

(b) Reporting and Rule Modifications

By February 1997, and annually thereafter, the Executive Officer or designee shall report to the District Governing Board regarding the effectiveness of Regulation XIII in meeting the state and federal NSR requirements.

(c) Requirements for Public Notice

For those sources requesting emission reduction credits in excess of the amounts specified below:

<u>Air Contaminant</u>	<u>Daily Maximum in Lbs Per Day</u>
Volatile Organic Compounds (VOC)	30
Nitrogen Oxides (NO _x)	40
Particulate Matter (PM ₁₀)	30
Sulfur Dioxide (SO _x)	60
Carbon Monoxide (CO)	220

following acceptance of an application as complete, the Executive Officer or designee shall:

- (1) Perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not an ERC should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) Within ten calendar days following such decision, post a public notice on the District public website ~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information required to be made available under paragraph (c)(3). The public notice shall provide 30 days from the date of ~~publication~~ public notice posting for the public to submit written comments on the preliminary decision; and
- (3) At the time ~~notice of~~ the preliminary decision is ~~published~~ publicly noticed posted, make available for public inspection, upon request, at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny an ERC and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

ATTACHMENT F11

(Adopted October 11, 1996)
(PAR 1605 – February 12, 2019)

PROPOSED AMENDED RULE 1605. CREDITS FOR THE VOLUNTARY REPAIR OF ON-ROAD MOTOR VEHICLES IDENTIFIED THROUGH REMOTE SENSING DEVICES

(a) Purpose

The purpose of this rule is to provide opportunities to generate VOC, NOx, and CO mobile source emission reduction credits (MSERCs) that could be used as an alternative means of compliance with District regulations. These credits would be generated based on voluntary emission reductions created by reducing the emissions of high-emitting vehicles through the repair of emissions related components. High-emitting vehicles would be identified through the use of remote sensing devices (RSDs). MSERCs would be based on emission reductions that are surplus to local, state, and federal emission reduction requirements, including the State's Motor Vehicle Inspection Program and Accelerated Vehicle Retirement Program.

(b) Applicability

This voluntary rule is inoperative 60 days subsequent to a declaration by the Bureau of Automotive Repair (BAR) that the enhanced Inspection and Maintenance Program is operational in the District, and applies to 1966 and newer model-year gasoline-powered passenger cars and light-duty trucks that are registered as operable vehicles in the District by the California Department of Motor Vehicles (DMV).

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) BAR90 means the test equipment/procedure implemented since July 1990 by the BAR that is utilized to emission test vehicles as part of the Motor Vehicle Inspection Program.
- (2) CARBON MONOXIDE (CO) means a colorless, odorless gas, having a chemical formula of CO, produced by the incomplete combustion of carbonaceous material.

- (3) CREDIT LIFE means the period of time in years that an MSERC can be used as an alternative means of compliance with a District rule, as permitted by Rule 1605.
- (4) CUT POINT means the minimum HC, CO, or NO_x (if available) exhaust emission concentration level measured by RSD(s) that is used to initially identify potential high-emitting vehicles.
- (5) HIGH-EMITTING VEHICLE means a gasoline powered passenger car or light-duty truck that does not comply with State Motor Vehicle Inspection Program requirements according to the BAR 2500 rpm testing using BAR90 test equipment either for HC or for CO.
- (6) HYDROCARBON (HC) means methane and any other volatile compound of carbon, reported as an equivalent concentration of hexane, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (7) MOTOR VEHICLE INSPECTION PROGRAM means the statewide requirements for the periodic inspection, emission testing, and repair of motor vehicles pursuant to Chapter 5, Sections 44000 to 44095, of the California Health and Safety Code.
- (8) NITROGEN OXIDES (NO_x) mean the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
- (9) POTENTIAL HIGH-EMITTING VEHICLE means a vehicle that has been measured by RSD(s) to have exhaust concentration levels above the HC, CO, or NO_x (if available) cut points.
- (10) PROGRAM OPERATOR means the person that has submitted and obtained Project Plan approval pursuant to subdivision (e) to conduct a remote sensing/vehicle repair program for mobile source emission reduction credits under Rule 1605.
- (11) REMOTE SENSING DEVICE (RSD) means an electronic instrument or device that is used to remotely measure vehicle exhaust hydrocarbon, carbon monoxide, and nitrogen oxides (if available) emissions using a light beam directed perpendicularly to the path of passing vehicles.
- (12) SMOG CHECK means the emission, functional, and visual tests specified for the Motor Vehicle Inspection Program pursuant to Health and Safety Code Sections 44012 and 44013.

- (13) SMOG TEST STATION means a facility that is authorized or licensed by BAR to inspect and emission test vehicles to determine compliance with the Motor Vehicle Inspection Program requirements.
 - (14) TAMPER means to modify, remove, or disconnect vehicle emissions control components.
 - (15) VEHICLE AGE means the difference between the calendar year of the vehicle repair and the vehicle model year.
 - (16) VOLATILE ORGANIC COMPOUND (VOC) means any volatile compound of carbon; excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (d) Rule 1605 MSERC Program Requirements
- (1) In order to generate MSERCs, a program operator shall identify and repair high-emitting vehicles as follows:
 - (A) The program operator shall use RSDs to initially identify potential high-emitting vehicles using cut points of 4 percent and 0.1 percent for exhaust CO and HC, respectively. The Executive Officer may approve alternative CO and HC cut points provided that data is submitted by the program operator to the District demonstrating that these alternative cut points are at least as effective in identifying high-emitting vehicles compared to cut points of 4 percent and 0.1 percent for exhaust CO and HC, respectively.
 - (B) The program operator shall emission test vehicles identified as potential high-emitting vehicles at a Smog Test Station to determine compliance with Motor Vehicle Inspection Program requirements according to BAR90 emission test results. The program operator shall be responsible for obtaining permission to include a vehicle in the program from the vehicle owner. The program operator shall ensure that:
 - (i) the vehicle engine is at its normal operating temperature (i.e., warmed-up) at the beginning of the emission test.
 - (ii) the vehicle does not use accessory equipment which would result in an additional load on the vehicle's engine during the BAR90 emission test, such as the use of air conditioning.

- (iii) the BAR90 emission test is conducted by a person authorized by BAR to conduct such tests.
 - (iv) the emission test procedure includes BAR90 exhaust emission testing and all other procedures specified by BAR to determine compliance with Motor Vehicle Inspection Program requirements.
 - (v) the initial pre-repair BAR90 emission test is conducted on the vehicle as received, without any adjustments or modifications to the vehicle that could affect its emissions prior to performing the smog check. The initial pre-repair emission test shall be conducted with the BAR90 test equipment in manual mode (i.e., without electronic notification of test results to BAR).
- (C) The program operator shall only identify vehicles failing BAR90 2500 rpm emission testing as high-emitting vehicles, and such vehicles shall be eligible for MSERC generation.
- (D) The program operator shall ensure the vehicle repairs performed under a Rule 1605 MSERC Program are conducted only by person(s) permitted by BAR to conduct vehicle repairs under the Motor Vehicle Inspection Program. Repairs shall include all procedures necessary to bring the vehicle into compliance with Motor Vehicle Inspection Program requirements.
- (E) The program operator shall have the vehicle retested subsequent to repairs for compliance with Motor Vehicle Inspection Program requirements. The post-repair emission test shall be conducted with the BAR90 test equipment in certification mode (i.e., with electronic notification of test results to BAR).
- (2) The program operator shall not include any gasoline-powered passenger cars and light-duty trucks in the program for MSERC generation if one or more of the following occur:
 - (A) A smog check has yet to be conducted as required by law or the owner has been notified that a smog check is required as part of the DMV registration renewal process.
 - (B) The vehicle is scheduled to be smog checked due to DMV registration renewal requirements, within a three month period subsequent to its identification as a potential high-emitting vehicle.

- (C) The vehicle will be scrapped or retired as part of a local or statewide vehicle scrapping program.
 - (3) For Rule 1605 MSERC programs that utilize more than 10 smog test stations, program operators shall submit notice to the Executive Officer at least one week prior to emission testing and repairing vehicles at smog test stations, pursuant to paragraph (d)(1), indicating specific locations, dates, and times for emission testing and repair activities. The notice may be submitted either in writing or electronically. For Rule 1605 MSERC programs that utilize 10 or fewer smog test stations, the smog test facility or the program operator shall provide the Executive Officer with the projected number of vehicles to be emission tested or repaired for a specific day upon request at any time during that specific day.
 - (4) Program operators shall comply with all applicable regulations and obtain all necessary permits from applicable agencies with regard to conducting RSD measurements on public roads, and identifying and contacting vehicle owners.
- (e) Issuance of MSERCs
- (1) Rule 1605 Project Plan

At least one month prior to initial implementation of a Rule 1605 remote sensing/vehicle repair project, the Program Operator shall submit a Rule 1605 Project Plan. The Rule 1605 Project Plan shall contain the following specific information:

 - (A) description of RSD equipment, including HC, CO and NO_x (if available) cut points to be used to identify potential high-emitting vehicles pursuant to subparagraph (d)(1)(A);
 - (B) proposed RSD test locations and site configurations; and
 - (C) identification of Smog Test Station(s) to be used to test and repair high-emitting vehicles and proof of BAR certification.
 - (2) To be eligible for MSERC generation, the Rule 1605 Project Plan must be approved by the Executive Officer prior to implementation of the project.
 - (3) Rule 1605 MSERC Application

In order to generate MSERCs, the Program Operator shall submit a Rule 1605 MSERC Application for MSERCs for a vehicle not later than 6 months after a vehicle has been identified for inclusion in the program. The purpose of the Application is to document the identification and repair (if

applicable) of all vehicles identified as high-emitting vehicles. The Application shall include at a minimum:

- (A) Information Required For Repaired High-Emitting Vehicles
 - (i) make, model, model-year, and license plate number
 - (ii) name and address of each vehicle owner
 - (iii) a statement from the Program Operator verifying vehicle registration address with DMV for each vehicle
 - (iv) location of RSD site
 - (v) location of Smog Test Station corresponding to pre- and post-BAR90 emission testing and vehicle repair for each high emitting vehicle
 - (vi) a listing of pre- and post-BAR90 2500 rpm HC, CO and NOx (if applicable) concentration levels in parts per million (ppm)
 - (vii) a listing of RSD concentration levels for HC, CO, and NOx (if applicable)
 - (viii) a list of repairs required to bring vehicle into compliance with the Motor Vehicle Inspection Program
 - (ix) date of next required smog check
 - (x) mileage accumulation rate and calculated MSERCs for VOC, CO, and NOx
- (4) All MSERCs shall be issued after approval and verification as needed of the Rule 1605 MSERC Application by the Executive Officer in accordance with the MSERC calculation methodology specified in subdivision (f).
- (5) MSERCs shall expire two years after date of issuance.

(f) MSERC Calculation

- (1) The total amount of VOC, CO and NOx MSERCs generated for exhaust emission reductions when a high-emitting vehicle is repaired shall be calculated by the Executive Officer according to the following formulas:

VOC MSERCs

$$\text{MSERC} = \frac{[(63.3 \times (\text{HC}_{\text{pre}} - \text{HC}_{\text{post}})) \times (\text{Days}/365) \times \text{CF} \times \text{Mileage}]/(454 \times \text{TAF})}{1}$$

where

$$\text{MSERC} = \text{Mobile Source Emission Reduction Credits (pounds)}$$

$$\text{HC}_{\text{post}} = \text{BAR90 2500 rpm HC concentration percent in exhaust after repair.}$$

HC _{pre}	=	BAR90 2500 rpm HC concentration percent in exhaust before repair.
Days	=	Number of days between high-emitting vehicle repair date and next required smog check.
Mileage	=	Annual mileage accumulation rate according to Table 1, based on vehicle age.
TAF	=	Technical Uncertainty Adjustment Factor, for the purpose of generating credits.
CF	=	Correction factor to convert HC emissions to VOC emissions, equal to 0.9019 for catalyst equipped vehicles, and 0.9794 for non-catalyst equipped vehicles.

CO MSERCs

$$\text{MSERC} = [(11.1 \times (\text{CO}_{\text{pre}} - \text{CO}_{\text{post}})) \times (\text{Days}/365) \times \text{Mileage}] / (454 \times \text{TAF})$$

where

MSERC	=	Mobile Source Emission Reduction Credits (pounds)
CO _{post}	=	BAR90 2500 rpm CO concentration percent in exhaust after repair.
CO _{pre}	=	BAR90 2500 rpm CO concentration percent in exhaust before repair.
Days	=	Number of days between high-emitting vehicle repair date and next required smog check.
Mileage	=	Annual mileage accumulation rate according to Table 1, based on vehicle age
TAF	=	Technical Uncertainty Adjustment Factor, for the purpose of generating credits.

NO_x MSERCs

$$\text{MSERC} = [0.426 \times (\text{Days}/365) \times \text{Mileage}] / (454 \times \text{TAF})$$

where

MSERC	=	Mobile Source Emission Reduction Credits (pounds).
Days	=	Number of days between high-emitting vehicle repair date and next required smog check.
Mileage	=	Annual mileage accumulation rate according to Table 1, based on vehicle age.
TAF	=	Technical Uncertainty Adjustment Factor, for the purpose of generating credits.

- (2) The Executive Officer shall modify the MSERC calculation procedure specified in paragraph (f)(1) to provide for a improved methodology for relating BAR90 concentration measurements and actual gram per mile emissions rates, compared to the methodology contained in paragraph (f)(1), if one or both of the following occur:

- (A) the ARB develops a methodology using its existing emissions data base for relating BAR90 concentration measurements and actual gram per mile emission rates.
 - (B) the BAR90 test procedure is replaced with another test procedure by BAR as part of the Motor Vehicle Inspection Program.
- (3) The Executive Officer may update the values in Table 1 to reflect revised mileage accumulation rates used in ARB's Motor Vehicle Emission Inventory Model. In addition, the Executive Officer may approve different mileage accumulation rates other than those specified in Table 1 if the program operator provides sufficient documentation (at least three most recent years of mileage accumulation data) to the Executive Officer to justify these different rates for the specific vehicles being repaired for MSERC credit generation.

Table 1
Mileage Accumulation Rate (miles per year)

Vehicle Age	Mileage	
	Passenger Car	Light-Duty Truck
0	14,169	15,640
1	13,563	14,590
2	12,956	13,610
3	12,349	12,696
4	11,742	11,843
5	11,135	11,048
6	10,528	10,306
7	9,921	9,614
8	9,314	8,968
9	8,707	8,366
10	8,101	7,804
11	7,597	7,280
12	7,164	6,791
13	6,788	6,335
14	6,457	5,909
15	6,214	5,512
16	6,071	5,142
17	5,940	4,797
18	5,819	4,475
19	5,707	4,174
20	5,603	4,174
21	5,505	4,174
22	5,414	4,174
23	5,328	4,174
24	5,247	4,174
25	5,170	4,174
26	5,098	4,174
27	5,029	4,174
28	4,963	4,174
29	4,901	4,174
30	4,842	4,174
31	4,785	4,174
32	4,730	4,174
33	4,678	4,174
34 or more	4,628	4,174

- (4) For the purpose of calculating MSERCs pursuant to paragraph (f)(1), a Technical Uncertainty Adjustment Factor (TAF) equal to 1.2 shall be applied. The Executive Officer shall perform a

semiannual analysis to determine the appropriateness of the TAF to ensure that the MSERCs issued pursuant to paragraph (e)(4) do not exceed the actual emissions reductions generated from Rule 1605 remote sensing/vehicle repair programs, and may recommend revisions to the TAF based on information obtained from BAR and the California Air Resources Board regarding vehicle repair durability, and the effectiveness of the Motor Vehicle Inspection Program and Accelerated Vehicle Retirement Program.

(g) Use of MSERCs

- (1) MSERCs may be used for any of the following applications:
 - (A) As RECLAIM Trading Credits. The Executive Officer shall convert MSERCs to RTCs upon submission of MSERCs by the user.
 - (B) As an alternative method of compliance with any District regulations which specifically authorize the use of MSERCs.
 - (C) As an alternative method of compliance with District Regulation XI rules that have future compliance dates. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI. MSERCs must be in existence and designated as an alternative method of compliance in advance of the compliance date.
 - (D) As New Source Review (NSR) offsets for emission increases at new or modified facilities that are subject to Rule 1303 (b)(2) in accordance with the provisions of Regulation XIII. Pursuant to Rule 504, no variance or series of variances, including emergency and interim variances, shall be granted for a period in excess of 90 days from the initial granting of a variance, from a permit condition implementing a Regulation XIII offset requirement if such permit condition is based upon the use of MSERCs.
 - (E) For voluntary retirement of MSERCs for air quality benefits.
- (2) MSERCs shall only be consumed in the air basin where the vehicle is based.
- (3) In order to use MSERCs for the applications listed in subparagraph (g)(1)(C) of this subdivision, the user shall submit a compliance plan to the Executive Officer. The user of MSERCs for applications listed under subparagraph (g)(1)(B) shall also submit a compliance plan to the Executive

Officer if the District regulation specifically authorizing the use of the MSERCs does not already require a compliance plan. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of the MSERCs.

- (4) The compliance plan required in paragraph (g)(3) above shall contain the following information:
 - (A) Total MSERCs in possession;
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) The period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) A quantification of emissions that would result from noncompliance with the rule identified in subparagraph (g)(4)(B), and documentation supporting the emission quantification; and
 - (F) A demonstration that the use of MSERCs shall result in full compliance with the specific rule requirements for which the alternative method of compliance is sought.
- (5) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include:
 - (A) A listing of equipment or materials that are the source of noncompliant VOC, NO_x, or CO emissions associated with the rule identified in subparagraph (g)(4)(B).
 - (B) a description and operating conditions of equipment listed in subparagraph (g)(5)(A) or composition and rate of use of materials listed in subparagraph (g)(5)(A).
 - (C) emission rates associated with the use of equipment or materials listed in subparagraph (g)(5)(A).
 - (D) a listing of equipment or materials that would result in compliance with the rule identified in subparagraph (g)(4)(B).
 - (E) a description and operating conditions of equipment listed in subparagraph (g)(5)(D) or composition and rate of use of materials listed in subparagraph (g)(5)(D).
 - (F) emission rates associated with the use of equipment or materials listed in subparagraph (g)(5)(D).

- (6) The compliance plan shall be written on a form to be specified by the Executive Officer.
 - (7) The Executive Officer shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (8) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer has approved the compliance plan.
 - (9) The compliance plan shall be valid only for the period for which MSERCs have been submitted.
- (h) **Recordkeeping Requirements**
- Program Operators shall be required to maintain a copy of information submitted pursuant to paragraph (e)(3), and the original BAR90 vehicle inspection reports generated before and after high-emitting vehicle repair, for three years after corresponding MSERC application submittal.
- (i) **Compliance Auditing and Enforcement**
- (1) The program operator shall afford the Executive Officer access in the District to audit any files or records created to comply with recordkeeping requirements specified in subdivision (h); or the Executive Officer shall require persons receiving MSERCs under this rule to submit such records to the Executive Officer upon request.
 - (2) The program operator shall afford the Executive Officer access to inspect RSD measurement activities, as well as emission testing and vehicle repairs performed for compliance with Motor Vehicle Inspection Program requirements pursuant to subdivision (d).
 - (3) Violation of any provision of this rule, including falsification of information in the Rule 1605 Project Plan or MSERC Application, or the acceptance of vehicles for MSERC generation that have been tampered with prior to vehicle repair shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking revocation of the Rule 1605 MSERC Application, and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules.

(j) Requirements for Public Notice

Following a completeness determination of the Rule 1605 MSERC Application for the use of MSERCs as NSR offsets only, as provided in subparagraph (g)(1)(D), the Executive Officer shall:

- (1) perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERC), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) ~~post a public notice on the District public website~~~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer- and where the public may inspect the information. The notice shall provide 30 days from the date of ~~publication~~ ~~public notice~~ posting for the public to submit written comments on the preliminary decision; and
- (3) at the time ~~notice of~~ the preliminary decision is ~~published~~ posted, make available for public inspection, upon request, at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

(k) Appeal of Disapproval of MSERC Issuance

An applicant may, within 30 days of receipt of notice of disapproval, request the hearing board to hold a hearing on whether the Rule 1605 MSERC Application was properly refused.

(l) Relationship to Intercredit Trading

- (1) MSERCs generated pursuant to this rule may be converted to other denominations, as authorized by other District rules and regulations.
- (2) MSERC credit life may be adjusted, as authorized by other District rules and regulations.

ATTACHMENT F12

(Adopted January 8, 1993)(Amended January 14, 1994)
(Amended February 11, 1994)(Amended October 13, 1995)
(Amended March 8, 1996)(Amended April 11, 1997)(Amended May 9, 1997)
(Amended July 10, 1998)(Amended January 8, 1999)(Amended February 12, 1999)
(Amended December 6, 2002)(Amended July 11, 2008)
(PAR 1605 – February 12, 2019)

PROPOSED AMENDED RULE 1610. OLD-VEHICLE SCRAPPING

(a) Purpose

The purpose of this rule is to reduce motor vehicle volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter (PM) exhaust emissions by issuing mobile source emission reduction credits (MSERCs) in exchange for the scrapping of old, high emitting vehicles. Procurement of old vehicles could be accomplished by persons voluntarily giving up their vehicle for scrapping upon receiving an incentive payment. This rule provides a mechanism through which stationary source emissions and mobile source emissions can be brought into compliance with District regulations through mobile source emission reductions. Mobile source emission reduction credits (MSERCs) generated may only be applied towards compliance with designated rules with future compliance dates within District Regulation XI, Source Specific Standards; Regulation XXII, On-Road Motor Vehicle Mitigation; Regulation XIII, New Source Review; Regulation XX, Regional Clean Air Incentives Market (RECLAIM); or any other District regulations that allow the use of credits. MSERCs may not be applied towards compliance with federal requirements that do not authorize compliance through emissions trading including those promulgated by U.S. EPA as authorized under Title 42, U.S. Code Sections 7411, 7412(d), and those subsections of 7511(b) of the U.S. Code that do not authorize compliance through emissions trading. The value of these credits is based on old vehicles having, on average, at least three remaining years of useful life prior to scrapping as determined pursuant to paragraph (b)(17).

(b) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) CARB VAVR REGULATIONS means the most recent version of the Voluntary Accelerated Vehicle Retirement Regulations codified by the California Air Resources Board (CARB) as Title 13, California Code of Regulations, Chapter 13, Article 1, Sections 2601-2610.
- (2) CARBON MONOXIDE (CO) means carbon monoxide, as emitted in vehicle exhaust.
- (3) DAY means any week or weekend day including all holidays.
- (4) DISMANTLE means to punch, crush, stamp, hammer, shred, or otherwise render permanently and irreversibly incapable of functioning as originally intended, any vehicle or vehicle part.
- (5) DISMANTLER means the person or business, defined and licensed according to the requirements of the California Vehicle code and the regulations of the Department of Motor Vehicles, who dismantles or otherwise removes from service through compliance with subdivision (e) those vehicles obtained as part of a vehicle Scrapping Program.
- (6) DRIVE TRAIN PARTS are all parts associated with the drive train such as engine, drive mechanism, transmission, differential, axles and brakes.
- (7) EMISSIONS-RELATED PART means any vehicle part, which affects any regulated emissions from a motor vehicle that is subject to California or federal emissions standards. This includes, but is not limited to, those parts specified in the "Emissions-Related Parts List," adopted by the California Air Resources Board on November 4, 1977, as last amended June 1, 1990.
- (8) INSPECTION SITE means a location where a vehicle to be scrapped is inspected for compliance with functional and eligibility requirements.
- (9) MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) means credit for real, quantified emission reductions, approved by the Executive Officer, as authorized by this rule, and surplus to emission reductions required by CARB, District, and U.S. EPA regulations and the most recent District or U.S. EPA approved Air Quality Management Plan, whichever is more stringent.
- (10) NITROGEN OXIDES (NO_x) means nitrogen oxide and nitrogen dioxide, measured as nitrogen dioxide, emitted in vehicle exhaust.
- (11) OLD VEHICLE means a passenger car or a light-duty truck, which includes a pick-up truck, sports utility vehicle (SUV), van, or similar vehicle, not exceeding 8,500 pounds gross vehicular weight rating.

- (12) OLD-VEHICLE SCRAPPING PROGRAM means a voluntary program whereby cash payments or other incentives are offered to a vehicle owner to scrap their older, more polluting vehicle that is operational and still has a useful life.
 - (13) PARTICULATE MATTER (PM) means particulate matter as emitted in vehicle exhaust.
 - (14) SMOG CHECK means the motor vehicle inspection and maintenance program established by California Health and Safety Code §44000, et seq.
 - (15) SCAQMD CERTIFIED SCRAPPER (SCRAPPER) means the enterprise operator certified by the Executive Officer who conducts a vehicle scrapping program according to this rule, purchases vehicles, arranges for a vehicle's permanent removal from operation, and receives any MSERCs generated.
 - (16) SCRAPPING means the process by which a motor vehicle is permanently removed from service for the purpose of generating MSERCs.
 - (17) USEFUL LIFE means the physical condition of a vehicle proposed for retirement such that the vehicle passes the functional and equipment eligibility inspection, as defined in subdivision (g) of this regulation, and has passed the last scheduled Smog Check.
 - (18) VOLATILE ORGANIC COMPOUND (VOC) means any volatile compound of carbon, excluding: methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (c) SCAQMD Scrapper (Scrapper) Certification Requirements
- (1) Scrappers shall have vehicles dismantled only by auto dismantlers that are licensed by the California Department of Motor Vehicles (DMV), and shall include the following in the scrapping plan:
 - (A) The name and address of the California Department of Motor Vehicles licensed auto dismantler (hereafter referred to as dismantler); and
 - (B) A written statement from the dismantler under penalty of perjury certifying compliance with:
 - (i) Local water conservation regulations;
 - (ii) State, county, and city energy and hazardous materials response regulations; and

- (iii) Local water agency soil, surface, and ground water contamination regulations.
- (2) Entities intending to be certified as a Scrapper shall submit a scrapping plan to the Executive Officer at least 90 days prior to planned initiation of Rule 1610 vehicle scrapping operations. An existing scrapping plan shall remain in effect until the Executive Officer approves or disapproves a revised scrapping plan. The scrapping plan shall be submitted on forms specified by the Executive Officer, and contain specific information including, but not limited to:
 - (A) Information demonstrating the ability to comply with all provisions of this rule relating to vehicle selection, inspection, storage, destruction, disposal, and recordkeeping requirements;
 - (B) Anticipated initiation date for scrapping program. (Entities certified as Scrappers prior to December 6, 2002 shall be exempt from this requirement.);
 - (C) Description of the procedure to permanently destroy vehicle components listed in paragraph (e)(1); and
 - (D) Other information required by the Executive Officer to ensure the enforceability of the provisions of this rule.
- (3) Certification as a Scrapper shall occur with written approval of the scrapping plan by the Executive Officer. Approval of the scrapping plan shall be based on information denoted in paragraph (c)(1) and paragraph (c)(2). The Executive Officer shall have 90 days to approve or disapprove the scrapping plan and shall disapprove the scrapping plan unless it complies with paragraph (c)(1) and paragraph (c)(2). The Executive Officer shall also disapprove the scrapping plan if the additional air pollutant emissions, caused by scrapping vehicles in connection with this rule, exceed District significance thresholds.
- (4) Scrapper shall be prohibited from modifying Rule 1610 vehicle scrapping operations in a manner that is inconsistent with any information provided in the most recently submitted scrapping plan, unless the Scrapper has provided a revised scrapping plan to the District and obtained written approval from the Executive Officer prior to implementing these modifications. The Executive Officer may revoke the scrapping plan if the Scrapper fails to comply with this requirement.

(d) Notice Requirements for Scrappers

- (1) Scrappers shall submit written notice to the Executive Officer at least 14 days prior to accepting vehicles for inspection, indicating date, location, and estimated number of vehicles to be inspected. The purpose of this notice is to notify the District of acceptance dates of the vehicles at the inspection site.
- (2) Scrapper shall make reservations to accept a minimum of 15 vehicles for inspection at a specific site on a single day unless a written waiver is obtained from the District to allow fewer reservations. This waiver may be issued if the Scrapper provides written documentation to the District indicating that fewer than 15 vehicles are required to complete an existing vehicle scrapping contract. At the District's request, the Scrapper shall provide the names of vehicle owners making reservations and corresponding vehicle license plate numbers at least one week prior to accepting the vehicles for inspection.
- (3) Scrapper shall allow a minimum period of 10 days between the day the Scrapper provides a description of a vehicle, as specified under subparagraph (d)(3)(A), to the District and the day a DMV Registration 42 form (Report of Vehicle to be Dismantled and Notice of Acquisition) is transmitted to the DMV for the vehicle. During this period, if any person contacts the Scrapper and indicates an interest in purchasing the vehicle, the Scrapper shall hold the vehicle for an additional 7 days. During this extended waiting period, the Scrapper shall provide an opportunity for the interested party to examine the vehicle and, if appropriate, negotiate the sale of the vehicle or the sale of any parts. Notwithstanding the foregoing, nothing in this section places the Scrapper under any obligation to hold the vehicle for an interested party beyond the waiting period or two or more missed appointments to examine any vehicle, or to sell the vehicle or any of its parts if a mutually acceptable price cannot be negotiated.
 - (A) The Scrapper shall submit to the District a description of the vehicle including, at a minimum, the vehicle make, model year, and first eight characters of the VIN. The District will, in turn, make this information available to an appropriate segment of the public. The intent is to allow interested third parties, including car collector enthusiasts and those interested in affordable transportation, an opportunity to examine the vehicle and to negotiate with the

Scrapper the purchase of the vehicle or any of its parts pursuant to subdivision (e).

- (B) Entire vehicles and/or parts may be sold prior to entry into the program; however, no MSERCs shall be granted for any vehicle resold to the public in this manner except as authorized pursuant to subdivision (e).

(e) **Parts Recycling and Resale**

- (1) Parts recycling shall be at the sole discretion of the Scrapper subject to the limitations included herein. If the Scrapper recovers parts from a vehicle retired for the purpose of generating MSERCs, then parts recycling and resale is limited to non-emission-related and non-drive train parts. Emission-related and drive-train parts as identified in Appendix A to this regulation shall be permanently destroyed in order to qualify for MSERC generation.

- (A) After the 10 day waiting period (and additional 7 days if an appointment for inspection is made) and prior to offering non-emission and non-drive train parts for resale; the engine, emission-related parts, transmission, and drive-train parts must be removed from a vehicle used for MSERCs and destroyed by the Scrapper, or the Scrapper's duly contracted dismantler.
- (B) For the purpose of this rule, permanent destruction is the infliction of physical damage to the vehicle components to the extent that the damaged components are not rebuildable or reusable except to provide raw material (e.g., scrap metal) for recycling.
- (C) The Scrapper may elect to resell parts, provided a Quality Control Checklist such as Appendix C to Article 1 of the CARB VAVR Regulations or an equivalent checklist approved by the Executive Office containing a list of emission-related and drive train parts shall be used for recording the status of parts.
 - (i) After all emission-related and drive train parts are removed and destroyed, the Scrapper or quality control inspector shall perform an inspection of the non-emission related and non-drive train parts as well as the vehicle body.
 - (ii) Upon verification that no emission-related or drive train parts have been exchanged with the non-emission-related,

- and non-drive train parts, the Scrapper or quality control inspector shall sign the checklist.
- (iii) After the Scrapper or quality control inspector signs the checklist, the Scrapper may place the remaining non-emission parts, non-drive train parts and vehicle body in yard to be available for sale to the public.
- (2) The Scrapper shall dismantle the entire vehicle within 90 days of acquisition provided the Scrapper does not recover parts from the vehicle.
 - (A) No parts shall be removed, for sale or reuse, from any dismantled retired vehicle for the purpose of generating MSERCs. The only allowable use for any dismantled retired vehicle is as a source of scrap metal and other scrap material.
 - (B) A Scrapper may separate ferrous and non-ferrous metals from a dismantled retired vehicle to sell as scrap metal only.
 - (C) A Scrapper may sell tires and batteries from a dismantled retired vehicle to an intermediary tire/battery recycler only.
 - (i) All facilities generating or receiving waste tires shall use the services of tire hauler/recycler.
 - (ii) Battery recyclers shall be registered and licensed to handle batteries.
 - (3) No MSERCs or other compensation with public funds shall be granted for any vehicle from which emissions-related or drive train parts have been sold or reused.
 - (4) All activities associated with scrapping vehicles, including but not limited to the disposal of vehicle fluids and vehicle components, shall comply with:
 - (A) Local water conservation regulations;
 - (B) State, county, and city energy and hazardous materials response regulations; and
 - (C) Local water agency soil, surface, and ground water contamination regulations.
 - (5) Vehicles shall be stored in a separate holding area as described in paragraph (m)(1) until emission and drive train related parts listed in Appendix A have been removed for the purpose of permanent destruction.
 - (6) The scrapper may recover parts from a vehicle which is intended for resale provided the scrapper recovers and permanently destroys the emission and

drive train related parts listed in Appendix A no later than 90 days subsequent to possession of the vehicle by the Scrapper or Dismantler.

(f) **Vehicle Eligibility**

Scrapper shall ensure that old vehicles meet all of the following requirements to qualify for the generation of MSERCs:

- (1) The vehicle shall be voluntarily sold to the Scrapper for a price mutually agreed between the vehicle seller and the Scrapper.
- (2) The vehicle shall be currently registered with the DMV as an operable vehicle and shall have been so registered for at least 24 months (730 days), prior to the final sale to the Scrapper, to an address or addresses within the District.
 - (A) Smog Checks must have been performed as required by the DMV in order for the vehicle to be considered registered.
 - (B) Vehicles may also be eligible if the vehicle was placed in planned non-operational status per Vehicle Code Section 4604, et seq., for less than 60 days during the continuous 24 months registration period, provided that the vehicle is registered in full operational status and all appropriate registration fees and late penalties have been paid to the DMV, for at least 90 days immediately prior to its date of sale to the Scrapper
 - (C) Vehicles may also be eligible if the registration has lapsed for less than 181 days during the continuous 24 months, pursuant to Health and Safety Code §44094, and all appropriate registration fees and late penalties have been paid to the DMV, provided that the vehicle is registered for at least 90 days immediately prior to its date of sale to the Scrapper.
 - (D) Scrapper shall determine an individual vehicle's registration history, which shall be based on:
 - (i) Registration data for that vehicle obtained from DMV records.
 - (ii) Copies of Vehicle registration certificates may be used if clause (f)(2)(D)(i) provides inconclusive results for an individual vehicle.
 - (E) Vehicles shall not be operating under a Smog Check repair cost waiver or economic hardship extension.

- (F) A vehicle volunteered for retirement is within 60 days of its next required Smog Check inspection, shall pass the Smog Check inspection without receiving a repair cost waiver or economic hardship extension prior to acceptance by a Scrapper.
 - (G) Owners of vehicles requiring a Smog Check inspection pursuant to paragraph (f)(2)(F) shall be required to submit documentation issued by a Bureau of Automotive Repair (BAR) licensed Smog Check technician demonstrating compliance with paragraph (f)(2)(F) to the person performing the functional and equipment eligibility inspection.
 - (H) Vehicles volunteered for scrapping within the timeframe of 61 to 90 days prior to their next required Smog Check inspection, that have failed the Smog Check inspection in this timeframe, shall not be accepted by the Scrapper unless it passes the Smog Check inspection prior to being transferred to the Scrapper. The Scrapper shall verify compliance with this requirement based upon the data made available by the California Bureau of Automotive Repair to the Scrapper at least 7 days prior to the date the vehicle is sold to the Scrapper.
 - (i) With each application for the issuance of MSERCs pursuant to subdivision (k), the Scrapper shall include a list of all vehicles accepted for scrapping that are within 61 to 90 days of their next required Smog Check inspection for the purpose of compliance with paragraph (f)(2)(H). The scrapper shall provide information for each vehicle including, but not limited to, vehicle identification number (VIN); vehicle license plate number; and vehicle make, model and model year.
 - (I) Vehicles that are tampered with, pursuant to Section 3340.41.5 of Title 16, Division 33, Article 5.5 of the California Code of Regulations, shall not be eligible for acceptance into a scrapping program.
- (g) Vehicle Inspection
- In order to be eligible for MSERCs, each vehicle shall pass a functional and equipment eligibility inspection performed by the Scrapper, which is conducted at

the inspection site prior to delivery to the dismantler. Scrapper shall verify compliance with vehicle inspection requirements specified in this subdivision. Prior to conducting this inspection, the Scrapper shall verify that the person(s) delivering the vehicle to inspection site are the legal owner(s), or an authorized representative of the legal owner(s) properly empowered to perform the transaction, and that the vehicle does not have any liens. The following elements shall be included in the inspection:

- (1) Vehicle must have been driven under its own power to the inspection site. If the Scrapper and/or District personnel has knowledge prior to the inspection of a vehicle that the vehicle was towed or pushed for any portion of the trip to the inspection site, then the Scrapper shall not accept the vehicle.
- (2) Scrapper shall inspect the vehicle to ensure it meets the following equipment eligibility requirements and shall reject the vehicle for MSERC generation if the vehicle fails any of these requirements:
 - (A) All doors shall be present and in place.
 - (B) The hood shall be present and in place.
 - (C) The dashboard shall be in place.
 - (D) The windshield shall be present and in place.
 - (E) The driver's seat shall be present and in place.
 - (F) Interior pedals (flat surface attached to a lever(s) controlling the brake, clutch, and accelerator) shall be operational.
 - (G) One bumper and all side and/or quarter panels shall be present and in place.
 - (H) Vehicle drivability shall not be affected by any body, steering or suspension damage.
 - (I) Exhaust system shall be present and in place.
 - (J) One headlight, one taillight and one brake light shall be present and in place.
 - (K) One side window glass shall be present and in place.
 - (L) The vehicle shall comply with Smog Check requirements pursuant to paragraph (f)(2).
- (3) Scrapper or other person(s) designated by the Scrapper shall complete the following functional inspection requirements, and shall reject the vehicle for MSERC generation if the vehicle fails any of these requirements. Prior to implementing the functional inspection:

- (A) Turn vehicle engine off;
 - (B) Insert key, vehicle engine shall start using keyed ignition system. In addition to the keyed ignition switch, ignition or fuel kill switches may be activated if required to start engine. The vehicle must start readily through ordinary means without the use of starting fluids or external booster batteries;
 - (C) Drive the vehicle forward for a minimum of 25 feet under its own power; and
 - (D) Drive the vehicle in reverse for a minimum of 25 feet under its own power.
- (4) Scrappers shall inspect all vehicles to ensure that the functional and equipment eligibility requirements pursuant to paragraphs (g)(1) through (g)(3) are met. Scrappers shall complete and retain a certificate of functional and equipment eligibility provided in Appendix A of the CARB VAVR Regulations or an equivalent inspection checklist approved by the Executive Officer.
- (5) Vehicles failing the requirements pursuant to paragraph (g)(2) may be repaired to correct all deficiencies identified and subsequently retested by the inspector for compliance with these requirements and issued a certificate of equipment eligibility at any time.
- (6) Vehicles failing the requirements pursuant to paragraphs (g)(1) and (g)(3) may be re-tested by the inspector for compliance with these requirements and issued a Certificate of Functional Eligibility provided:
 - (A) Inoperable vehicle odometers are fixed prior to conducting this test;
 - (B) Vehicles have traveled a minimum of 50 miles subsequent to the failure determination; and
 - (C) Vehicles pass the functional eligibility inspection.
- (h) Mobile Source Emission Reduction Credits (MSERCs) Per Scrapped Vehicle
 - (1) Scrappers may generate MSERCs that can be sold on the open market.
 - (2) Scrappers may not make MSERCs available for purchase until they are approved and issued by the District.
 - (3) MSERCs shall not be issued unless a Scrapper demonstrates compliance with all applicable provisions in this rule.
 - (4) MSERCs will be issued based on data supplied by each Scrapper pursuant to subdivision (j).

- (5) MSERCs shall not be issued for any vehicle retired within sixty-one to ninety (61-90) days of its next required Smog Check inspection until the scrapper has verified that the vehicle did not fail its Smog Check inspection during that timeframe pursuant to subparagraph (f)(2)(H). MSERCs shall not be issued for any vehicle failing its Smog Check inspection during the sixty-one to ninety (61-90) day timeframe.
 - (6) MSERCs have a default lifetime of three years, provided:
 - (A) The maximum credit amount shall be no greater than the calculated emission reduction on which the credit is based;
 - (B) A discount factor may be applied to credits calculated under these regulations, consistent with applicable District and Board credit rules and programs; and
 - (C) Credit usage shall be in accordance with all federal, state, and local laws and regulations in effect at time of usage.
 - (7) MSERCs generated from vehicle scrapping activities shall be valid for five years from the date of application approval pursuant to subdivision (l), with the limitation that no more than one-third of the MSERCs may be consumed within one year from the date of approval and not more than two-thirds of the MSERCs may be consumed within two years from the date of approval.
 - (8) MSERCs shall be generated by the retirement of any vehicle for reductions of VOC, NO_x, CO and PM where the magnitude of the credit for each pollutant shall be determined by the methodology described in Appendix D of CARBs VAVR Regulation, "Calculation of Default Emission Reduction Credit".
- (i) Use of MSERCs
- (1) MSERCs may only be used for the following applications:
 - (A) As an alternative method of compliance with District rules that allow the use of MSERCs generated pursuant to this rule and such use has been approved by CARB and USEPA. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI.
 - (B) As an alternative method of compliance with District Regulation XXII rules that allow the use of MSERCs.
 - (C) For voluntary retirement of MSERCs for air quality benefits.

- (2) The discount factor shall be equal to 1.2 except that credits used as an alternative method of compliance with Regulation XXII shall be quantified using a discount factor equal to 1.0.
- (3) An entity using MSERCs in accordance to subparagraph (i)(1)(A) shall demonstrate to the Executive Officer that emissions at the entity's facility are not subject to Risk Reduction Requirements pursuant to Rule 1402, or use of MSERCs will not result in adverse change in attainment of risk reduction requirements under Rule 1402.
 - (A) In order to use MSERCs in lieu of compliance with an emission limitation in a Regulation XI rule, as authorized in subparagraph (i)(1)(A), an entity must establish that:
 - (i) Use of MSERCs does not result in NO_x emissions greater than or equal to 200 pounds per day, from those portable internal combustion engines where MSERCs will be used, where portable internal combustion engines are defined pursuant to Rule 1110.2.
 - (ii) NO_x emissions from those portable internal combustion engines where MSERCs will be used, will not cause an exceedance of the state nitrogen dioxide ambient air quality standard.
 - (B) In order to use MSERCs in lieu of compliance with an emission limitation in a Regulation XI rule as authorized in subparagraph (i)(1)(A), an entity must demonstrate that:
 - (i) Use of MSERCs will not result in an increase or forgone reduction in carcinogenic health risk greater than 1×10^{-5} or Hazard Index greater than 1 for all substances listed in Rule 1402; the assessment of health risk shall be conducted in accordance with guidance used in implementing Rules 1401 - New Source Review of Carcinogenic Air Contaminants and 1402 - Control of Toxic Air Contaminants from Existing Sources;
 - (ii) Use of MSERCs will not result in a Significant Risk Level, in accordance with Rule 1402, when the increased carcinogenic health risk or Hazard Index as determined pursuant to Rule 1402 are added to the total facility risk for

those facilities that were required to prepare a health risk assessment pursuant to the criteria in Rule 1402; and

- (iii) Use of MSERCs will not cause a significant increase in an air quality concentration as determined using the methodology as set forth in Rule 1303, Table A-2 of Appendix A.
 - (5) MSERCs may only be transferred as permitted by Regulations XX or XXII, except Scrappers that are not subject to either District Regulation XI or Rule 1301(b)(2) may also transfer MSERCs to other entities that were Scrappers as of the date the MSERCs were generated.
 - (6) MSERCs shall only be consumed within the jurisdictional boundaries of the SCAQMD.
- (j) Recordkeeping and Auditing Requirements
- (1) Scrappers shall maintain a copy of the scrapping plan described in subdivision (c) and the notices given pursuant to subdivision (d) for five years following termination of vehicle scrapping.
 - (2) The following information shall also be collected and maintained in written records by the Scrapper for five years following termination of vehicle scrapping, and be made available to District personnel upon request:
 - (A) Starting and ending dates of the old-vehicle scrapping program;
 - (B) Number of vehicles scrapped;
 - (C) Dates vehicles were inspected;
 - (D) Dates vehicles were scrapped;
 - (E) Complete name, address, and telephone number of the person conducting the old-vehicle scrapping program;
 - (F) Complete name, address, and telephone number of the dismantler and any program subcontractors;
 - (G) A detailed description of project organizational structure and logistical arrangements, including location(s) of collection and disposal facilities, and scrapping procedure including disposal procedures for all vehicle components and fluids; and
 - (H) Smog Check documentation pursuant to paragraphs (f)(2)(E) through (f)(2)(H).
 - (3) Scrappers shall be responsible for storing and maintaining computer accessible data records of scrapped vehicles.

- (4) The computer hardware, software, and communications protocol, to be used for storing and maintaining computer accessible data records, shall be specified by the Executive Officer for compatibility with existing District computer related equipment.
- (5) Data records for each vehicle dismantled and used to generate MSERCs shall include the following:
 - (A) Vehicle make;
 - (B) Vehicle model;
 - (C) Vehicle model-year;
 - (D) Vehicle license plate number;
 - (E) Vehicle identification number (VIN);
 - (F) Vehicle odometer reading;
 - (G) Name, address, and telephone number of legal owner selling vehicle to the Scrapper;
 - (H) Name, address, and telephone number of registered owner if different from subparagraph (j)(5)(G);
 - (I) Date of purchase of vehicle by the Scrapper;
 - (J) Date of vehicle retirement;
 - (H) Date of inspection;
 - (I) Date of scrapping;
 - (J) VOC, NO_x, CO, and PM MSERC;
 - (K) Name of person(s) conducting vehicle inspection, as required by subdivision (g), with employer's name, address, and telephone number;
 - (L) Reproductions of California Certificate of Title and registration, as signed-off by the seller at time of final sale to the Scrapper;
 - (M) Reproduction of the applicable certificate of functional and equipment eligibility;
 - (N) Reproduction of the applicable Notice to Dismantler (report of vehicle to be dismantled and notice of acquisition,) (California Department of Motor Vehicles Registration 42 form);
 - (O) Reproduction of written documentation from the DMV verifying that a vehicle meets the requirements of subdivision (f);
 - (P) If applicable, reproduction of documentation issued pursuant to subparagraph (f)(2)(G); and
 - (Q) Any other pertinent data requested by the Executive Officer.

- (6) Data records shall be made accessible to the Executive Officer for a minimum of five years subsequent to the issuance of MSERCs for each scrapped vehicle.
- (8) Scrapper shall maintain copies of the information listed in subparagraph (k)(5)(A) through (k)(5)(K) for a period of five years, and shall make them available to the District upon request.
- (9) Announced and unannounced audits and on-site inspections of Vehicle Scrapping Programs may be conducted to ensure that the programs are being operated according to all applicable rules and regulations.
 - (A) Scrappers and their subcontractors shall allow the district to conduct announced and unannounced audits and inspections and shall cooperate fully.
- (k) Issuance of MSERCs
 - (1) Scrappers shall submit an application to the Executive Officer at least once every six months following certification as a Scrapper. The purpose of the application is to document the number of vehicles scrapped and MSERCs earned during the six month period, and demonstrate compliance with rule requirements. If no vehicles are scrapped for a period of two consecutive years, the scrapping plan shall be deemed expired. A new scrapping plan shall be submitted after this two year period to reinitiate vehicle scrapping operation pursuant to Rule 1610.
 - (2) The application shall contain the following information for each six month period:
 - (A) Data records pursuant to paragraph (k)(5), in an electronic format for the vehicles scrapped; and
 - (B) Total MSERCs claimed for scrap program period.
 - (3) MSERCs shall be issued after the Executive Officer has approved the application pursuant to paragraph (l)(1). In addition, for those vehicles procured on or after February 1, 2003, the Executive Officer shall not issue MSERCs unless emission-related and drive train parts listed in paragraph (e)(1) have been permanently destroyed. The application shall be disapproved unless it demonstrates the Scrapper has complied with all applicable provisions in this regulation, as determined by the Executive Officer.

- (4) For the purposes of assessing fees, the application shall be deemed a plan, and the fees shall be assessed in accordance with the provisions of Rule 306.
 - (5) The application, including data records specified in subdivision (k), shall be stored by the Executive Officer for a minimum of five years.
- (l) **Compliance Plan**
 - (1) In order to use MSERCs for the application listed in subparagraph (i)(1)(A), the user shall submit a Rule 1610 compliance plan to the Executive Officer. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of the MSERCs.
 - (2) The compliance plan shall contain the following information:
 - (A) Total MSERCs (attach certificates);
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) Period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) Quantification of emissions that would result from noncompliance with the rule identified in subparagraph (l)(2)(B), and documentation supporting the emissions quantification.
 - (i) This quantification shall be performed using District Governing Board approved quantification methodologies.
 - (ii) The Executive Officer shall submit this rule and associated quantification methodologies to U.S. EPA for inclusion into the State Implementation Plan.
 - (3) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include, but is not limited to:
 - (A) A listing of equipment and/or materials that are the source of noncompliant VOC, NO_x, CO, or PM emissions associated with the rule identified in subparagraph (l)(2)(B).
 - (B) A description and operating conditions of equipment listed in subparagraph (l)(3)(A) and/or composition and rate of use of materials listed in subparagraph (m)(3)(A).
 - (C) Emission rates associated with the use of equipment and/or materials listed in subparagraph (l)(3)(A).

- (D) A listing of equipment and/or materials that would result in compliance with the rule identified in subparagraph (1)(2)(B).
 - (E) A description and operating conditions of equipment listed in subparagraph (1)(3)(D) and/or composition and rate of use of materials listed in subparagraph (1)(3)(D).
 - (F) Emission rates associated with the use of equipment and/or materials listed in subparagraph (1)(3)(D).
- (4) The compliance plan shall be written on a form to be specified by the Executive Officer.
 - (5) The Executive Officer shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (6) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer has approved the compliance plan.
 - (7) The user must renew the compliance plan prior to the expiration of the MSERCs upon which the plan is based.
 - (8) The compliance plan, including supporting documentation, shall be stored by the Executive Officer for a minimum of five years.
- (m) Compliance Auditing and Enforcement
- (1) Vehicles accepted for scrapping, in the absence of District enforcement personnel, shall be held at the auto dismantling site where the vehicle is volunteered for scrapping for a holding period of three calendar days subsequent to the day in which the vehicle is accepted by the Scrapper from the vehicle owner. The vehicle shall be made available to District enforcement personnel to determine compliance with requirements specified for functional and equipment eligibility inspection of vehicle components and shall be held in a holding area dedicated for the storage of these vehicles. District enforcement personnel shall be allowed to conduct any test required by Rule 1610 or direct the Scrapper (or a person designated by the Scrapper) to conduct these tests.
 - (2) The Executive Officer may audit any files and/or records created to comply with recordkeeping requirements.

- (3) The Executive Officer shall reserve the right to inspect facilities, including dismantlers, for compliance with the requirements specified in this rule. District inspectors shall be afforded immediate access to inspection/dismantling facilities on request.
- (4) Violation of any provision of this rule or the contents of any scrapping plan shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking revocation of the compliance plan (as appropriate), and shall constitute a citable violation and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules. In addition, rejection of vehicles by District enforcement personnel due to noncompliance with Rule 1610 during the three day holding period at the auto dismantling facility shall result in non-issuance of MSERCs for the failing vehicle and may result in the issuance of a Notice of Violation(s). The scrapping plan shall be revoked if the Scrapper demonstrates a recurrent pattern of accepting disqualified vehicles while implementing a Rule 1610 scrapping program.

(n) Requirements for Public Notice

Following a completeness determination of the scrapping plan for the use of MSERCs as NSR offsets only, the Executive Officer shall:

- (1) Perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERCs), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) Post a public notice on the District public website ~~Publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information. The notice shall provide 30 days from the date of ~~publication~~ public notice posting for the public to submit written comments on the preliminary decision; and
- (3) Make available for public inspection, upon request, at the District office, at the time ~~notice of~~ the preliminary decision is ~~published publicly noticed posted~~, the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets

shall be maintained in accordance with Section 6254.7 of the Government Code.

(o) **Appeal of Disapproval of MSERC Issuance**

An applicant may, within 30 days of receipt of notice of disapproval, request the Hearing Board to hold a hearing on whether the scrapping application was properly evaluated.

(p) **Advertising**

(1) Any advertising conducted by the Scrapper for the purpose of recruiting vehicle owners to sell their vehicles into the scrapping program shall not contain any language stating that the scrapping is anything but voluntary for the consumer or that the scrapping is affiliated with or is operated by the State of California or the District.

(A) Any contracts or agreements between a vehicle seller and a Scrapper relating to the sale of a vehicle to a Scrapper shall not contain any language stating that the scrapping is anything but voluntary for the consumer or that the old vehicle scrapping program is affiliated with or is operated by the State of California or the District.

(2) Any Scrapper requesting the DMV to send notices to vehicle owners as prospective scrapping participants pursuant to Health and Safety Code §44103, shall meet the following requirements:

(A) Prominently display the disclaimer statement as follows: “This voluntary old vehicle scrapping program is conducted by a private operator under the auspices of the State of California and the District. It is not operated by the State of California or the District. State or the District funds are not used for the purchase of vehicles. Emission reduction credits may be purchased by the State or the District for air quality improvements. Your participation is entirely voluntary.”

(B) Provide the DMV with adequate criteria for selecting those registered vehicle owners who own the desired target vehicles-which may consist of vehicle makes, models, model years, geographical locales, or any other criteria deemed acceptable or necessary by the DMV.

APPENDIX A**EMISSION-DRIVE TRAIN RELATED PARTS LIST**

(The following list of components are examples of emission related parts as will be defined in Section 1900 (b) (3), Chapter 3, Title 13, California Code of Regulations)

I. CARBURETION AND AIR INDUCTION SYSTEM**A. Air Induction System:**

1. Temperature sensor elements
2. Vacuum motor for air control
3. Hot air duct & stove
4. Air filter housing & element
5. Turbocharger or supercharger
6. Intercooler

B. Emission Calibrated Carburetors:

1. Metering jets
2. Metering rods
3. Needle and seat
4. Power valve
5. Float circuit
6. Vacuum break
7. Choke mechanism
8. Throttle-control solenoid
9. Deceleration valve
10. Dashpot
11. Idle stop solenoid, anti-dieseling assembly
12. Accelerating pump
13. Altitude compensator

C. Mechanical Fuel Injection:

1. Pressure regulator
2. Fuel injection pump
3. Fuel injector
4. Throttle-position compensator
5. Engine speed compensator
6. Engine temperature compensator
7. Altitude cut-off valve
8. Deceleration cut-off valve
9. Cold-start valve

D. Continuous Fuel Injection:

1. Fuel pump
2. Pressure accumulator
3. Fuel filter
4. Fuel distributor
5. Fuel injections
6. Air-flow sensor
7. Throttle-position compensator
8. Warm-running compensator
9. Pneumatic overrun compensator
10. Cold-start valve

E. Electronic Fuel Injection:

1. Pressure regulator
2. Fuel distribution manifold
3. Fuel injectors
4. Electronic control unit
5. Engine speed sensor
6. Engine temperature sensor
7. Throttle-position sensor
8. Altitude/manifold-pressure sensor
9. Cold-start valve

F. Air Fuel Ratio Control:

1. Frequency valve
2. Oxygen sensor
3. Electronic control unit

G. Intake Manifold

II. IGNITION SYSTEM

A. Distributor

1. Cam
2. Points
3. Rotor
4. Condenser
5. Distributor cap
6. Breaker plate
7. Electronic components (breakerless or electronic system)

- B. Spark Advance/Retard System:
 - 1. Centrifugal advance mechanism:
 - a. Weights
 - b. Springs
 - 2. Vacuum advance unit
 - 3. Transmission controlled spark system:
 - a. Vacuum solenoid
 - b. Transmission switch
 - c. Temperature switches
 - d. Time delay
 - e. CEC valve
 - f. Reversing relay
 - 4. Electronic spark control system:
 - a. Computer circuitry
 - b. Speed sensor
 - c. Temperature switches
 - d. Vacuum switching valve
 - 5. Orifice spark advance control system:
 - a. Vacuum bypass valve
 - b. OSAC (orifice spark advance control) valve
 - c. Temperature control switch
 - d. Distributor vacuum control valve
 - 6. Speed controlled spark system:
 - a. Vacuum solenoid
 - b. Speed sensor and control switch
 - c. Thermal vacuum switch
- C. Spark Plugs
- D. Ignition Coil
- E. Ignition Wires

III. MECHANICAL COMPONENTS

A. Valve Trains:

1. Intake valves
2. Exhaust valves
3. Valve guides
4. Valve springs
5. Valve seats
6. Camshaft

B. Combustion Chamber:

1. Cylinder head or rotor housing¹
2. Piston or rotor¹

IV. EVAPORATIVE CONTROL SYSTEM

A. Vapor Storage Canister and Filter

B. Vapor Liquid Separator

C. Filler Cap

D. Fuel Tank

E. Canister Purge Valve

V. POSITIVE CRANKCASE VENTILATION SYSTEM

A. PCV Valve

B. Oil Filler Cap

C. Manifold PCV Connection Assembly

VII. EXHAUST GAS RECIRCULATION SYSTEM

A. EGR Valve:

1. Valve body and carburetor spacer
2. Internal passages and exhaust gas orifice

¹ Rotary (Wankel) engines only

B. Driving Mode Sensors:

1. Speed sensor
2. Solenoid vacuum valve
3. Electronic amplifier
4. Temperature-controlled vacuum valve
5. Vacuum reducing valve
6. EGR coolant override valve
7. Backpressure transducer
8. Vacuum amplifier
9. Delay valves

VIII. AIR INJECTION SYSTEM

A. Air Supply Assembly:

1. Pump
2. Pressure relief valve
3. Pressure-setting plug
4. Pulsed air system

B. Distribution Assembly:

1. Diverter, relief, bypass, or gulp valve
2. Check or anti-backfire valve
3. Deceleration control part
4. Flow control valve
5. Distribution manifold
6. Air switching valve

C. Temperature sensor

IX. CATALYST, THERMAL REACTOR, AND EXHAUST SYSTEM

A. Catalytic Converter:

1. Constricted fuel filler neck
2. Catalyst beads (pellet-type converter)
3. Ceramic support and monolith coating (monolith-type converter)
4. Converter body and internal supports
5. Exhaust manifold

B. Thermal Reactor:

1. Reactor casing and lining
2. Exhaust manifold and exhaust port liner

C. Exhaust System:

1. Manifold
2. Exhaust port liners
3. Double walled portion of exhaust system
4. Heat riser valve and control assembly

X. MISCELLANEOUS ITEMS USED IN ABOVE SYSTEMS

1. Hoses, clamps, and pipers
2. Pulleys, belts, and idlers

XI. COMPUTER CONTROLS

1. Electronic Control Unit (ECU)
2. Computer-coded engine operating parameter (including computer chips)
3. All sensors and actuators associated with the ECU

XII. DRIVE TRAIN PARTS (ADDED TO EMISSION-RELATED PARTS LIST)

1. Engine
2. Drive mechanism
3. Transmission
4. Differential
5. Axles
6. Brakes

ATTACHMENT F13

(Adopted September 8, 1995)(Amended July 10, 1998)
(PAR 1612 – February 12, 2019)

PROPOSED AMENDED RULE 1612. CREDITS FOR CLEAN ON-ROAD VEHICLES

(a) Purpose

The purpose of this rule is to provide opportunities to generate NOx, VOC, CO, PM, and SOx mobile source emission reduction credits (MSERC) that could be used as an alternative means of compliance with District regulations. These credits would be generated based on voluntary emission reductions created by the operation of low- or zero-emission on-road vehicles within the boundaries of the District that result in emission reductions beyond those required by local, state and federal regulations.

(b) Applicability

This voluntary rule becomes effective January 1, 1996 and applies to passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles which are registered and operated in the District, and optional emission standards have been specified in ARB's Mobile Source Credit Guidelines. References to ARB's Mobile Source Credit Guidelines or Title 13, California Code of Regulations correspond to the versions of the applicable guidelines/regulations which are in effect at the time of initial application for MSERCs.

(c) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) **BASELINE EMISSION STANDARDS** mean the applicable ceiling emission standards, baseline vehicle emissions, or certification emission standard of the original vehicle (if retrofitted) for light-, medium-, or heavy-duty vehicles or engines pursuant to ARB's Mobile Source Credit Guidelines.
- (2) **CERTIFIED CONVERSION KIT** means any alternative fuel or add-on hardware conversion (retrofit) kit which has been certified by the ARB to meet the heavy-duty vehicle optional emission standards specified in Title 13, California Code of Regulations. For light- and medium-duty vehicles,

certified conversion kit means any alternative fuel or add-on hardware conversion (retrofit) kit which has been certified by the ARB to meet one of the low-emission vehicle standards as specified in Title 13, California Code of Regulations.

- (3) CLEAN FUEL means any fuel for which the vehicle or engine was certified to an optional emission standard.
- (4) CLOSED FUELING SYSTEM means an onboard vehicular emission control system that completely eliminates evaporative emissions under any and all possible operational modes and conditions.
- (5) CONVERSION FACTOR means the multiplicative factor used to convert grams per brake horsepower-hour (g/bhp-hr) into grams per mile (g/mi).
- (6) DUAL-FUEL VEHICLE means a vehicle that is engineered and designed to be capable of operating on gasoline or diesel and on compressed natural gas or liquefied petroleum gas, with separate fuel tanks for each fuel onboard the vehicle.
- (7) ENGINE LIFE means the period of use (in miles) to which a given engine must comply with its certification emission standards, pursuant to ARB regulations specified in Title 13, California Code of Regulations. For new heavy-duty engines, the engine life shall be equal to the engine's useful life, pursuant to Title 13 California Code of Regulations. For retrofitted heavy-duty engines, the engine life shall be equal to miles remaining until the engine is next expected to be overhauled, or the expiration of the engine's original useful life, whichever occurs first.
- (8) EVAPORATIVE EMISSIONS means VOCs emitted into the atmosphere from a vehicle, other than exhaust and crankcase emissions.
- (9) EXTENDED ENGINE LIFE means the period of use (in miles) after a major engine overhaul during which a given engine must comply with its certification emission standards as specified by the vehicle operator. The extended engine life shall be not be greater than the engine's original useful life, pursuant to Title 13 California Code of Regulations.
- (10) FUEL-FLEXIBLE VEHICLE means any methanol-fueled or ethanol-fueled vehicle that is engineered and designed to be operated using any gasoline-methanol or gasoline-ethanol fuel mixture or blend.
- (11) LOW-EMISSION VEHICLE means a light- or medium- duty vehicle that is certified by the ARB to one of the low- emission standards as specified in Title 13, California Code of Regulations, or a heavy-duty vehicle that is

equipped with an engine certified by ARB to one of the optional emission standards as specified in Title 13, California Code of Regulations.

- (12) MAJOR ENGINE OVERHAUL means a complete rebuilding of a low-emission vehicle engine such that the engine is returned to a condition that is equivalent in operation, durability, and emissions performance to the originally certified engine, by cleaning, adjustment, repair, and major component replacement of the engine which are considered to be beyond routine maintenance procedures.
- (13) MARKETING EMISSIONS means VOC emissions emitted into the atmosphere from the transport of gasoline or other fuels used to power on-road vehicles, from the fuel's point of origin to the vehicle refueling site, occurring within the South Coast Air Quality Management District.
- (14) MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) means credits for real, quantified emission reductions in accordance with the Air Resources Board's Mobile Source Credit Guidelines, approved by the Executive Officer or designee, that can be used to comply with District Regulations pursuant to subdivision (g), and are surplus to emission reductions required by ARB, District, or U.S. EPA regulations.
- (15) NITROGEN OXIDES (NO_x) mean the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
- (16) OPTIONAL EMISSION STANDARDS mean the applicable vehicle or engine certification emission standards, as specified by ARB's Mobile Source Credit Guidelines, which are more stringent than the baseline emission standard.
- (17) REPOWER means to replace the existing on-road heavy-duty vehicle engine with an engine certified to meet one of the optional emission standards.
- (18) RETROFIT means a hardware modification to an existing heavy-duty engine, according to the most recent version of ARB's California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for Motor Vehicles Certified for 1994 and Subsequent Model years and for All Model Year Motor Vehicle Retrofit Systems Certified For Emission Reduction Credit (ARB Retrofit Procedures), that results in compliance with one of the ARB's optional emission standards. For light- and medium-duty vehicles, retrofit means a hardware modification to an existing vehicle, according to ARB Retrofit Procedures, that results in

compliance with one of the low-emission vehicle standards as specified in Title 13, California Code of Regulations.

- (19) **VEHICLE LIFE** means the period of use (in miles) during which a given vehicle must comply with its certification emission standards, pursuant to ARB regulations specified in Title 13, California Code of Regulations. For retrofitted passenger cars, light-duty trucks, and medium-duty vehicles, the vehicle life shall be equal to the useful life of the vehicle, according to Title 13 California Code of Regulations minus the actual vehicle odometer reading upon retrofit. The vehicle life for zero-emission vehicles shall be the period of time beginning when the vehicle is first placed in operation for the purpose of generating MSERCs and extending until the zero-emission vehicle is permanently retired.
- (20) **VEHICLE OPERATOR** means any entity who leases for at least one year or owns on-road vehicles, and controls the operation of on-road vehicles within the boundaries of the District.
- (21) **VOLATILE ORGANIC COMPOUND (VOC)** means any volatile compound of carbon; excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (22) **ZERO-EMISSION VEHICLE (ZEV)** means any vehicle which produces zero emissions of any criteria pollutants under any and all possible operational modes and conditions.

(d) **Vehicle Operator Requirements**

In order to generate MSERCs, a vehicle operator shall:

- (1) implement one or more of the following projects that result in exhaust, evaporative, or marketing loss emission reductions surplus to those required by ARB, District and U.S. EPA regulations:
 - (A) operation of new heavy-duty vehicles powered with engines certified to optional emission standards.
 - (B) operation of repowered heavy-duty vehicles with engines certified to optional emission standards.
 - (C) operation of passenger cars, light-duty trucks, medium-duty vehicles, and heavy-duty vehicles, retrofitted to comply with optional emission standards using certified conversion kits, and using manufacturer approved facilities for the installation of the

certified conversion kits ("manufacturer" refers to the certified conversion kit manufacturer). (In such projects MSERCs shall be issued only after ARB certification of the conversion kit to meet one of the optional emission standards. MSERC applications may be processed concurrently with pending ARB certification of the conversion kit.)

- (D) operation of zero-emission vehicles, where operation of the light-duty zero-emission vehicles will not be used by any vehicle manufacturer for current or future compliance with its fleet average non-methane organic gas emission standards as specified in Title 13, California Code of Regulations, or for compliance with any vehicle manufacturer's zero-emission vehicle production commitments contained in its Memorandum of Agreement with the California Resources Board.
 - (E) operation of new low- or zero-emission passenger cars, light-duty trucks, medium-duty vehicles, or heavy-duty vehicles that results in evaporative and marketing loss emission reductions. (MSERCs from exhaust emission reductions are excluded from this operation.)
- (2) for projects which begin operation after rule effective date, submit an On-Road MSERC Application, as specified in subdivision (e), within 90 days subsequent to initial operation of each low-emission vehicle.
 - (3) for projects which begin operation prior to rule adoption, submit an On-Road MSERC Application, as specified in subdivision (e) within one year of the rule effective date.
 - (4) following approval of the On-Road MSERC Application, demonstrate the operation of the low- or zero-emission vehicle to the satisfaction of the Executive Officer or designee by submitting the actual vehicle miles traveled (VMT) for the six-month period following the initial service date, and the projected VMT for the subsequent six-month period.
 - (5) annually renew the MSERCs by submitting the actual VMT for each preceding twelve-month period and the projected VMT for each subsequent six-month period.
 - (6) notify the Executive Officer or designee in writing within 90 days following retirement of the low- or zero-emission vehicle, or removal of the vehicle from service for an engine replacement or a major engine overhaul. For a major engine overhaul, such notification shall specify the extended engine

life. The vehicle operator shall ensure that engine replacements and major engine overhauls are performed in accordance with specifications and procedures required by the engine or retrofit system manufacturer(s). The operator shall also be responsible for maintaining the engine and any retrofit systems within manufacturer(s)' specifications throughout the engine life.

(e) On-Road MSERC Application

- (1) In order to obtain MSERCs, a vehicle operator shall submit an On-Road MSERC Application. The purpose of the Application is to document the purchase, retrofit, or repowering as well as the operation of the low- or zero-emission vehicle(s) following the initial service date. The On-Road MSERC Application shall contain specific information including, but not limited to:
 - (A) a description of the repowering, retrofitting, or purchasing project, including, at a minimum, the vehicle and engine model and model year, vehicle identification number, number of miles accumulated on the vehicle and engine (not applicable for new vehicle purchases), and applicable baseline and optional emission standards;
 - (B) proof of purchase or lease for the low- or zero-emission vehicle/engine or certified conversion kit purchase;
 - (C) the initial service date of each low- or zero-emission vehicle;
 - (D) identification of the legal owner of the MSERCs to be issued by the Executive Officer or designee; and
 - (E) intended use of MSERCs pursuant to subdivision (h), if known.
- (2) The Executive Officer or designee shall approve or disapprove the On-Road MSERC Application in writing.
- (3) For the purposes of assessing fees, the On-Road MSERC Application shall be deemed a plan, and the fees shall be assessed in accordance with the provisions of Rule 309.

(f) Issuance of MSERCs

- (1) MSERCs shall be issued after approval of the On-Road MSERC Application by the Executive Officer or designee and upon submittal and verification by the Executive Officer or designee of the actual and projected VMT for each low- or zero emission vehicle as specified in paragraphs (d)(4) and (d)(5) and in accordance with the MSERC calculation

methodology specified in subdivision (g). For projects involving purchasing prior to rule adoption, MSERCs shall be issued based only on the operation of the low- or zero-emission vehicles which occur following the submittal of the On-Road MSERC Application.

- (2) For projects involving the purchase of low- or zero emission vehicles after adoption of the rule, MSERCs shall be issued by the Executive Officer or designee based on continued demonstration of the actual operation of each low- or zero-emission vehicle. This demonstration shall start when the vehicle is first placed into service, and shall end at the end of the vehicle life, engine life, or extended engine life. The demonstration shall also end when the vehicle is retired or removed from service for an engine replacement.
- (3) For projects involving the purchase of low- or zero emission vehicles prior to the adoption of the rule, MSERCs shall be issued by the Executive Officer or designee based on continued demonstration of the actual operation of each low- or zero-emission vehicle. This demonstration shall start when the On-Road MSERC Application is submitted to the District, and shall end at the end of the vehicle life, engine life, or extended engine life. The demonstration shall also end when the vehicle is retired or removed from service for an engine replacement.
- (4) For all projects, MSERCs shall be issued by the Executive Officer or designee:
 - (A) for NO_x, VOC, CO, and PM in accordance with paragraph (g)(1), if optional emission standards have been specified in the ARB's Mobile Source Credit Guidelines, or if compliance with applicable optional emission standards can be demonstrated as approved by the Executive Officer or designee in consultation with the ARB according to ARB's certification test methods.
 - (B) for VOC, in accordance with paragraph (g)(2), for evaporative and marketing emission reductions resulting from the use of non-volatile fuels or closed fueling systems.
 - (C) for SO_x, in accordance with paragraph (g)(3), for emission reductions resulting from the use of low-sulfur fuels.
- (5) If a heavy-duty engine is overhauled, MSERCs shall be issued based on continued demonstration of the actual operation of each low- emission vehicle during the extended engine life.

(g) MSERC Calculation

- (1) The total amount of NO_x, CO, VOC, and PM MSERCs generated for exhaust emission reductions when a strategy specified in subparagraphs (d)(1)(A) through (d)(1)(F) is implemented shall be calculated by the Executive Officer or designee for each year according to the following formulas.

- (A) For chassis certified passenger cars, light-duty trucks, and medium-duty vehicles:

$$\text{MSERC} = [(S_{\text{base}} - S_{\text{opt}}) \times \text{ML}] / (454 \times \text{DF})$$

where

MSERC = Mobile source emission reduction credits (pounds per year)

S_{base} = Baseline emission standards (or certification emission standard of original vehicle if retrofitted) (grams per mile).

S_{opt} = The applicable optional emission standard for passenger cars, light- and medium-duty vehicles (grams per mile)

ML = Annual VMT in the South Coast Air Quality Management District while operating on clean fuel.

DF = Discount factor, for the purpose of generating credits, equal to 1.0.

- (B) For engine certified medium- and heavy-duty vehicles:

$$\text{MSERC} = [(S_{\text{base}} \times \text{CF}_1) - (S_{\text{opt}} \times \text{CF}_2)] \times \text{ML} / (454 \times \text{DF})$$

where

MSERC = Mobile source emission reduction credit (pounds per year)

S_{base} = Baseline emission standards (or certification emission standard of original vehicle if retrofitted) g/bhp-hr).

S_{opt} = The applicable optional emission standards for engines used in medium- and heavy-duty vehicles (g/bhp-hr)

CF_1 = Conversion factor associated with the fuel used to power an engine certified to the S_{base} emission standard (bhp-hr/mile)

CF₂ = Conversion factor associated with the fuel used to power an engine that has certified to the S_{Opt} emission standard (bhp-hr/mile)

ML = Annual VMT in the South Coast Air Quality Management District while operating on clean fuel.

DF = Discount factor, for the purpose of generating credits, equal to 1.0.

- (2) VOC MSERCs issued for evaporative and marketing emissions, when a strategy specified in paragraph (d)(1) is implemented, shall be calculated by the Executive Officer or designee according to the following formula:

$$\text{MSERC} = (\text{EVP} + \text{ME}) \times (\text{ML}/\text{VL}) \times (1/\text{DF})$$

where

MSERC = Mobile source emission reduction credit (pounds per year)

EVP = Lifetime evaporative emission reduction (pounds)

ME = Lifetime marketing emission reductions (pounds)

ML = Annual VMT (miles/year)

VL = Vehicle life (miles)

DF = Discount factor, for the purpose of generating credits, equal to 1.0.

Lifetime evaporative and marketing emissions needed to quantify MSERCs pursuant to this paragraph shall be obtained from the Executive Officer or designee.

- (3) MSERCs issued for SO_x emission reductions when a strategy specified in paragraph (d)(1) is implemented shall be calculated by the Executive Officer or designee according to the following formula:

$$\text{MSERC} = 2 \times ((F_{\text{base}} \times S_{\text{base}}) - (F_{\text{opt}} \times S_{\text{opt}}))/\text{DF}$$

where

MSERC = Mobile source emission reduction credits (pounds per year)

F_{base} = Amount of fuel used to power (applicable) vehicle certified to baseline emission standard (gallons or standard cubic feet per year).

- S_{base} = Sulfur concentration in fuel used to power (applicable) vehicle certified to baseline emission standard (pounds per gallon or pounds per standard cubic foot).
- F_{opt} = Amount of fuel used to power vehicle certified to optional emission standard (gallons or standard cubic feet per year)
- S_{opt} = Sulfur concentration in fuel used to power vehicle certified to optional emission standard (pounds per gallon or pounds per standard cubic foot).
- DF = Discount factor, for the purpose of generating credits, equal to 1.0.

S_{base} and S_{opt} shall be obtained from the Executive Officer or designee and shall be representative of average sulfur concentrations for applicable fuels within the boundaries of the District. F_{base} and F_{opt} shall be submitted by the vehicle operator at the same time that annual VMTs are submitted to the Executive Officer or designee pursuant to paragraphs (d)(4) and (d)(5).

- (4) For all projects,
- (A) the MSERCs for the first year after the initial service date shall be calculated by the Executive Officer or designee based on the actual VMT for the six-month period following the initial service date and the projected VMT for the subsequent six-month period. For projects involving the purchase of low- or zero-emission vehicles prior to rule adoption, the initial service date shall be the submittal date of the On-Road MSERC Application.
 - (B) The projected VMT shall not be 50% greater than the actual vehicle miles traveled for the previous six-month period unless the vehicle operator provides documentation to the District that the projected VMT shall occur, as approved by the Executive Officer or designee.
 - (C) The MSERCs shall be adjusted to reflect the difference between the projected VMT reported in the previous year and the actual VMT for the same period.
- (5) MSERCs for dual-fueled vehicles or fuel-flexible vehicles shall be based on the VMT resulting from operation of the vehicle on the clean fuel.
- (6) MSERCs shall expire two years after the date of issuance.

(h) Use of MSERCs

- (1) MSERCs may be used for any of the following applications:
 - (A) As RECLAIM Trading Credits. The Executive Officer or designee shall convert MSERCs to RTCs upon submission of MSERCs by the user.
 - (B) As an alternative method of compliance with District Regulation XI rules that have future compliance dates. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI. MSERCs must be in existence and designated as an alternative method of compliance in advance of the compliance date.
 - (C) As an alternative method of compliance with District Regulation XXII rules that allow the use of MSERCs in accordance with Regulation XXII.
 - (D) As New Source Review (NSR) offsets for emission increases at new or modified facilities that are subject to Rule 1303 (b)(2) in accordance with the provisions of Regulation XIII. Pursuant to Rule 504, no variance or series of variances, including emergency and interim variances, shall be granted for a period in excess of 90 days from the initial granting of a variance, from a permit condition implementing a Regulation XIII offset requirement if such permit condition is based upon the use of MSERCs.
 - (E) For voluntary retirement of MSERCs for air quality benefits.
 - (F) As an alternative method of compliance with any District regulations which specifically authorize the use of MSERCs.
- (2) For the purpose of using MSERCs pursuant to subparagraphs (h)(1)(A) and (h)(1)(B), a discount factor equal to 1.2 shall be applied except for MSERCs generated by the (1) operation of post 1992 model-year vehicles that are certified at or below ultra-low-emission standards; (2) operation of compressed natural gas (CNG), liquefied petroleum gas (LPG), or methanol heavy-duty engines certified to optional emission standards or operation of CNG, LPG, or methanol heavy-duty vehicles certified to optional emission standards using ARB certified conversion kits; or (3) operation of zero-emission vehicles. For other uses pursuant to paragraph (h)(1), a discount

factor equal to 1.0 shall be applied unless specified otherwise in District regulations.

- (3) MSERCs shall only be consumed in the air basin where the vehicle operator is based.
- (4) In order to use MSERCs for the applications listed in subparagraph (1)(B) of this subdivision, the user shall submit a compliance plan to the Executive Officer or designee. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of the MSERCs.
- (5) The compliance plan shall contain the following information:
 - (A) Total MSERCs (attach certificates)
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) The period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) A quantification of emissions that would result from noncompliance with the rule identified in subparagraph (h)(5)(B), and documentation supporting the emission quantification.
- (6) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include, but is not limited to:
 - (A) A listing of equipment or materials that are the source of noncompliant VOC, NO_x, CO, PM, or SO_x emissions associated with the rule identified in subparagraph (h)(5)(B).
 - (B) a description and operating conditions of equipment listed in subparagraph (h)(6)(A) or composition and rate of use of materials listed in subparagraph (h)(6)(A).
 - (C) emission rates associated with the use of equipment or materials listed in subparagraph (h)(6)(A).
 - (D) a listing of equipment or materials that would result in compliance with the rule identified in subparagraph (h)(5)(B).
 - (E) a description and operating conditions of equipment listed in subparagraph (h)(6)(D) or composition and rate of use of materials listed in subparagraph (h)(6)(D).
 - (F) emission rates associated with the use of equipment or materials listed in subparagraph (h)(6)(D).

- (7) The compliance plan shall be written on a form to be specified by the Executive Officer or designee.
 - (8) The Executive Officer or designee shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (9) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer or designee has approved the compliance plan.
 - (10) The user must renew the compliance plan prior to the expiration of the MSERCs upon which the plan is based.
- (i) Recordkeeping Requirements
- (1) Low- or zero-emission vehicle operators shall be responsible for storing and maintaining data records for each low- or zero-emission vehicle which generates MSERCs. For each low- or zero-emission vehicle, the data records shall include vehicle miles traveled per calendar year in the South Coast Air Quality Management District (for dual-fuel or fuel-flexible vehicles, miles traveled per year on clean fuel), maintenance and repair records, and any other necessary data as specified by the Executive Officer or designee.
 - (2) Low- or zero-emission vehicle operators shall maintain a copy of the data records described in paragraph (i)(1) for the two most recent years of operation for each low- or zero-emission vehicle which generates MSERCs.
- (j) Compliance Auditing and Enforcement
- (1) The Executive Officer or designee shall be afforded access in the District to audit any files or records created to comply with recordkeeping requirements specified in subdivision (i) or require vehicle operators to submit such records to the Executive Officer or designee upon request.
 - (2) The Executive Officer or designee shall be afforded access to inspect low- or zero-emission vehicles at vehicle operators' facilities. The Executive Officer or designee may require emissions testing at a designated emission test facility, at the District's expense, to determine compliance with Rule 1612 requirements for the generation of MSERCs.

- (3) Violation of any provision of this rule, including falsification of information in the On-Road MSERC application or annual operating data, shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking revocation of the On-Road MSERC application, and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules.

(k) Requirements for Public Notice

Following a completeness determination of the On-Road MSERC Application for the use of MSERCs as NSR offsets only, as provided in subparagraph (h)(1)(D), the Executive Officer or designee shall:

- (1) perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERC), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) post a public notice on the District public website ~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information. The public notice shall provide 30 days from the date of ~~publication~~ public notice posting for the public to submit written comments on the preliminary decision; and
- (3) at the time ~~notice of~~ the preliminary decision is ~~published~~ posted, make available for public inspection, upon request, at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

(l) Appeal of Disapproval of MSERC Issuance

An applicant may, within 30 days of receipt of notice of disapproval, request the hearing board to hold a hearing on whether the application was properly refused.

ATTACHMENT F14

(Adopted September 8, 1995)(Amended July 10, 1998)
(PAR 1620 – February 12, 2019)

PROPOSED AMENDED RULE 1620. CREDITS FOR CLEAN OFF-ROAD MOBILE EQUIPMENT

(a) Purpose

The purpose of this rule is to provide opportunities to generate NO_x, VOC, CO, PM, and SO_x mobile source emission reduction credits (MSERCs) that can be used as an alternative means of compliance with District regulations. These credits would be generated based on voluntary emission reductions created by the operation of low- or zero-emission off-road equipment within the jurisdiction of the District that result in emission reductions beyond those required by local, state, and federal regulations.

(b) Applicability

This voluntary rule becomes effective January 1, 1996 and applies to any off-road mobile equipment or vehicle for which emission standards have been adopted by the ARB or U.S. EPA and for which optional emission standards have been specified in the ARB's Mobile Source Credit Guidelines. The equipment and vehicles subject to this rule are used primarily off the highways to propel, move, or draw persons or property in construction, commercial, industrial, mining, agricultural, or forestry applications within the boundaries of the District and include equipment such as dozers, loaders, tractors, scrapers, graders, off-highway trucks, forklifts, and utility service vehicles. This rule does not apply to utility and lawn and garden equipment, off-road motorcycles, all-terrain vehicles, go-karts, golf carts, marine vessels, aircraft and locomotives. References to the ARB's Mobile Source Credit Guidelines correspond to the version of the applicable guidelines which are in effect at the time of initial application for MSERCs.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) BASELINE EMISSION STANDARDS means the ceiling emission standards for off-road mobile equipment engines pursuant to the ARB's

Mobile Source Credit Guidelines, or the actual emission level of the existing off-road mobile equipment pursuant to paragraph (d)(6). For spark-ignition Otto-cycle internal combustion engines, hydrocarbon (HC), carbon monoxide (CO), and NO_x emissions shall not exceed the most stringent District, ARB, or U.S. EPA baseline emission standard requirements applicable for the type of engine and the year in which the engine is being used to generate credits. For these engines, the baseline emission standards for VOC and NO_x shall be based on the combined VOC+NO_x emission standard prorated by certification emission values of each pollutant provided by ARB.

- (2) CERTIFIED ENGINE means an ARB-certified engine or an off-road engine which has been upgraded to the configuration of an ARB-certified on-road engine in accordance with the ARB's Mobile Source Credit Guidelines.
- (3) CERTIFIED CONVERSION KIT means any alternative fuel or add-on hardware conversion (retrofit) kit which has been certified by ARB to meet the optional emission standards in accordance with the ARB's Mobile Source Credit Guidelines.
- (4) EQUIPMENT means any self-propelled off-road mobile equipment or vehicle which is targeted for repowering, retrofitting, or permanent replacement.
- (5) EQUIPMENT OPERATOR means any entity who leases for at least one year or owns off-road mobile equipment, and controls the operation of off-road mobile equipment within the boundaries of the South Coast Air Quality Management District.
- (6) LOAD FACTOR means the ratio of the engine power output during typical operating conditions to the engine rated horsepower.
- (7) LOW-EMISSION EQUIPMENT means equipment utilizing ARB-certified engines or conversion kits, or which has been retrofitted to meet one of the optional emission standards.
- (8) MAJOR ENGINE OVERHAUL means a complete rebuilding of a low-emission equipment engine such that the engine is returned to a condition that is equivalent in operation, durability, and emissions performance to the originally certified engine or conversion kit, by cleaning, adjustment, repair, and major component replacement of the engine which are considered to be beyond routine maintenance procedures.

- (9) **MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC)** means real, quantified emission reductions in accordance with the ARB's Mobile Source Credit Guidelines, approved by the Executive Officer or designee, that can be used to comply with District Regulations pursuant to subdivision (g), and are surplus to emission reductions required by U.S. EPA, ARB or District regulations.
- (10) **NITROGEN OXIDES (NO_x)** means the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
- (11) **NON-POLLUTING ALTERNATIVES** means methods or processes which are used to replace existing off-road equipment and do not directly generate any air pollution.
- (12) **OPTIONAL EMISSION STANDARDS** means the applicable equipment engine emission standards, as specified by the ARB's Mobile Source Credit Guidelines, which are more stringent than the baseline emission standard. Zero-emission equipment and non-polluting alternatives shall be assigned an optional emission standard of zero grams per brake horsepower-hour.
- (13) **PERMANENT REPLACEMENT** means to permanently remove existing off-road equipment which has been in continuous active operation from service, such that the equipment will not be operated within the District, and to replace it with non-polluting alternatives. Equipment which is scrapped, or permanently relocated or sold outside the District, and is demonstrated not to be brought back or sold back into the District, will be considered to be permanently removed.
- (14) **REPOWER** means to replace the existing off-road equipment engine with a certified engine to meet one of the optional emission standards.
- (15) **RETROFIT** means to modify the existing off-road equipment engine with a certified conversion kit to meet one of the optional emission standards. Retrofit may also mean to modify the existing off-road equipment with on-road emission control technologies, tested in accordance with the ARB's test procedures for off-road equipment engines specified in Title 13, California Code of Regulations, to meet one of the optional emission standards, subject to the approval of the Executive Officer or designee in consultation with the ARB.
- (16) **USEFUL LIFE** means the life (in hours) that the equipment retrofitted with alternative fuel conversion kits is expected to meet one of the optional

emission standards and is equivalent to the durability period of the certified conversion kit.

- (17) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon; excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (18) ZERO-EMISSION EQUIPMENT means any equipment which produces zero emissions of any criteria pollutants under any and all possible operational modes and conditions.

(d) Equipment Operator Requirements

In order to generate MSERCs, an equipment operator shall:

- (1) implement one or more of the following projects: purchase new low- or zero-emission equipment; or repower, retrofit, or permanently replace existing equipment to meet one of the optional emission standards. Equipment using alternative-fuel or add-on hardware retrofit kits shall become eligible for credit generation once ARB has approved applicable certification procedures and the retrofit kit is ARB-certified to meet an optional emission standard.
- (2) for projects involving permanent replacement,
 - (A) submit an Off-Road MSERC Application, as specified in subdivision (e), within 90 days of the completion of any permanent replacement which occurs after rule effective date. For projects involving permanent replacement completed prior to rule effective date, the equipment operator shall submit an Off-Road MSERC Application, as specified in subdivision (e), within one year of the rule effective date.
 - (B) annually renew the MSERCs by notifying the Executive Officer or designee in writing of the continued operation of the non-polluting alternative one year following the approval of the Off-Road MSERC Application and every year thereafter.
- (3) for projects not involving permanent replacement,
 - (A) submit an Off-Road MSERC Application, as specified in subdivision (e), within 90 days subsequent to the initial service date of the low- or zero-emission equipment, for projects involving purchasing, repowering, or retrofitting after rule effective date.

- (B) submit an Off-Road MSERC Application, as specified in subdivision (e), within one year subsequent to rule effective date, for projects involving purchasing prior to rule effective date.
 - (C) following approval of the Off-Road MSERC Application, demonstrate the operation of the low- or zero-emission equipment to the satisfaction of the Executive Officer or designee by submitting the actual operating hours for the six-month period from the initial service date, and the projected operating hours for the subsequent six-month period.
 - (D) annually renew the MSERCs by submitting the actual operating hours for each preceding twelve-month period and the projected operating hours for each subsequent six-month period.
 - (E) verify that the operation of new, repowered, or retrofitted equipment shall not increase emissions of other pollutants, including VOC, CO, PM, and smoke beyond the standards specified in Title 13, California Code of Regulations.
- (4) notify the Executive Officer or designee in writing within 90 days following retirement of the low- or zero-emission equipment or the non-polluting alternative or removal of the equipment from service for an engine replacement or a major engine overhaul. The equipment operator shall ensure that engine replacements and major engine overhauls are performed in accordance with specifications and procedures required by the engine and/or conversion kit manufacturer(s). The equipment operator shall also be responsible for maintaining the engines or conversion kits, meeting optional emission standards, within manufacturer(s)' specifications throughout the credit life.
 - (5) use only manufacturer approved facilities for the installation of certified conversion kits ("Manufacturer" refers to the certified conversion kit manufacturer).
 - (6) in lieu of using baseline emission standards specified in the ARB's Mobile Source Credit Guidelines, submit emissions test data in accordance with ARB's applicable test procedures and protocols to demonstrate the actual emission level of the existing equipment, subject to the approval of the Executive Officer or designee in consultation with the ARB. The maximum baseline emission levels allowable for credit when using actual emissions

level testing procedures for piston-type diesel internal combustion engines are as follows.

- (A) Engines greater than 50 horsepower (hp) but less than 117 hp shall not exceed NO_x emissions of 10.5 grams per brake-horsepower-hour (g/bhp-hr).
- (B) Engines greater than or equal to 117 hp but less than 400 hp shall not exceed NO_x emissions of 10.0 g/bhp-hr.
- (C) Engines greater than or equal to 400 hp shall not exceed NO_x emissions of 7.0 g/bhp-hr.

(e) Off-Road MSERC Application

- (1) In order to obtain MSERCs, an equipment operator shall submit an Off-Road MSERC Application. The purpose of the Application is to document the purchase, retrofit, repowering or permanent replacement project as well as the operation of the low- or zero-emission equipment or the non-polluting alternative following the initial service date. The Off-Road MSERC Application shall contain specific information including, but not limited to:
 - (A) a description of the repowering, retrofitting, purchasing or permanent replacement project, including at minimum the equipment type, equipment and engine manufacturer, equipment and engine model, engine model year, equipment identification number, or any non-polluting alternative methods or processes which will be used;
 - (B) proof of purchase or lease of the low- or zero-emission equipment or non-polluting alternative, and proof of purchase for certified engines and conversion kits;
 - (C) the initial service date of each low- or zero-emission equipment or the non-polluting alternative;
 - (D) for projects involving permanent replacement, historical records of annual operating hours and fuel consumption for the existing equipment which is permanently replaced, and proof of permanent replacement to the satisfaction of the Executive Officer or designee;
 - (E) load factor for each low-emission equipment supported by actual fuel consumption data;

- (F) emission test results for existing off-road mobile equipment from equipment operators seeking to establish baseline emission standard based on actual emission levels;
 - (G) written statement from the equipment operator to verify that the Repowering, retrofitting, or upgrading of existing off-road equipment engine was conducted in accordance with engine or conversion kit manufacturer's specifications and procedures;
 - (H) identification of the legal owner of the MSERCs to be issued by the Executive Officer or designee; and
 - (I) intended use of MSERCs pursuant to subdivision (h), if known.
- (2) For projects involving retrofit kits not certified to an optional emission standard, the Off-Road MSERC application may be processed concurrently with pending ARB action to approve the retrofit kit and shall become eligible for credit generation pursuant to paragraph (d)(1).
 - (3) The Executive Officer or designee shall approve or disapprove the Off-Road MSERC Application in writing.
 - (4) For the purposes of assessing fees, the Off-Road MSERC Application shall be deemed a plan, and the fees shall be assessed in accordance with the provisions of Rule 309.
- (f) Issuance of MSERCs
- (1) For projects not involving permanent replacement, MSERCs shall be issued after approval of the Off-Road MSERC Application by the Executive Officer or designee and upon submittal and verification by the Executive Officer or designee of the actual and projected operating hours for each low- or zero-emission equipment as specified in paragraph (d)(3) and in accordance with the MSERC calculation methodology specified in subdivision (g). For projects involving purchasing prior to rule effective date, MSERCs shall be issued based only on the operation of the low- or zero-emission equipment which occurs following the submittal of the Off-Road MSERC Application.
 - (2) For projects involving permanent replacement, MSERCs shall be issued upon approval of the Off-Road MSERC Application by the Executive Officer or designee and submittal and verification by the Executive Officer or designee of the annual written notifications of the continued operation of the non-polluting alternative as specified in paragraph (d)(2) and in

accordance with the MSERC calculation methodology specified in subdivision (g). For projects involving permanent replacement prior to rule effective date, MSERCs shall be issued based only on the operation of the non-polluting alternative which occurs following the submittal of the Off-Road MSERC Application.

- (3) For all projects, MSERCs shall be issued by the Executive Officer or designee:

- (A) for NO_x, VOC, CO, and PM, in accordance with paragraph (g)(1), if mandatory emission standards have been adopted by the ARB or U.S. EPA, and optional emission standards have been specified in the ARB's Mobile Source Credit Guidelines, or if compliance with applicable optional emission standards can be demonstrated, according to ARB's certification test methods, as approved by the Executive Officer or designee in consultation with the ARB; and
- (B) for SO_x, in accordance with the MSERC calculation methodology specified in paragraph (g)(2).

- (4) For all projects, MSERCs shall be issued by the Executive Officer or designee based on continued demonstration of the actual operation of each low- or zero-emission equipment or non-polluting alternative. This demonstration shall start when the equipment or non-polluting alternative is first placed into service, but shall end when the equipment or non-polluting alternative is retired or removed from service for an engine replacement. However, for projects involving purchasing or permanent replacement prior to rule effective date, MSERC generation shall start when the Off-Road MSERC Application is submitted. In addition, MSERC generation shall start for equipment using retrofit kits when MSERC eligibility requirements pursuant to paragraph (d)(1) are satisfied, and MSERC generation shall end when the useful life of the kit expires.

(g) **MSERC Calculation**

- (1) The total amount of NO_x, VOC, CO, and PM MSERCs generated when an equipment is permanently replaced, repowered, retrofitted, or when a new low- or zero-emission equipment is purchased shall be calculated by the Executive Officer or designee for each year according to the following formula:

$$\text{MSERC} = [(S_{\text{base}} - S_{\text{opt}}) \times (\text{HRS} \times \text{HP} \times \text{LF})] / (454 \times \text{DF})$$

where:

MSERC = Mobile source emission reduction credits per unit (pounds per year)

S_{base} = Baseline emission standards (grams/bhp-hr)

S_{opt} = Optional emission standards (grams/bhp-hr) for repowered, retrofitted, or new equipment engine

HRS = Annual hours of operation, as specified in paragraph (g)(2)

HP = Rated horsepower (hp)

LF = Load factor

DF = Discount factor, for the purpose of generating credits, equal to 1.0.

Equipment operators should contact the District or ARB to confirm the applicable baseline and optional emission standards before submitting the Off-Road MSERC Application.

- (2) MSERCs issued for SO_x emission reductions shall be calculated by the Executive Officer or designee according to the following formula:

$$\text{MSERC} = 2 \times ((F_{\text{base}} \times S_{\text{base}}) - (F_{\text{opt}} \times S_{\text{opt}})) / \text{DF}$$

where

MSERC = Mobile source emission reduction credits (pounds per year)

F_{base} = amount of fuel used to power equipment targeted for repowering, retrofitting, or permanent replacement (gallons or standard cubic feet per year)

S_{base} = sulfur concentration in fuel used to power equipment targeted for repowering, retrofitting, or permanent replacement (pounds per gallon or pounds per standard cubic foot)

F_{opt} = amount of fuel used to power low-emission equipment (gallons or standard cubic feet per year)

S_{opt} = sulfur concentration in fuel used to power low-emission equipment (pounds per gallon or pounds per standard cubic foot)

DF = Discount factor, for the purpose of generating credits, equal to 1.0.

S_{base} and S_{opt} shall be obtained from the Executive Officer or designee and shall be representative of average sulfur concentrations for applicable fuels used within the boundaries of the District. F_{base} and F_{opt} shall be submitted by the equipment operator at the same time that annual operating hours are submitted to the Executive Officer or designee pursuant to paragraphs (d)(2) or (d)(3).

- (3) For projects not involving permanent replacement,
 - (A) the MSERCs for the first year after initial service date shall be calculated by the Executive Officer or designee based on the actual operating hours for the six-month period following the initial service date and the projected operating hours for the subsequent six-month period. For projects involving purchasing prior to rule effective date, the initial service date shall be the submittal date of the Off-Road MSERC Application.
 - (B) for all subsequent years, the MSERCs shall be based on the actual operating hours for each preceding twelve-month period and the projected operating hours for each subsequent six-month period. The projected operating hours shall not be 50% greater than the actual operating hours for the previous six-month period unless the equipment operator can demonstrate to the satisfaction of the Executive Officer or designee that the projected operating hours shall occur.
 - (C) the MSERCs shall be adjusted every year to reflect any difference between the projected operating hours reported in the previous year and the actual operating hours for the same period.
- (4) For projects involving permanent replacement, MSERCs shall be calculated by the Executive Officer or designee based on historical records of operating hours of the replaced equipment. For the first year, MSERCs shall be issued upon approval of the Off-Road MSERC Application. For all subsequent years, MSERCs shall be issued upon submittal of written notification of the continued operation of the non-polluting alternative. For

projects involving permanent replacement prior to rule effective date, the initial service date shall be the submittal date of the Off-Road MSERC Application.

- (5) MSERCs shall expire two years after the date of issuance.

(h) Use of MSERCs

- (1) MSERCs may be used for any of the following applications:

- (A) As RECLAIM Trading Credits. The Executive Officer or designee shall convert MSERCs to RTCs upon submission of MSERCs by the user.
- (B) As an alternative method of compliance with District Regulation XI rules that have future compliance dates. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI. MSERCs must be in existence and designated as an alternative method of compliance in advance of the compliance date.
- (C) As an alternative method of compliance with District Regulation XXII rules that allow the use of MSERCs.
- (D) As New Source Review (NSR) offsets for emission increases at new or modified facilities that are subject to Rule 1303 (b)(2) in accordance with the provisions of Regulation XIII. Pursuant to Rule 504, no variance or series of variances, including emergency and interim variances, shall be granted for a period in excess of 90 days from the initial granting of a variance, from a permit condition implementing a Regulation XIII offset requirement if such permit condition is based upon the use of MSERCs.
- (E) For voluntary retirement of MSERCs for air quality benefits.
- (F) As an alternative method of compliance with any District regulations which specifically authorize the use of MSERCs.

- (2) For the purpose of using MSERCs pursuant to subparagraphs (h)(1)(A) and (h)(1)(B), a discount factor equal to 1.2 shall be applied except that a discount factor of 1.0 shall be applied for operation of zero-emission equipment. For other uses pursuant to paragraph (h)(1), a discount factor equal to 1.0 shall be applied unless specified otherwise in District regulations.

- (3) MSERCs shall only be consumed in the air basin where the equipment operator is based.
- (4) In order to use MSERCs for the applications listed in subparagraph (1)(B) of this subdivision, the user shall submit a compliance plan to the Executive Officer or designee. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of MSERCs.
- (5) The compliance plan shall contain the following information:
 - (A) Total MSERCs (attach certificates);
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) The period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) A quantification of emissions that would result from noncompliance with the rule identified in subparagraph (h)(5)(B), and documentation supporting the emissions quantification.
- (6) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include, but is not limited to:
 - (A) a listing of equipment or materials that are the source of noncompliant VOC, NO_x, CO, PM, or SO_x emissions associated with the rule identified in subparagraph (h)(5)(B).
 - (B) a description and operating conditions of equipment listed in subparagraph (h)(6)(A) or composition and rate of use of materials listed in subparagraph (h)(6)(A).
 - (C) emission rates associated with the use of equipment or materials listed in subparagraph (h)(6)(A).
 - (D) a listing of equipment or materials that would result in compliance with the rule identified in subparagraph (h)(5)(B).
 - (E) a description and operating conditions of equipment listed in subparagraph (h)(6)(D) or composition and rate of use of materials listed in subparagraph (h)(6)(D).
 - (F) emission rates associated with the use of equipment or materials listed in subparagraph (h)(6)(D).
- (7) The compliance plan shall be written on a form to be specified by the Executive Officer or designee.

- (8) The Executive Officer or designee shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (9) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer or designee has approved the compliance plan.
 - (10) The user must renew the compliance plan prior to the expiration of MSERCs upon which the plan is based.
- (i) Recordkeeping Requirements
 - (1) Equipment operators shall be responsible for storing and maintaining data records for each low- or zero-emission equipment which generates MSERCs. The data records shall contain operating data (monthly hour-meter logs obtained from non-resettable hour-meters), fuel consumption data (monthly fuel usage logs), maintenance and repair records, and any other necessary data.
 - (2) Equipment operators shall maintain a copy of data records described in paragraph (i)(1) for the two most recent years of operation for each low- or zero-emission equipment which generates MSERCs.
- (j) Compliance Auditing and Enforcement
 - (1) The Executive Officer or designee shall be afforded access in the District to audit any files or records created to comply with recordkeeping requirements, specified in subdivision (i), or require equipment operators to submit such records to the Executive Officer or designee upon request.
 - (2) The Executive Officer or designee shall be afforded access upon request to inspect the low- or zero-emission equipment, or non-polluting alternative at equipment operators' facilities. The Executive Officer or designee may require emissions testing at a designated emission test facility, at the District's expense, to determine compliance with Rule 1620 requirements for the generation of MSERCs.
 - (3) Violation of any provision of this rule, including falsification of information in the Off-Road MSERC Application or annual operating data shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking

revocation of the Off-Road MSERC Application, and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules.

(k) Requirements for Public Notice

Following a completeness determination of the Off-Road MSERC Application for the use of MSERCs as NSR offsets only, as provided in subparagraph (h)(1)(D), the Executive Officer or designee shall:

- (1) perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERCs), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) post a public notice on the District public website ~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer and where the public may inspect the information. The public notice shall provide 30 days from the date of ~~publication~~ public notice posting for the public to submit written comments on the preliminary decision; and
- (3) at the time ~~notice of~~ the preliminary decision is ~~published~~ posted, make available for public inspection, upon request, at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

(l) Appeal of Disapproval of MSERC Issuance

An applicant may, within 30 days of receipt of notice of disapproval, request the hearing board to hold a hearing on whether the Off-Road MSERC Application was properly refused.

ATTACHMENT F15

(Adopted May 10, 1996)
(PAR 1310 – February 12, 2019)

PROPOSED AMENDED RULE 1623. CREDITS FOR CLEAN LAWN AND GARDEN EQUIPMENT

(a) Purpose

The purpose of this rule is to provide opportunities to generate NOx, VOC, CO, and PM mobile source emission reduction credits (MSERCs) that can be used as an alternative means of compliance with District regulations, as well as promote the purchase of low-polluting equipment and the early retirement of older, high-polluting equipment. These credits would be generated based on voluntary emission reductions within the District that are beyond those required by local, state, and federal regulations.

(b) Applicability

This rule applies to any lawn & garden equipment for which emission standards have been adopted by the ARB. The equipment subject to this rule includes lawn mowers, edgers, trimmers, blowers, vacuums, tillers, shredders, grinders, chainsaws, riding mowers, and garden tractors.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) EQUIPMENT means any lawn and garden implement which is targeted for replacement, scrapping, or purchasing.
- (2) EQUIPMENT LIFE means the time period, in years, in which new lawn and garden equipment is expected to operate.
- (3) EXISTING EQUIPMENT means any equipment which has been operated in the Basin for at least one year, and has remaining useful life.
- (4) LAWN AND GARDEN EQUIPMENT means any implement which is designed to be used in lawn, garden, turf, and general landscape maintenance, and whose engine has been identified as having to meet the California emission standards found in California's Utility and Lawn and Garden Emission Regulation.

- (5) **LOW-EMISSION EQUIPMENT** means lawn and garden equipment purchased or delivered for sale prior to January 1, 1999, that utilizes ARB-certified engines which meet California's 1999 and later emission standards as specified in Title 13, California Code of Regulations.
 - (6) **MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC)** means real, quantified emission reductions in accordance with the ARB's Mobile Source Credit Guidelines, approved by the Executive Officer or designee, that can be used to comply with District Regulations pursuant to subdivision (h), and are surplus to emission reductions required by U.S. EPA, or ARB regulations.
 - (7) **NITROGEN OXIDES (NO_x)** means the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
 - (8) **REMAINING USEFUL LIFE** is the number of years until an existing piece of equipment is removed from service, and shall be based on the difference between the age of the equipment and the expected equipment life.
 - (9) **SCRAPPING** means to permanently remove existing lawn and garden equipment from service.
 - (10) **VOLATILE ORGANIC COMPOUND (VOC)** is any volatile compound of carbon; excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
 - (11) **ZERO-EMISSION EQUIPMENT** means any equipment which produces zero emissions of any criteria pollutants under any and all possible operational modes and conditions.
- (d) **Requirements**
- (1) In order to generate MSERCs, a person shall implement either (1)(A) or (1)(B) below.
 - (A) **Replacement of Existing Lawn and Garden Equipment**
 - (i) Before January 1, 1999, permanently scrap and replace existing lawn and garden equipment with new equipment which meets the 1995 California emission standards for Utility and Lawn and Garden Engines (Option 1).
 - (ii) Before and after January 1, 1999, permanently scrap and replace existing lawn and garden equipment with

new low- or zero-emission lawn and garden equipment (Option 2).

(B) Direct Sale of New Low- or Zero-Emission Equipment
(Option 3)

- (i) After May 10, 1996 and prior to January 1, 1999, direct sale to an end user of new low-emission lawn and garden equipment.
- (ii) On or after January 1, 1991, direct sale to an end user of new zero-emission equipment.

- (2) All actions initiated under this subdivision shall require a minimum of 100 units of lawn and garden equipment. No minimum shall apply in cases where the Executive Officer or designee determines that the minimum of 100 should be lowered because the amount of MSERCs that a facility needs is less than the number of MSERCs generated when 100 units of lawn and garden equipment are scrapped and replaced.
- (3) Only one unit of each equipment type per residence shall be collected for permanent replacement. No limit shall apply for commercial users of existing equipment. Commercial users submitting their equipment for collection and scrapping must supply proof of business operation in the Basin for at least one year prior to 1995 or 1999 for equipment replaced pursuant to subparagraph (d)(1)(A).
- (4) All persons seeking MSERCs under this rule shall submit a Rule 1623 Project Plan, as specified in subdivision (e), at least one month prior to implementing any action described in this subdivision.
- (5) The Executive Officer or designee shall receive at least two weeks written notice prior to implementing projects described in subparagraph (d)(1)(A) indicating date(s), location(s) and approximate numbers and types of equipment to be scrapped.

(e) Issuance of MSERCs

(1) Rule 1623 Project Plan

In order to generate MSERCs, a person shall submit a Rule 1623 Project Plan. The Rule 1623 Project Plan shall contain the following specific information:

- (A) identification of the specific option(s) selected for generating MSERCs; and

- (B) a description of the collection and screening process for the scrapping of existing lawn and garden equipment (applicable for options described in subparagraph (d)(1)(A)), including the location of scrapping sites, and procedures to verify the operability of equipment to be scrapped; and
 - (C) a description of equipment to be provided as a replacement unit including equipment type, manufacturer, model number, and engine horsepower rating; and
 - (D) a description of the process to permanently render equipment engines inoperable according to subdivision (f), applicable for equipment volunteered for scrapping.
- (2) In order for the project to be eligible for MSERC generation, the Rule 1623 Project Plan must be approved by the Executive Officer or designee prior to implementation of the project.
- (3) **Lawn and Garden MSERC Application**
In order to generate MSERCs, a person shall submit a Lawn and Garden MSERC Application. The purpose of the Application is to document the scrapping and replacement of lawn and garden equipment, or direct sale of low- or zero-emitting equipment, pursuant to subparagraphs (d)(1)(A) and (d)(1)(B). The Application shall contain specific information including:
- (A) **Proof of Replacement and Sale**
 - (i) Pursuant to subparagraph (d)(1)(A), proof of replacement of scrapped equipment with new low- or zero-emission equipment in the Basin meeting California Emission Standards for Utility and Lawn and Garden Engines (the proof of replacement shall include the seller's name and address, purchaser's name and address, purchase date, equipment type, manufacturer, and engine model number or equivalent information determined by the Executive Officer or designee);
 - (ii) Pursuant to subparagraph (d)(1)(B), sales records of new low- or zero-emission equipment in the Basin meeting California Emission Standards for Utility and Lawn and Garden Engines (the proof of sales shall include the seller's name and address, purchase date, equipment type, manufacturer, and engine model number or equivalent

information as determined by the Executive Officer or designee);

- (B) For each piece of equipment scrapped: date of scrapping, equipment type, and engine model number; and
 - (C) classification of each piece of equipment scrapped and/or purchased in terms of residential or commercial application.
- (4) For the purposes of assessing fees, the Lawn and Garden MSERC Application shall be deemed a plan, and the fees shall be assessed in accordance with the provisions of Rule 309.
 - (5) All MSERCs shall be issued after approval of the Lawn and Garden MSERC Application by the Executive Officer or designee and in accordance with the MSERC calculation methodology specified in subdivision (g).
 - (6) MSERCs shall be designated for use on a per year basis for the number of years as specified in Table 1. Residential sales or purchases shall use the years specified as residential, while sales or purchases to commercial users shall be based on the years referenced as commercial.
 - (7) MSERCs shall expire two years after the year they were designated for use.
 - (8) The Executive Officer may revise the number of years specified in Table 1 to reflect new information on equipment life or remaining useful life.
- (f) **Rendering Engines Inoperable**
- Engines shall be rendered permanently inoperable by drilling a hole through the engine block. Alternative, equally effective procedures for permanently rendering engines inoperable shall be allowed, as approved by the Executive Officer or designee in the Rule 1623 Project Plan.

Table 1
Credit Issuance (years)

Equipment	Residential		Commercial	
	Option 1 & 2	Option 3	Option 1 & 2	Option 3
Lawnmowers	4	7	2	3
Edgers/Trimmers (4-Stroke)	4	7	2	3
Edgers/Trimmers (2-Stroke)	3	5	2	3
Shredders/Grinders	4	7	3	5
Blowers/Vacuums (4-Stroke)	4	7	2	3
Blowers/Vacuums (2-Stroke)	3	5	2	3
Chainsaws	3	5	1	1
Tillers	4	7	3	5
Garden Tractors	4	7	2	4
Riding Mowers	4	7	2	4

(g) MSERC Calculation

- (1) The total amount of NO_x, VOC, CO, and PM MSERCs generated per year for the number of years specified in Table 1, when any low- or zero-emission lawn and garden equipment is purchased, sold, replaced, or scrapped shall be based on the following calculation:

$$\text{MSERC} = (\text{Credit per Unit} \times \# \text{ Units}) / \text{TAF}$$

where:

MSERC = Mobile source emission reduction credits (pounds/year).

Credit = Annual emissions reduction generated by equipment type (pounds/year).

Unit = The actual number of lawn and garden equipment purchased, sold, replaced, or scrapped.

TAF = Technical Uncertainty Adjustment Factor, for the purpose of generating credits.

- (2) The amount of Credits per Unit is to be taken from Table 2 for units used by residential users and from Table 3 for units used by commercial users. For projects involving scrapping and replacement, the amount of Credit per Unit is read directly from Tables 2 and 3. For purchase-only projects occurring prior to January 1, 1999, the Credit per Unit is the difference between the credits generated for low- or zero-emission equipment and equipment meeting the 1995 California Emission Standards for Utility and Lawn and Garden Engines. After January 1, 1999, the Credit per Unit is the difference between the credits generated for zero-emission equipment

and equipment meeting the 1999 California Emission Standards for Utility and Lawn and Garden Engines.

- (3) A Technical Uncertainty Adjustment Factor equal to 1.2 shall be applied except that a Technical Uncertainty Adjustment Factor of 1.0 shall be applied for the sale of zero-emission equipment or the replacement of existing equipment with zero-emission equipment.

(h) Use of MSERCs

- (1) MSERCs may be used for any of the following applications:
 - (A) As RECLAIM Trading Credits. The Executive Officer or designee shall convert MSERCs to RTCs upon submission of MSERCs by the user.
 - (B) As an alternative method of compliance with District Regulation XI rules that have future compliance dates. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI. MSERCs must be in existence and designated as an alternative method of compliance in advance of the compliance date.
 - (C) As a method of compliance with District Rule 2202.
 - (D) As New Source Review (NSR) offsets for emission increases at new or modified facilities that are subject to Rule 1303 (b)(2) in accordance with the provisions of Regulation XIII. Pursuant to Rule 504, no variance or series of variances, including emergency and interim variances, shall be granted for a period in excess of 90 days from the initial granting of a variance, from a permit condition implementing a Regulation XIII offset requirement if such permit condition is based upon the use of MSERCs.
 - (E) For voluntary retirement of MSERCs for air quality benefits.
 - (F) As an alternative method of compliance with any District regulations which specifically authorize the use of MSERCs.
- (2) MSERCs shall only be consumed in the air basin where the lawn and garden equipment, used to generate the MSERCs, are based.
- (3) In order to use MSERCs for the applications listed in subparagraph (h)(1)(B) of this subdivision, the user shall submit a compliance plan to the

Executive Officer or designee. The user of MSERCs for applications listed under subparagraph (h)(1)(F) shall also submit a compliance plan to the Executive Officer or designee if the District regulation specifically authorizing the use of MSERCs does not already require a compliance plan. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of MSERCs.

Table 2
Annual Credits per Unit (Residential) by Type of Lawn and Garden Equipment
(lbs/yr)

	Residential											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
Equipment	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
Lawnmowers												
4-Stroke	2	0	7	0	2	0.1	18	0	3	0.1	24	0
2-Stroke	11	0	10	0	11	0	21	0.4	13	0	27	0.4
Edgers/Trimmers												
4-Stroke	1	0	4	0	1	0	8	0	2	0.1	12	0
Handheld												
2-Stroke <50 cc	1	0	3	0	2	0	7	0	3	0	8	0
2-Stroke >50 cc	1	0	5	0	2	0	7	0	3	0	8	0
Shredders/Grinders												
4-Stroke	2	0	7	0	2	0.1	17	0	3	0.1	23	0
2-Stroke	11	0	10	0	11	0	20	0.4	12	0	25	0.4
Blowers/Vacuums												
4-Stroke	1	0	4	0	1	0	9	0	2	0.1	12	0
2-Stroke	2	0	5	0	2	0	7	0	3	0	8	0
Handheld												
2-Stroke <50 cc	1	0	3	0	2	0	7	0	3	0	8	0
2-Stroke >50 cc	1	0	5	0	2	0	7	0	3	0	8	0
Chainsaws												
2-Stroke <50 cc	1	0	1	0	3	0	7	0	4	0	8	0
2-Stroke >50 cc	2	0	5	0	3	0	7	0	4	0	8	0
Tillers												
4-Stroke <225 cc	2	0	10	0	3	0.1	26	0.1	4	0.2	34	0
4-Stroke >225 cc	3	0	10	0	3	0.1	26	0.1	4	0.2	34	0
Garden Tractors												
All	4	0	63	0	8	1.2	285	0.2	15	2.6	396	0
Riding Mowers												
All	1	0	20	0	3	0.4	97	0	6	0.8	136	0

Table 3
Annual Credits per Unit (Commercial) by Type of Lawn and Garden Equipment
(lbs/yr)

Equipment	Commercial											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
Lawnmowers												
4-Stroke <225 cc	30	0	132	0	36	0.9	335	0	59	2.1	436	1
4-Stroke >225 cc	32	0	132	0	36	0.7	335	0	59	2.1	436	1
2-Stroke <225 cc	203	0	189	0	209	0	392	7.6	232	0.3	493	7.8
2-Stroke >225 cc	207	0	189	0	210	0	392	7.6	232	0.3	493	7.8
Edgers/Trimmers												
4-Stroke <225 cc	22	0	98	0	27	0.8	226	0	43	1.5	324	0.6
4-Stroke >225 cc	24	0	98	0	27	0.2	226	0	43	1.5	324	0.6
Handheld												
2 Stroke <20 cc	25	0	25	0	89	0	201	1.3	116	0.4	250	1.4
2-Stroke 20 - 50 cc	40	0	25	0	89	0	201	1.3	116	0.4	250	1.4
2-Stroke >50 cc	63	0	138	0	89	0	201	1.3	116	0.4	250	1.4
Shredders/Grinders												
4-Stroke <225 cc	52	0	95	0	64	2.1	457	0	91	3.7	638	1.3
4-Stroke >225 cc	60	0	95	0	66	0.5	457	0	91	3.7	638	1.3
2-Stroke <225 cc	361	0	336	0	372	0	698	13.5	399	0.5	879	13.9
2-Stroke >225 cc	368	0	336	0	373	0	698	13.5	399	0.5	879	13.9
Blowers/Vacuums												
4-Stroke <225 cc	35	0	64	0	43	0.1	305	0	68	0.1	425	0.9
4 -Stroke >225 cc	38	0	64	0	43	0.1	305	0	68	0.1	425	0.8
2-Stroke <225 cc	250	0	552	0	255	0	734	3.0	277	0	825	3.3
2-Stroke >225 cc	253	0	552	0	256	0	734	3.0	277	0	825	3.3
Handheld												
2-Stroke <20 cc	57	0	280	0	212	0	707	3.0	277	0	825	3.3
2-Stroke 20 - 50 cc	94	0	280	0	212	0	707	3.0	277	0	825	3.3
2-Stroke >50 cc	148	0	552	0	212	0	707	3.0	277	0	825	3.3

continued

Table 3 (continued)
Annual Credits per Unit (Commercial) by Type of Lawn and Garden Equipment
(lbs/yr)

Equipment	Commercial											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NO _x	CO	PM	VOC	NO _x	CO	PM	VOC	NO _x	CO	PM
Tillers												
4-Stroke <225 cc	11	0	49	0	14	0.4	126	0	19	0.8	164	0.3
4-Stroke >225 cc	12	0	49	0	14	0.3	126	0	19	0.8	164	0.3
Garden Tractors												
All	14	0	231	0	31	4.4	1039	0	51	9.3	1444	0.9
Riding Mowers												
All	9	0	210	0	28	4.2	1003	0	53	8.1	1400	0.2

- (4) The compliance plan shall contain the following information:
- (A) Total MSERCs;
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) The period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) A quantification of emissions that would result from noncompliance with the rule identified in subparagraph (h)(4)(B), and documentation supporting the emissions quantification.
- (5) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include, but is not limited to:
- (A) a listing of equipment or materials that are the source of noncompliant VOC, NO_x, CO, PM emissions associated with the rule identified in subparagraph (h)(4)(B).
 - (B) a description and operating conditions of equipment listed in subparagraph (h)(5)(A) or composition and rate of use of materials listed in subparagraph (h)(5)(A).
 - (C) emission rates associated with the use of equipment or materials listed in subparagraph (h)(5)(A).

- (6) The compliance plan shall be written on a form to be specified by the Executive Officer or designee.
 - (7) The Executive Officer or designee shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (8) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer or designee has approved the compliance plan.
 - (9) The user must renew the compliance plan prior to the expiration of MSERCs upon which the plan is based.
- (i) Recordkeeping Requirements
- (1) Persons generating MSERCs under this rule shall be responsible for storing and maintaining data records for each lawn and garden equipment scrapped and purchased. The data records shall identify the equipment's type, manufacturer, model number, identification number, engine displacement, and horsepower, and any other necessary data. The records must also identify the individuals or businesses submitting their old lawn and garden equipment for collection, scrapping, and replacement.
 - (2) A copy of data records described in paragraph (i)(1) shall be maintained by the operator of the project for at least two years from the date of MSERC issuance.
- (j) Compliance Auditing and Enforcement
- (1) The Executive Officer or designee shall be afforded access in the District to audit any files or records created to comply with recordkeeping requirements, specified in subdivision (i), or require persons receiving MSERCs under this rule to submit such records to the Executive Officer or designee upon request.
 - (2) Violation of any provision of this rule, including falsification of information in the Lawn and Garden MSERC Application shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking revocation of the Lawn and Garden MSERC Application, and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules.

(k) Requirements for Public Notice

Following a completeness determination of the Lawn and Garden MSERC Application for the use of MSERCs as NSR offsets only, as provided in subparagraph (h)(1)(D), the Executive Officer or designee shall:

- (1) perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERCs), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) post a public notice on the District public website ~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information. The notice shall provide 30 days from the date of ~~publication~~ public notice posting for the public to submit written comments on the preliminary decision; and
- (3) at the time ~~notice of~~ the preliminary decision is ~~published~~ posted, make available for public inspection, upon request, at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

(l) Appeal of Disapproval of MSERC Issuance

An applicant may, within 30 days of receipt of notice of disapproval, request the hearing board to hold a hearing on whether the Lawn and Garden MSERC Application was properly refused.

(m) Relationship to Intercredit Trading

- (1) MSERCs generated pursuant to this rule may be converted to other denominations, as authorized by other District rules and regulations.
- (2) MSERC credit life may be adjusted, as authorized by other District rules and regulations.

ATTACHMENT F16

(Adopted October 7, 1988)(Amended January 6, 1989)
(PAR 1710 – February 12, 2019)

PROPOSED AMENDED RULE 1710. ANALYSIS, NOTICE, AND REPORTING

- (a) The Executive Officer shall notify all applicants within 30 days as to the completeness of the application or any deficiency in the application or information submitted. In the event of such a deficiency, the date of receipt of the application shall be the date on which the Executive Officer received all required information.
- (b) For major stationary sources subject to Rule 1703(a)(3), within 180 days after receipt of a complete application, the Executive Officer shall:
 - (1) Make a preliminary determination whether construction shall be approved, approved with conditions, or disapproved;
 - (2) Make available for public review, upon request, a copy of materials the applicant submitted, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination. This requirement may be met by making these materials available at a physical location or on the District website. -The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code;
 - (3) Notify the public, ~~by posting a public notice on the District public website~~ advertisement in a newspaper of general circulation in the District, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, whether an alternative to an EPA approved model was used, and of the opportunity for comment at a public hearing. The notice shall be available on the District website for the duration of the public comment period and shall include the notice of public comment, the draft permit (or denial of the permit application), and information on how to access the administrative record for the draft permit and how to request and/or attend a public hearing on the draft permit. The applicant shall be responsible for the

distribution of the public notice to each address within a 1/4-mile radius of the project or such other greater area as determined appropriate by the Executive Officer. The applicant shall provide verification to the Executive Officer that the public notice has been distributed as required by this Section. The notice shall provide 30 days from date of ~~publication~~ public noticeposting for the public to submit written comments;

- (4) Send a copy of the notice of public comment to the applicant, the EPA Administrator, and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: any other state or local air pollution control agencies, the chief executives of the city and county where the source would be located, any comprehensive regional land use planning agency, and any State or Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification;
- (5) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations;
- (6) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. The Executive Officer shall make all comments available for public inspection at the same physical location or on the same District website where the Executive Officer made available preconstruction information relating to the proposed source or modification.~~on the District public website. in the same locations where the Executive Officer made available preconstruction information relating to the proposed source or modification.~~
- (7) Make a final determination whether construction should be approved, approved with conditions, or disapproved; and
- (8) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location or on the same District website where the Executive Officer made available preconstruction information and public comments relating to the proposed source.~~at the same location where the Executive Officer made available~~

~~preconstruction information and public comments relating to the *source* on
the District public website.~~

ATTACHMENT F17

(Adopted November 5, 2010)
(PAR 1714 – February 12, 2019)

PROPOSED AMENDMENT RULE 1714. PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES

(a) Purpose

This rule sets forth preconstruction review requirements for greenhouse gases (GHG). The provisions of this rule apply only to GHGs as defined by the U.S. EPA to mean the air pollutant as an aggregate group of six GHGs: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. All other attainment air contaminants, as defined in Rule 1702 subdivision (a), shall be regulated for the purpose of Prevention of Significant Deterioration (PSD) requirements pursuant to Regulation XVII, excluding Rule 1714.

(b) Applicability

The provisions of this rule shall apply to any source and the owner or operator of any source subject to any GHG requirements under 40 Code of Federal Regulations ~~Part~~ Section 52.21 as incorporated into this rule.

(c) Incorporation by Reference

Except as provided below, the provisions of Title 40 of the Code of Federal Regulations (CFR) Part 52.21, are incorporated herein by reference and made part of the Rules and Regulations of the South Coast Air Quality Management District.

(1) The following subsections of 40 CFR ~~Part~~ Sections 52.21 are excluded: (a)(1), (b)(13), (b)(14), (b)(15), (b)(55-58), (c), (d), (e), (f), (g), (h), (i)(1)(i-v) and (ix-xi), (i)(6-8), (k), (l), (m), (o), (p), (q), (s), (t), (u), (v), (w), (x), (y), (z), (aa), and (cc).

(2) The following term found in 40 CFR Part 52.21(b) is revised as follows:

(A) The term “administrator” means:

- (i) “federal administrator” in 40 CFR 52.21(b)(17), (b)(37)(i), (b)(43), (b)(48)(ii)(c), (b)(50)(i), and (b)(51); and
- (ii) Executive Officer elsewhere, as defined in Rule 102.

(d) Requirements

(1) An owner or operator must obtain a PSD permit pursuant to this rule before beginning actual construction, as defined in 40 CFR 52.21 (b)(11), of a new major

stationary source or major modification to an existing major source as defined in 40 CFR 52.21 (b)(1) and (b)(2), respectively.

- (2) Notwithstanding the provisions of any other District Rule or Regulation, the Executive Officer shall require compliance with this rule, if applicable, prior to issuing a PSD permit for GHG emissions as required by CAA Section 165

(e) Public Participation

For major stationary sources subject to Rule 1714, after receipt of a complete application, the Executive Officer shall:

- (1) Make a preliminary determination whether construction shall be approved, approved with conditions, or disapproved;
- (2) Make available for public review, upon request, a copy of materials the applicant submitted, a copy of the preliminary determination, a copy of the proposed permit, and a copy or summary of other materials, if any, considered in making the preliminary determination. This requirement may be met by making these materials available at a physical location or on the District website. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code;
- (3) Notify the public of the application, ~~by posting a public notice on the District public website, advertisement in a newspaper of general circulation in the District, of the application,~~ the preliminary determination, the degree of increment consumption that is expected from the source or modification, whether an alternative to an U.S. EPA approved model was used, and of the opportunity for written public comment. The notice shall be available on the District website for the duration of the public comment period and shall include the notice of public comment, the draft permit (or denial of the permit application), and information on how to access the administrative record for the draft permit and how to request and/or attend a public hearing on the draft permit. The applicant shall be responsible for the distribution of the public notice to each address within a 1/4-mile radius of the project or such other greater area as determined appropriate by the Executive Officer. The applicant shall provide verification to the Executive Officer that the public notice has been distributed as required by this Section. The notice shall provide 30 days from date of ~~publication~~ public notice posting for the public to submit written comments;
- (4) Send a copy of the notice of public comment to the applicant, the U.S. EPA Administrator, and to officials and agencies having cognizance over the location

where the proposed construction would occur as follows: any other state or local air pollution control agencies, the chief executives of the city and county where the source would be located, any comprehensive regional land use planning agency, and any State or Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification;

- (5) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations;
- (6) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. The Executive Officer shall make all comments available for public inspection at the same physical location or on the same District website where the Executive Officer made available preconstruction information relating to the proposed source or modification.~~on the District public website. in the same locations where the Executive Officer made available preconstruction information relating to the proposed source or modification.~~
- (7) Make a final determination whether construction should be approved, approved with conditions, or disapproved; and
- (8) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location or on the same District website where the Executive Officer made available preconstruction information and public comments relating to the proposed source or modification.~~on the District public website. at the same location where the Executive Officer made available preconstruction information and public comments relating to the source.~~

ATTACHMENT F18

(Adopted October 8, 1993)(Amended August 11, 1995)
(Amended November 14, 1997)(Amended November 5, 2010)
(PAR 3006 – February 12, 2019)

PROPOSED AMENDED RULE 3006. PUBLIC PARTICIPATION

(a) Public Participation Requirements for Permit Actions

(1) All permit actions for initial permit issuance, significant permit revisions, establishment of general permits and permit renewals shall include the following public participation procedures:

(A) The District shall give ~~public~~-notice by posting a public notice on the District public website for the duration of the public comment period. In addition, public notice shall be given to persons on a mailing or electronic mailing list that has been developed to enable interested parties to subscribe to the mailing list. The Executive Officer may update the mailing list from time to time by requesting written indication of continued interest from those listed and may delete from the list the name of any person who fails to respond to such request within a reasonable timeframe.~~publication in a newspaper of general circulation in the county where the source is located, by mail to those who request in writing to be on a list to receive all such notices, and by any other means determined by the Executive Officer to be necessary to assure adequate notice to the affected public.~~

(B) The ~~public~~ notice shall include:

- (i) The identity and location of the affected facility;
- (ii) The name and mailing address of the facility's contact person;
- (iii) The identity and address of the South Coast Air Quality Management District as the permitting authority processing the permit;
- (iv) The activity or activities involved in the permit action;
- (v) The emissions change involved in any permit revision;

- (vi) The name, address, and telephone number of a person who interested persons may contact to review additional information including copies of the proposed permit, the application, all relevant supporting materials, including compliance documents as defined in paragraph (b)(6) of Rule 3000, and all other materials available to the Executive Officer that are relevant to the permit decision;
 - (vii) A brief description of the public comment procedures provided; and,
 - (viii) The time and place of any proposed permit hearing that may be held or a statement of the procedures to request a proposed permit hearing if one has not already been requested.
- (C) Costs of such ~~public~~-notice and public participation process shall be paid, as specified in Regulation III, by the applicant.
- (D) The ~~public~~-notice shall provide at least 30 days for public comment, and shall give at least 30 days of notice if any proposed permit hearing is scheduled.
- (E) The Executive Officer shall keep a record of the commenters and also of the issues raised during the public participation process, for 5 years, so that the EPA Administrator may fulfill the obligation under Section 505(b)(2) of the federal Clean Air Act to determine whether a citizen petition may be granted. Such records shall be available to the public as provided in the California Public Records Act.
- (F) Any person may request a proposed permit hearing on an application for initial permit, permit renewal, or significant permit revision, or for establishment of a general permit, by filing with the Executive Officer a complete request for a proposed permit hearing within 15 days of the date of publication of ~~public notice~~posting. On or before the date the request is filed, the person requesting a proposed permit hearing must also mail by first class mail a copy of the request to the contact person of the Title V facility at the address listed in the notice. A complete request for a proposed permit hearing shall include all of the following information:

- (i) Identification of the permit action on which a proposed permit hearing is requested;
 - (ii) Name, address, and telephone number of the person requesting the proposed permit hearing and of the person to whom further notices should be sent, if different;
 - (iii) Specific identification of the portion or portions of the proposed permit or revision to which objection is made;
 - (iv) Specific identification of the regulatory requirement or requirements, or provisions of these rules, with which the proposed permit or revision is inconsistent, and the reasons the inconsistency is believed to exist;
 - (v) Identification of proposed permit terms or conditions, if any, which would eliminate the inconsistency; and,
 - (vi) A statement of the reason or reasons the requester believes a public hearing would clarify one or more issues involved in the permit decision.
- (G) If a valid request for a proposed permit hearing is received in accordance with subparagraph (a)(1)(F) of this rule, the Executive Officer shall hold a proposed permit hearing noticed at least 30 days prior to the hearing and shall deny or approve the proposed permit, or continue the hearing to a specific announced date on which a revised proposed permit would be available for further public review and comment.
- (H) Unless there is an objection made by an affected facility, the Executive Officer may conduct a group permit hearing for facilities identified in the public's requests for permit hearings.

(b) Exemptions

Permit revision applications eligible for processing using administrative permit revision, minor permit revision, or de minimis significant permit revision procedures shall be exempt from the public participation requirements of subdivision (a) of this rule.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment

Proposed Amended Rule 212 – Standards for Approving Permits and Issuing Public Notice

Proposed Amended Rule 301 – Permitting and Associated Fees

Proposed Amended Rule 303 – Hearing Board Fees

Proposed Amended Rule 306 – Plan Fees

Proposed Amended Rule 307.1 – Alternative Fees for Air Toxics Emissions Inventory

Proposed Amended Rule 309 – Fees for Regulation XVI and Regulation XXV

Proposed Amended Rule 315 – Fees for Training Classes and License Renewal

Proposed Amended Rule 518.2 – Federal Alternative Operating Conditions

Proposed Amended Rule 1310 – Analysis and Reporting

Proposed Amended Rule 1605 – Credits For The Voluntary Repair of On-Road Motor Vehicles Identified Through Remote Sensing Devices

Proposed Amended Rule 1610 – Old-Vehicle Scrapping

Proposed Amended Rule 1612 – Credits for Clean On-Road Vehicles

Proposed Amended Rule 1620 – Credits for Clean Off-Road Mobile Equipment

Proposed Amended Rule 1623 – Credits for Clean Lawn and Garden Equipment

Proposed Amended Rule 1710 – Analysis, Notice, and Reporting

Proposed Amended Rule 1714 – Prevention of Significant Deterioration for Greenhouse Gases

Proposed Amended Rule 3006 – Public Participation

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CHAPTER 1: BACKGROUND

INTRODUCTION

BACKGROUND

AFFECTED INDUSTRIES

PUBLIC PROCESS

INTRODUCTION

Based on SCAQMD's concept to modernize public noticing, California Senate Bill (SB) 1502 was approved in June 2018, allowing air districts to electronically mail (email) public notices in lieu of mail for any person who requests noticing by email. Additionally, in 2016, the U.S. Environmental Protection Agency (U.S. EPA) revised the public notice provisions for Clean Air Act permitting programs (81 ~~Fed. Reg.~~ FR 71613), requiring electronic notice (e-notice) for permit actions for federal permit programs in lieu of providing public notice by newspaper publication. U.S. EPA's rule further allows for e-notice as an option for permit actions by permitting authorities implementing U.S. EPA-approved programs, including but not limited to, New Source Review and Title V permitting. Permitting authorities that implement ~~e-notice~~ e-noticing are also required to make the draft permit available electronically, such as by posting on a permitting authority's South Coast Air Quality Management District's (SCAQMD) public website or on a public website identified by the permitting authority SCAQMD, for the duration of the comment period (e-access).

In an effort to streamline and modernize public noticing and communications with the public, staff reviewed all public noticing and communications in its regulatory program. SCAQMD is proposing amendments to Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 (Proposed Amended Rules) will to modernize and extend flexibilities for public notice-noticing and other communications and to allow electronic payment of certain fee invoices. Pursuant to SB 1502, SCAQMD is also proposing procedures to develop a process to collect email addresses for those stakeholders that elect to receive public notices via email instead of mail and procedures to update email addresses and preferences for email or mail.

BACKGROUND

In response to SB 1502 and 81 ~~Fed. Reg.~~ FR 71613, SCAQMD is proposing amendments to modernize communications and streamline public notification. The Proposed Amended Rules ~~which~~ can be divided into four categories of amendments: 1) Public Notifications for New Source Review and Federal Permit Programs; 2) Public Notifications for Rulemaking Activities; 3) Communications for Implementing Fee Rules; and 4) Public Notifications for Offset Program Rules.

California Health and Safety Code Sections 40440.5 and 40440.7 require ~~air districts~~ SCAQMD to send public workshop and public hearing notices for rule adoption, amendment, or repeal by mail. In June 2018, SB 1502¹ was approved which allows air districts to send public notices by email in lieu of by mail. Under SB 1502, air districts are required to send notices by mail to any person who requests noticing by mail and to adopt procedures for the public to request public notices to be sent by mail and ~~a process~~ to update their email addresses. These procedures must be adopted, and updated as needed, by the air districts' Governing Board. The requirements of SB 1502 are now codified in relevant part at California Health and Safety Code Section 40006. Consistent with state law, proposed amendments to Rule 110 will allow for both email and mail distribution of public notifications for rulemaking activities.

In October 2016, the U.S. EPA revised the public notice and public participation provisions for federal permit programs including the New Source Review (NSR), Title V, Prevention of

¹ California Senate Bill 1502:

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB1502

Significant Deterioration (PSD),² and Outer Continental Shelf (OCS) permit programs of the Clean Air Act by revising permitting provisions in 40 Code of Federal Regulations (CFR) Parts 51, 52, 55, 70, 71, and 124 to update permit processing requirements.² The 2016 final rule removed the mandatory requirement for public notice of a draft air permit through publication in a newspaper, and instead requires ~~e-notice e-noticing~~ for U.S. EPA actions and actions by permitting authorities implementing the federal permitting rules, and allows for ~~e-notice e-noticing, such as posting on an air district's website,~~ as an option for actions by permitting authorities implementing U.S. EPA-approved programs. When ~~e-notice e-noticing~~ is provided, there must also be e-access to the draft permit. U.S. EPA defines “e-notice” as electronic posting on a publicly accessible website identified by the permitting authority and “e-access” as making a draft permit available electronically on a publicly accessible website identified by the permitting authority for the duration of the public comment period.

SCAQMD has received delegated authority to implement two programs under federal permitting rules. For these two permit programs, e-notice instead of newspaper publication is now mandated. The first program is a 2007 “Agreement for Partial Delegation of Authority” between SCAQMD and the U.S. EPA which partially delegated authority to issue PSD initial permits and to modify certain existing PSD permits, subject to the terms and conditions of the agreement.³ The proposed changes in PAR 212 and Regulation XVII – Prevention of Significant Deterioration, specifically PAR 1710 and 1714, will ensure federal permitting rules are followed for permitting actions in keeping with the partial delegation. -The second program is a 1994 “Agreement for Delegation of Authority” between SCAQMD and the U.S. EPA which delegated the authority to implement and enforce the requirements of the OCS Air Regulations (40 CFR Part 55) within 25 miles of the state’s seaward boundary.⁴ The delegation was expressly premised on SCAQMD working to ensure Rule 212 was interpreted (and amended, as needed) to incorporate the “public notice and comment procedures for permitting of OCS facilities.”⁵ The proposed changes in PAR 212 will also accomplish consistency with this historical delegation.⁶

Additionally, U.S. EPA’s final rule on e-noticing includes the option of e-noticing for permits issued under the authority of U.S. EPA-approved programs. ~~Given~~ With reference to this option, SCAQMD implements an U.S. EPA-approved Title V permit program and is also the permitting authority of Nonattainment NSR permits. In June 2018, California Air Resources Board (CARB)

² Revisions to Public Notice Provisions in Clean Air Act Permitting Programs, 81 ~~Fed. Reg.~~ FR 71613 (Oct. 18, 2016). <https://www.gpo.gov/fdsys/pkg/FR-2016-10-18/pdf/2016-24911.pdf>. New Source Review includes the minor NSR, Prevention of Significant Deterioration (PSD), and Nonattainment NSR programs.

³ U.S. EPA-South Coast Air Quality Management District Agreement for Partial Delegation of Authority to Issue and Modify Prevention of Significant Deterioration Permits Subject to 40 CFR 52.21, July 25, 2017, https://www.epa.gov/sites/production/files/2015-08/documents/south_coast_aqmd_psd_delegation_agreement.pdf

⁴ U.S. EPA-South Coast Air Quality Management District Agreement for Delegation of Authority for Outer Continental Shelf Air Regulations (40 CFR Part 55), May 9, 1994, https://www.epa.gov/sites/production/files/2015-08/documents/south_coast_ocs_agreement.pdf; Notice of the delegation was published in the Federal Register on July 15, 1994.

⁵ Updating Rule 212 is “mandatory” and appropriate according to the terms of the delegation agreement. In the fine print of the rule on e-noticing, U.S. EPA explained that e-notice and e-access was not generally required for “permitting authorities that are delegated authority to issue permits under 40 CFR part 55,” and that this was not proposed. 81 ~~Fed. Reg.~~ FR at 71618, n. 11.

⁶ The District adopted Rule 1183-Outer Continental Shelf (OCS) Air Regulations on March 12, 1993, to enable its exercise of authority under the delegation. Changes to Rule 1183 which only incorporates provisions of 40 CFR Part 55, ~~and are~~ are not presently warranted or needed.

Advisory 299⁷ addressed the availability of this option for air districts, explaining that air districts can permissibly change their rules and practices for approved permit programs to accord with federally-authorized e-noticing and that such changes would not violate the Protect California Air Act of 2003⁸. CARB Advisory 299 also recommends a dedicated web page for listing all public notices related to NSR permitting and that all public notices contain certain minimum information requirements. U.S. EPA and CARB allow e-noticing to enhance public participation and to better inform the public. As CARB Advisory 299 indicates, newspaper publication of public notices may still be required under other provisions of the California Health and Safety Code and other laws and regulations, such as the California Environmental Quality Act.

Proposed amendments to Rules 212, 518.2, 1710, 1714, and 3006 are ~~offered~~ in direct response to the U.S. EPA rule changes in 2016 that allow or require e-noticing. Rules 1310, 1605, 1610, 1612, 1620, and 1623 were identified by staff. These rules concern permit-type actions (or actions ancillary to permitting actions) that involve offsets and emission reduction credits. California Health and Safety Code Section 40713 requires that there be procedures for the approval of reductions under offset programs, specifying that they provide “for public comment within 30 days after notice of any proposed approval” and that the procedures be “comparable to district permit procedures.” There is no Health and Safety Code or federal requirement for notice by newspaper advertisement for these types of actions, and staff has therefore identified these rules as eligible for amendment ~~that also warrant updates~~ to enable e-noticing. Neither the U.S. EPA rule on e-noticing nor CARB Advisory 299 had reason to address these types of actions or to mandate requirements for them, but the stated justifications and rationale for e-noticing are the same, and the proposed amendments will serve to ensure that procedures remain “comparable to district permit procedures.”

Proposed amendments to Rules 301, 303, 306, 307.1, 309, and 315 would also authorize modern means of communications and correspondence in the implementation of SCAQMD rules under Regulation III – Fees. These rules are subject to amendment under SCAQMD’s general authority to adopt and revise rules, and they are eligible for amendment apart from the enactment of SB 1502. These changes would generally enable SCAQMD to mail, email, or electronically issue notices, communications, and invoices in the implementation of fee rules. The changes would also recognize that certain fee invoices may be paid electronically.

Rules 510 – Notice of Hearing, 515 – Findings and Decision, and 812 – Notice of Hearing, were initially identified as eligible for amendment by SB 1502. These rules call for the mailing or delivery of certain notices in the conduct of Hearing Board activities. Under further review, these notices are not necessarily “public notices” under the terms of Health and Safety Code Section 40006. Staff now recommends Rules 510, 515, and 812 not be amended, because SB 1502 does not specifically enable or invite such changes. Delivery of notices by email may be consistent with current rule text, yet staff has determined that the previously contemplated rule changes for these rules that had been considered in reference to SB 1502 are no longer warranted.

Staff had additionally studied Rule 1309 – Emission Reduction Credits and Short Term Credits, as eligible for amendment to also allow for e-noticing in lieu of notice by newspaper advertisement, but that rule’s requirement to publish a newspaper notice (Rule 1309(f)(3)) is strictly the

⁷ California Air Resources Board Advisory 299: <https://www.arb.ca.gov/enf/advs/advs299.pdf>

⁸ California Senate Bill 288: http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200320040SB288; California Health and Safety Code §§ 42501-42507.

responsibility of a facility that would request to generate or use Short Term Credits. It also bears noting that facilities have not been known to use this provision since its adoption. The rationale for e-noticing that applies when SCAQMD seeks public comment on its own proposed actions is not germane to this part of Rule 1309, and staff accordingly does not recommend amending Rule 1309.

AFFECTED INDUSTRIES

The proposed amendments are for permit actions, public notices required for rulemaking, and fee invoices. Therefore these amendments potentially affect every industry within the SCAQMD's jurisdiction.

PUBLIC PROCESS

~~The A Public Workshop was held at the SCAQMD Headquarters in Diamond Bar on November 29, 2018. The proposed rule amendments are administrative changes, and were deemed to not have a material impact on subject businesses, given the retention of the right to opt in to remain on a mailing list for rules made eligible for amendment by SB 1502. A Public Hearing will be held, during which the public may provide input on the proposed amendments. The Public Hearing is scheduled to be held at the SCAQMD Headquarters in Diamond Bar on March 1, 2019.~~

CHAPTER 2: SUMMARY OF PROPOSAL

INTRODUCTION

PROPOSED RULE AMENDMENTS

PROPOSED IMPLEMENTATION

INTRODUCTION

The purpose of the proposed amendments is to allow for the option to send public notices by electronic mail (email), electronically notice (e-notice) permit actions, and email fee invoices. Proposed Amended Rule 110 incorporates the option provided by California Senate Bill (SB) 1502 to email public notices regarding rule development to stakeholders that indicate their preference to receive such notices by email.

Rules 212, 518.2, 1710, 1714, and 3006 pertain to approved or delegated Clean Air Act permit programs, specifically New Source Review (NSR) permitting, which includes Prevention of Significant Deterioration (PSD) permitting; Outer Continental Shelf (OCS) permitting; and the Title V operating permits program. These rules are proposed for amendment to align with new amendments to the U.S. Environmental Protection Agency's (U.S. EPA's) permitting rules for the e-noticing of draft permits. These changes for Clean Air Act permit programs were published as a final rule on October 18, 2016 at 81 ~~Fed. Reg.~~ FR 71613. Accordingly, for South Coast Air Quality Management District's (SCAQMD's) delegated permit programs, e-noticing of draft permits has been required per 40 Code of Federal Regulations (CFR) parts 52, 55, 71, and 124 since the effective date in 2016. For SCAQMD's approved permit programs, the final rule authorizes permitting authorities to adopt e-noticing when it is adopted as the "consistent noticing method". Permitting authorities that conduct e-noticing are not precluded from supplementing ~~e-notice~~ e-noticing with additional means of notification to the public, which may include newspaper advertisement. SCAQMD staff has coordinated with California Air Resources Board (CARB) staff in its development of the proposed changes to permit rules to ensure appropriate adherence to CARB Advisory 299. The text of the proposed amendments has been made to align with the regulatory text that U.S. EPA promulgated in its final rule, as now found in the pertinent paragraphs on public participation at 40 CFR sections 51.165, 51.166, 52.21, 70.7, and 124.10. To satisfy the final rule's requirement for electronic access (e-access) to draft permits, SCAQMD will host its existing, dedicated public web pages for permit actions to meet requirements for e-notice and e-access, as federally required. Adjusting changes to the website will be made, as appropriate, to reflect that ~~e-notice~~ e-noticing will serve as the consistent noticing method for permit actions. The provision of e-access will not affect the SCAQMD's record retention policies.

SCAQMD proposes to enable options for electronic notification or communication in multiple other rules. The proposed rule amendments are administrative changes.

Additional details regarding the implementation of these options for electronic notification or communication are found in Appendix 1 – Procedures for Including Electronic Public Notice ~~and Invoice Delivery.~~

PROPOSED RULE AMENDMENTS

The rules proposed for amendment include:

- Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment
- Rule 212 – Standards for Approving Permits and Issuing Public Notice
- Rule 301 – Permitting and Associated Fees
- Rule 303 – Hearing Board Fees
- Rule 306 – Plan Fees
- Rule 307.1 – Alternative Fees for Air Toxics Emissions Inventory

- Rule 309 – Fees for Regulation XVI and Regulation XXV
- Rule 315 – Fees for Training Classes and License Renewal
- Rule 518.2 – Federal Alternative Operating Conditions
- Rule 1310 – Analysis and Reporting
- Rule 1605 – Credits For The Voluntary Repair of On-Road Motor Vehicles Identified Through Remote Sensing Devices
- Rule 1610 – Old-Vehicle Scrapping
- Rule 1612 – Credits for Clean On-Road Vehicles
- Rule 1620 – Credits for Clean Off-Road Mobile Equipment
- Rule 1623 – Credits for Clean Lawn and Garden Equipment
- Rule 1710 – Analysis, Notice, and Reporting
- Rule 1714 – Prevention of Significant Deterioration for Greenhouse Gases
- Rule 3006 – Public Participation

The proposed amendments are categorized into four groups:

1. Public Notifications for New Source Review and Federal Permit Programs

Proposed Amended Rules 212, 518.2, 1710, 1714, and 3006 will satisfy U.S. EPA’s modernized requirements for public noticing and public participation for delegated and approved Clean Air Act permit programs. The proposed amendments include removing provisions requiring public notification by newspaper and adding requirements to post draft air permits and public notices for permit actions on the SCAQMD website. These changes ensure SCAQMD permit processing will follow the e-notice and e-access requirements in U.S. EPA regulations.

2. Public Notifications for Rulemaking Activities

Proposed Amended Rule 110 will allow SCAQMD to send public notices by email if an email address is available; by other electronic means; and by mail should an individual opt-in to receive public notices by mail only or has not registered his or her noticing preferences. SB 1502 enables the SCAQMD to amend its rules to expand public noticing options to include by email.

3. Communications for Implementing Fee Rules

Proposed Amended Rules 301, 303, 306, 307.1, 309, and 315 will allow SCAQMD to email certain fee invoices to be emailed and expand payment options for certain fee invoices. Additionally, payment options are expanded to include electronic payment.

4. Public Notifications for Offset Program Rules

Proposed Amended Rules 1310, 1605, 1610, 1612, 1620, and 1623 will allow SCAQMD to post notices for public comment on the publicly accessible SCAQMD website, remove the requirement to conduct public noticing by newspaper publishing and instead require posting public notices on the SCAQMD website. Additionally, changes clarify that information required at the time the public notice is posted will now be available for public inspection upon request instead of immediately available.

Tables 1 through 4 summarizes the categories of categorical amendments for each rule:

Table 1. Public Notifications for New Source Review and Federal Permit Programs

Rule Number	Rule Title
212	Standards for Approving Permits and Issuing Public Notice
518.2	Federal Alternative Operating Conditions
1710	Analysis, Notice, and Reporting
1714	Prevention of Significant Deterioration for Greenhouse Gases
3006	Public Participation

Table 2. Public Notifications for Rulemaking Activities

Rule Number	Rule Title
110	Rule Adoption Procedures to Assure Protection and Enhancement of the Environment

Table 3. Communications for Implementing Fee Rules

Rule Number	Rule Title
301	Permitting and Associated Fees
303	Hearing Board Fees
306	Plan Fees
307.1	Alternative Fees for Air Toxics Emissions Inventory
309	Fees for Regulation XVI and Regulation XXV
315	Fees for Training Classes and License Renewal

Table 4. Public Notifications for Offset Program Rules

Rule Number	Rule Title
1310	Analysis and Reporting
1605	Credits For The Voluntary Repair of On-Road Motor Vehicles Identified Through Remote Sensing Devices
1610	Old-Vehicle Scrapping
1612	Credits for Clean On-Road Vehicles
1620	Credits for Clean Off-Road Mobile Equipment
1623	Credits for Clean Lawn and Garden Equipment

An example of each type of change is below:

Public Notifications for New Source Review and Title V Permit Programs ~~Federal Permit Programs~~

Proposed Amended Rule 3006 - Subparagraph (a)(1)(A)

The District shall give ~~public~~ notice by posting a ~~public~~ notice on the District public website for the duration of the public comment period. In addition, ~~public~~ notice shall be given to persons on a mailing or electronic mailing list that has been developed to enable interested parties to subscribe to the mailing list. The Executive Officer may update the mailing list from time to time by requesting written indication of continued interest from those listed and may delete from the list the name of any person who fails to respond to such request within a reasonable timeframe. ~~publication in a newspaper of general circulation in the county where the source is located, by mail to those who request in writing to be on a list to receive all such notices, and by any other means determined by the Executive Officer to be necessary to assure adequate notice to the affected public.~~

Public Notifications for Rulemaking Activities

Proposed Amended Rule 110 - Subdivision (a)

In addition to providing the public notice of District Board meetings and hearings as required by Health and Safety Code Section 40725, the District shall consult with state and local governmental agencies having jurisdiction by law with respect to the subject matter of a proposed rule or regulation, and public notice shall be sent by mail, electronic mail, or other electronic means, ~~mailed~~ to all persons who have requested such notice in writing. For informational purposes, public notice may be posted on the District public website and may be provided to newspapers of general circulation, to all persons believed to be interested in the proceeding, and to the State Clearinghouse for circulation to public agencies.

Communications for Implementing Fee Rules

Proposed Amended Rule 301 - Subparagraph (c)(1)(B)

For fees due upon notification, such notice may be given by personal service ~~or by deposit, postpaid, in the United States~~ or sent by mail, electronic mail, or other electronic means, and shall be due thirty (30) days from the date of personal service, ~~or mailing, or electronic transmission~~. For the purpose of this subparagraph, the fee payment will be considered to be received by the District if it is delivered, postmarked by the United States Postal Service, or electronically paid on or before the expiration date stated on the billing notice. If the expiration date falls on a Saturday, Sunday, or a state holiday, the fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the expiration date.

Public Notifications for Offset Program Rules

Proposed Amended 1310 – Paragraph (c)(2)

Within ten calendar days following such decision, post a public notice on the District public website ~~publish a notice by prominent advertisement in at least one newspaper of general circulation in the District~~ stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information required to be made available

under paragraph (c)(3). The public notice shall provide 30 days from the date of ~~publication~~ public noticeposting for the public to submit written comments on the preliminary decision; and

PROPOSED IMPLEMENTATION

These administrative amendments will facilitate: e-noticing of permit actions and providing e-access to draft permits; sending public notices by email; and sending certain fee invoices by email and allowing electronic payment for certain fee invoices when possible and appropriate. Public notices required for rulemaking activities will continue to be delivered by mail until a facility or interested party submits a confirmation that notice by email ~~or e-notice~~ is preferred.

~~Air Districts~~ districts utilizing the flexibilities extended by SB 1502 are required to have their district board “adopt, and update as needed, procedures for a person to request public notices to be sent by mail and update an electronic email address.” These procedures are included in Appendix 1 – Procedures for Including Electronic Public Notice, ~~and Invoice Delivery.~~ and will occur in two phases. Phase I will be a data gathering campaign to collect email addresses and preferences. During Phase I, public notices will be mailed in addition to being emailed. Phase II will continue to collect email addresses and preferences and will remove public noticing by mail for individuals who have requested public noticing by email. In addition, Appendix 1 discusses procedures regarding how permitted facilities and interested parties may receive other types of public notices and fee invoices regularly sent by SCAQMD, but these procedures are not in the purview of SB 1502 and the requirement for procedures that is codified at Health and Safety Code Section 40006(e).

In order to comply with U.S. EPA rules for e-noticing in the administration of Clean Air Act permit programs and CARB Advisory 299, SCAQMD will maintain and enhance a dedicated web page on its website to e-notice all public notices related to permit actions. This web page will provide e-access to the public and contain the draft permit. Supplementary material such as the permit application and preliminary determination materials will be made available for public inspection, upon request. These public notices will be available for e-access by the public for the duration of the public comment period for each permit action. Information on permitting actions that require public notice is maintained on the website beyond the end of the comment period, up to a maximum duration of six (6) months, under existing practices. The posted public notice provides directions on how to submit comments on a draft permit.

Noticing of permit actions by newspaper publication may continue to be retained as an additional and supplemental means of public noticing while SCAQMD pursues web page enhancements to better promote public participation in keeping with the e-notice and e-access requirements for Clean Air Act permit programs. An existing dedicated web page already serves to ensure SCAQMD satisfies e-noticing requirements for the issuance of federal Prevention of Significant Deterioration permits, and public notices for permit actions under Rule 3006 are already posted on the SCAQMD website. Changes will be made to specifically indicate that the website provides these notices to accomplish a consistent noticing method. Historically, public notices for permit-related actions, e.g., Rule 1310 or in the Rules under Regulation XVI, have been rare, but they would have the potential to be posted on the same dedicated web page.

CHAPTER 3: IMPACT ASSESSMENT

INTRODUCTION

RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS

COMPLIANCE COSTS

SOCIOECONOMIC ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE
SECTION 40727**

COMPARATIVE ANALYSIS

INTRODUCTION

The proposed amendments allow for the option to send public notices by electronic mail (email), to electronically notice (e-notice) permit actions and provide electronic access (e-access) to these permit actions, and to email and allow for electronic payment of fee invoices.

RULE ADOPTION RELATIVE TO COST EFFECTIVENESS

The proposed amendments are administrative and have been determined to have no negative impact on air quality.

COMPLIANCE COSTS

South Coast Air Quality Management District (SCAQMD) has determined that no additional costs will be incurred to stakeholders. All elections to remain on a mailing list will be made either on the SCAQMD website or on existing print material presented to an individual, such as a sign-in sheet.

SOCIOECONOMIC ASSESSMENT

The amendments proposed are administrative in nature and will not impose any additional costs to facilities or result in other socioeconomic impacts. The proposed amendments do not significantly affect air quality and do not establish an emission limit or standard, and therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to the rules identified above (the proposed project) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

Necessity

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are needed to align SCAQMD's rule language with U.S. Environmental Protection Agency, California Air Resources Board, and California Senate directives and recommendations. These proposed amendments are necessary to facilitate email public noticing and fee invoicing and to increase the public awareness of permit actions such as those triggered by New Source Review via e-noticing on the SCAQMD website. The proposed amendments also address the need that persons may still desire to receive communications from SCAQMD by mail, which the proposed amendments, in alignment with California Senate Bill 1502, allow. The adoption of these proposed amendments will allow for more efficient communication between SCAQMD and facilities and interested parties, promoting increased public engagement and improved communication.

Authority

The SCAQMD obtains its authority to adopt, amend, or repeal rules and regulations pursuant to California Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40440, 40441, 40506, 40702, 40709, 40725 through 40728, 41508, 42300 et. seq., and 44380 et. seq.~~41511~~.

Clarity

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are written or displayed so that their meaning can be easily understood by the persons directly affected by them.

Consistency

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

Proposed Amended Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 will not impose the same requirements as any existing state or federal regulations. The proposed amended rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference

In amending these rules, the following statutes which the SCAQMD hereby implements, interprets, or makes specific are referenced: Health and Safety Code Sections 39002, 40001, 40506, 40006, 40702, 40709, 40713, 40440(a), 40725 through 40728.5, and 41511.

COMPARATIVE ANALYSIS

Pursuant to Health and Safety Code 40727.2(g), the SCAQMD is electing to comply with subdivision (a) by finding that the proposed amended rules do not impose new or more stringent monitoring, reporting, or recordkeeping requirements.

APPENDIX 1: PROCEDURES FOR INCLUDING ELECTRONIC PUBLIC NOTICE AND INVOICE DELIVERY

INTRODUCTION

RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS

COMPLIANCE COSTS

SOCIOECONOMIC ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE
SECTION 40727**

COMPARATIVE ANALYSIS

BACKGROUND

California Senate Bill (SB) 1502, adopted on June 28, 2018, requires the South Coast Air Quality Management District (SCAQMD) Governing Board to adopt and update procedures that must identify how a person:

Requests public notices to be sent by mail; and

Updates an electronic mail (email) address.

The procedures in this ~~appendix~~ Appendix describe how certain email distribution and ~~e-noticing~~ noticing processes will take place ~~and how permitted facilities and interested parties may receive other types of public notices and fee invoices regularly sent by SCAQMD.~~

~~Separately, this appendix also provides details on programmatic compliance with U.S. Environmental Protection Agency rules for e-noticing in the administration of Clean Air Act permit programs and California Air Resources Board Advisory 299.~~

CURRENT PRACTICE FOR MANAGING EMAIL SUBSCRIPTION AND PUBLIC NOTICE LISTS

SCAQMD currently collects and manages email subscription and public notice lists for various purposes. These lists are used to send communications via mail, email, or both, and utilize various means of data collection and storage for mailing addresses, email addresses, and other similar contact information.

Currently, the SCAQMD website includes a link for individuals to sign up for email distribution of public notices and other information of specific interest to that person at <http://www.aqmd.gov/sign-up>. The list of subscriptions for which an individual may enroll includes:

- General Notifications
- Clean Air Plans/CEQA Updates
- Equipment Exchange
- Incentive Programs
- Permit/Compliance Notifications
- Refinery Flare Emission Notification
- New Technology
- Rule Updates

Additionally, SCAQMD offers newsletter updates on these topics through its subscription-based public outreach tool. The subscriber is allowed to manage and update his or her subscription information including unsubscribing from lists, subscribing to additional lists, or updating his or her email address and other additional information. Subscription information is stored and managed at SCAQMD and communications are distributed to subscribers via automated public notices, for example Air Alerts for daily pollution forecasts or specific pollution levels in a particular area. In addition, subscribers may receive targeted information on selected and subscribed topics.

PROCEDURES TO COMPLY WITH SB 1502

SCAQMD will develop a program to collect and manage preferences for public noticing required by SCAQMD rules and regulations and a mechanism to provide and update an email address from approximately 22,000 permitted facilities as well as from interested parties. The procedures will be developed in ~~three~~ two phases: 1) Data Gathering and Basic Email Noticing; and 2) Advanced Email Noticing; ~~and 3) Email Delivery of Fee Invoices.~~

Once completed, the program will allow SCAQMD to send notices:

1. By email to all facilities required to receive these public notices;
2. By mail to all facilities requesting to receive these public notices by mail; and
3. By email or mail to all interested parties that specify an interest in receiving these public notices either by email or mail, respectively.

Phase I: Data Gathering and Basic Email Noticing

The first phase of these procedures is to provide a means for permit holders and interested parties to provide their email addresses for notification. The primary objective is to collect email addresses and associated contact information, as well as public notice preferences (~~e.g.i.e.~~, “All Permit Actions” or “All Title V Permit Actions”). Subsection “Notifying Permit Holders and Interested Parties of Procedures” within this Appendix ~~11~~ lists outreach methods for notifying individuals and permit holders to register their public notice preferences. Phase I will use the SCAQMD’s existing subscription-based public outreach program which can be accessed at <http://aqmd.gov/sign-up>. This tool will be used for emailing public notices, but will not replace any required mail-outs to permit holders and interested parties. Persons who specify an email notice preference will receive that public notice by both mail and email until Phase II is complete. The information collected in Phase I will be transferred to the new tool in Phase II.

Phase II: Advanced Email Noticing

Phase II will create a dedicated tool for emailing the appropriate public notices to permit holders and interested parties. This phase of the procedures is to enhance Phase I by adding additional, more-specific noticing preferences (~~e.g., noticing by NAICS code~~). The new tool will require an input field for mailing address in order to remove duplicate mailed public notices for those that ~~specified~~ specify the email noticing preference.

Phase III: Email Delivery of Fee Invoices

~~This phase of the procedures is to provide a means for permit holders and interested parties to receive fee invoices by email instead of by mail. This phase will require a separate and more complex system to be developed and released in the future. Appropriate and advance notice will be given to all permit holders and interested parties when that project is complete and will include instructions for how to register their information to receive such items by email.~~

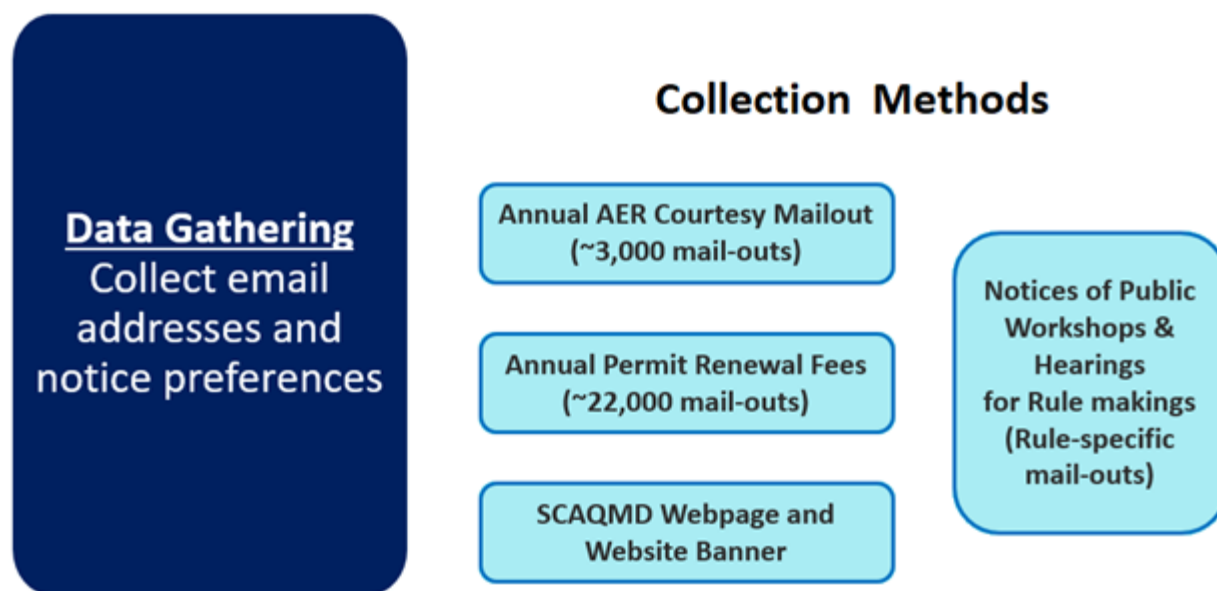
SCAQMD proposes to establish through these procedures the process to collect email addresses for all permit holders and for other interested parties who wish to receive certain notices ~~through the Procedures~~. The electronic infrastructure to collect and update email addresses needs to be developed. This document will be updated as necessary.

NOTIFYING PERMIT HOLDERS OF INTERESTED PARTIES OF PROCEDURES

To facilitate the transition to email noticing and, web-based e-noticing, ~~and email invoicing~~, SCAQMD will conduct outreach efforts to permitted facilities and interested parties as part of a Data Gathering campaign to collect notice preference information. Figure 1 illustrates some, but not all, avenues SCAQMD may utilize for its Data Gathering campaign. These include mail-outs that are normally distributed to permit holders and interested parties which will include language to submit the recipients' notice preferences on the SCAQMD website.

With regard to delivery of public notices required under rulemakings, SCAQMD will make the effort to contact each permit holder a minimum of three times to obtain an email address and noticing preferences, using the methods described above in Phase I.

Figure 1. Data Gathering Collection Methods



~~PROCEDURES TO ELECTRONICALLY NOTICE PERMIT ACTIONS SUBJECT TO PUBLIC NOTIFICATION AS ALLOWED OR REQUIRED BY THE CODE OF FEDERAL REGULATIONS AND CALIFORNIA AREA RESOURCES BOARD ADVISORY 299~~

~~SCAQMD will maintain and enhance a dedicated web page on its website to e-notice all public notices related to permit actions. This web page will provide e-access to the public and contain the draft permit, with any sSupplementary material such as the permit application and preliminary determination materials will be made available for public inspection, upon request, at the SCAQMD officemade available, upon request. These public notices will be available for e-access by the public for the duration of the public comment period for each permit action. Information on permitting actions that require public notice is already maintained on the website beyond the~~

~~end of the comment period, up to a maximum duration of six (6) months, under existing practices. The posted public notice provides directions on how to submit comments on a draft permit.~~

~~Noticing of permit actions by newspaper publication may continue to be retained as an additional and supplemental means of public notice while SCAQMD pursues web page enhancements to better promote public participation in keeping with the e-notice and e-access requirements for Clean Air Act permit programs. An existing dedicated web page already serves to ensure SCAQMD satisfies e-noticing requirements for the issuance of federal Prevention of Significant Deterioration permits, and public notices for permit actions under Rule 3006 are already posted on the SCAQMD website. Changes will be made to specifically indicate that the website provides these notices to accomplish a consistent noticing method. Historically, public notices for permit-related actions, e.g., Rule 1310 or in the Rules under Regulation XVI, have been rare, but they would have the potential to be posted on the same dedicated web page.~~

APPENDIX 2: PUBLIC COMMENTS

Public Comments

Comments on the preliminary proposed amended rules ~~draft rule~~ were provided by stakeholders at the November 29, 2018 Public Workshop. Comments received at the Public Workshop and South Coast Air Quality Management District (SCAQMD) staff's responses are summarized below.

Comments Made During the Public Workshop

Todd Paxman, Environmental Consultant for AECOM

Comment 1: Facilities will have difficulty verifying delivery of public notices for permit actions to recipients within a quarter-mile for permit actions if they are delivered by email.

Response to Comment 1: The proposed language has been removed. The requirement for facilities to mail or distribute public notices for permit actions to recipients will remain unchanged. If an email address is provided by an individual within the quarter-mile area, they will receive an email version of the public notice in addition to the facility's mailed public notice.

Curtis Coleman, Executive Director for Southern California Air Quality Alliance

Comment 2: I have concern over if there is a designee for a facility for receipt of public notices by email that then leaves or retires and the email does not reach the facility or bounces back. How will SCAQMD handle this?

Response to Comment 2: Under the proposal, SCAQMD will deliver public notices to permitted facilities by mail until a facility affirmatively indicates a preference for email. The email option will allow for multiple individuals from a facility to receive the email, mitigating the single-point-of-contact issue.

Bill La Marr, Executive Director for the California Small Business Alliance

Comment 3: An individual may receive multiple copies of the same public notice and/or receive the same public notice under different titles and affiliations the individual has had.

Response to Comment 3: Staff will make an effort to minimize duplicate delivery of public notices to the same recipient. As stated in Phase I of ~~the Procedures~~ Appendix 1, an individual may update his or her subscription information, including email address and other contact information.

Comment 4: Who is the permit holder for a facility? What happens when an individual retires from the company? A physical mailed notice coming to a mailing address will draw the attention of someone there, another manager or owner or some responsible person, and will hopefully get forwarded to the proper channel.

Response to Comment 4: Please see Response to Comment 2.

Susan Stark, Marathon Oil

Comment 5: It appears that occasionally an individual will be dropped from an email list and said individual will not find out about the notice of the working group until a friend or colleague forwards it to him/her. Occasionally the forward recipient will unsubscribe, thus indirectly unsubscribing the original recipient.

Response to Comment 5: Under the proposal, SCAQMD will develop a data management tool to ensure that emails are sent to the email addresses provided by a facility or interested party. This issue will be taken into consideration in the development of this tool.



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

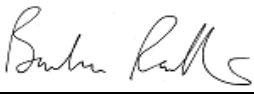
PROJECT TITLE: PROPOSED AMENDED RULES: 110 – RULE ADOPTION PROCEDURES TO ASSURE PROTECTION AND ENHANCEMENT OF THE ENVIRONMENT; 212 – STANDARDS FOR APPROVING PERMITS AND ISSUING PUBLIC NOTICE; 301 – PERMITTING AND ASSOCIATED FEES; 303 – HEARING BOARD FEES; 306 – PLAN FEES; 307.1 – ALTERNATIVE FEES FOR AIR TOXICS EMISSIONS INVENTORY; 309 – FEES FOR REGULATION XVI AND REGULATION XXV; 315 – FEES FOR TRAINING CLASSES AND LICENSE RENEWAL; 518.2 – FEDERAL ALTERNATIVE OPERATING CONDITIONS; 1310 – ANALYSIS AND REPORTING; 1605 – CREDITS FOR THE VOLUNTARY REPAIR OF ON-ROAD MOTOR VEHICLES IDENTIFIED THROUGH REMOTE SENSING DEVICES; 1610 – OLD-VEHICLE SCRAPPING; 1612 – CREDITS FOR CLEAN ON-ROAD VEHICLES; 1620 – CREDITS FOR CLEAN OFF-ROAD MOBILE EQUIPMENT; 1623 – CREDITS FOR CLEAN LAWN AND GARDEN EQUIPMENT; 1710 – ANALYSIS, NOTICE, AND REPORTING; 1714 – PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES; AND 3006 – PUBLIC PARTICIPATION

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and has prepared a Notice of Exemption for the project identified above. SCAQMD staff has reviewed the proposal to amend Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 (the proposed project) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. The proposed amendments to the rules identified above include language to enable the option for public notices and fee invoices to be delivered via electronic mail (email) or other electronic means, in addition to mail where it is required by the Health and Safety Code or SCAQMD rules. The proposed project also establishes a procedure for a person to request public notices to be sent by mail or email. The proposed project also enables for public notices for permit actions to be electronically noticed on the SCAQMD public website in lieu of publishing in a newspaper.

Because the proposed changes are administrative and procedural in nature and would not cause any physical changes that would affect any environmental topic area, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Tracy Tang (c/o Planning, Rule Development and Area Sources) at the above address. Ms. Tang can also be reached at (909) 396-2484. Mr. James McCreary is also available at (909) 396-2451 to answer any questions regarding the proposed amended rules.

Date: January 31, 2019

Signature: 
Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

**NOTICE OF EXEMPTION FROM THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

To: County Clerks
Counties of Los Angeles, Orange,
Riverside, and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Amended Rules: 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment; 212 – Standards for Approving Permits and Issuing Public Notice; 301 – Permitting and Associated Fees; 303 – Hearing Board Fees; 306 – Plan Fees; 307.1 – Alternative Fees for Air Toxics Emissions Inventory; 309 – Fees for Regulation XVI and Regulation XXV; 315 – Fees for Training Classes and License Renewal; 518.2 – Federal Alternative Operating Conditions; 1310 – Analysis and Reporting; 1605 – Credits For The Voluntary Repair of On-Road Motor Vehicles Identified Through Remote Sensing Devices; 1610 – Old-Vehicle Scrapping; 1612 – Credits for Clean On-Road Vehicles; 1620 – Credits for Clean Off-Road Mobile Equipment; 1623 – Credits for Clean Lawn and Garden Equipment; 1710 – Analysis, Notice, and Reporting; 1714 – Prevention of Significant Deterioration for Greenhouse Gases; and 3006 – Public Participation.

Project Location: The SCAQMD has jurisdiction over the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The SCAQMD's jurisdiction includes the federal nonattainment area known as the Coachella Valley Planning Area, which is a sub-region of Riverside County and the SSAB.

Description of Nature, Purpose, and Beneficiaries of Project: The proposed amendments to Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 (the proposed project) include language to enable the option for public notices and fee invoices to be delivered via electronic mail (email) or other electronic means, in addition to mail where it is required by the Health and Safety Code or SCAQMD rules. The proposed project also establishes a procedure for a person to request public notices to be sent by mail or email. The proposed project also enables for public notices for permit actions to be electronically noticed on the SCAQMD public website in lieu of publishing in a newspaper.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status: CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule

Reasons why project is exempt: SCAQMD staff has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the proposed changes are administrative and procedural in nature and would not cause any physical changes that would affect any environmental topic area, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule.

Date When Project Will Be Considered for Approval (subject to change):

SCAQMD Governing Board Hearing: March 1, 2019; SCAQMD Headquarters

CEQA Contact Person:	Phone Number:	Email:	Fax:
Ms. Tracy Tang	(909) 396-2484	ttang@aqmd.gov	(909) 396-3982

Rule Contact Person:	Phone Number:	Email:	Fax:
Mr. James McCreary	(909) 396-2451	jmccreary@aqmd.gov	(909) 396-3324

Date Received for Filing: _____

Signature: _____

(Signed Upon Board Approval)

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rule Development & Area
Sources



ATTACHMENT I

**Proposed Amended Rules
110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310,
1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006**

Governing Board Meeting
March 1, 2019

Background

- June 2018: SCAQMD sponsored SB 1502 which enabled air districts to modernize communication methods and email public notices for rulemaking activities
- October 2016: U.S. EPA revised its public notice requirements to authorize air districts to electronically notice draft air permits (81 Federal Register 71613)
- Proposed amendments streamline public noticing and communications with permit holders for:

**Public Notifications for
Rulemaking Activities**
(SB 1502)

**Public Notifications for New
Source Review and Federal
Permit Programs**
(81 Fed. Reg. 71613)

**Communications for
Implementing Fee Rules**
(No state or federal
requirement)

**Public Notifications for
Offset Program Rules**
(No state or federal
requirement)

Summary of Proposed Amendments

Public Notifications for Rulemaking Activities (SB 1502)

Email Notices of Public Workshop and Public Hearing

- 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment

Public Notifications for New Source Review and Federal Permit Programs (81 CFR 71613)

Post public notices on SCAQMD website and provide electronic access to draft permits

- 212 – Standards for Approving Permits and Issuing Public Notice
- 518.2 – Federal Alternative Operating Conditions
- 1710 – Analysis, Notice, and Reporting
- 1714 – Prevention of Significant Deterioration for Greenhouse Gases
- 3006 – Public Participation

Communications for Implementing Fee Rules (No state or federal requirement)

Email fee invoices and allow electronic payment of certain invoices

- 301 – Permitting and Associated Fees
- 303 – Hearing Board Fees
- 306 – Plan Fees
- 307.1 – Alternative Fees for Air Toxics Emissions Inventory
- 309 – Fees for Regulation XVI and Regulation XXV
- 315 – Fees for Training Classes and License Renewal

Public Notifications for Offset Program Rules (No state or federal requirement)

Post public notices on SCAQMD website

- 1310 – Analysis and Reporting
- 1605 – Credits For The Voluntary Repair Through Remote Sensing Devices
- 1610 – Old-Vehicle Scrapping
- 1612 – Credits for Clean On-Road Vehicle
- 1620 – Credits for Clean Off-Road Mobile Equipment
- 1623 – Credits for Clean Lawn and Garden Equipment

Public Notifications for Rulemaking Activities

Current Practice

- Notices for Public Workshops and Public Hearings sent by mail
- Publish Notices for Public Workshops and Public Hearings in newspapers

Proposal

- Email public notices to all facilities and interested parties who have provided an email address
- Continue to mail public notices unless stakeholder requests notice by email
- Continue to publish notices in newspapers

Email Addresses

- SCAQMD does not have a complete list of email addresses for permit holders
- SB 1502 requires air districts to adopt and update procedures for a person to request notices to be sent by mail and to update an email address

General Approach and Procedures to Collect Email Addresses and Noticing Preferences

Develop electronic infrastructure to collect and update email addresses and for stakeholders to select noticing preferences



Collect email addresses and noticing preferences through:

- Information on SCAQMD website
- Information in direct mailings for permit renewal notices, annual emissions reporting, and other public notices



Initiate email notifications for smaller rulemaking projects where staff can collect email addresses and ask for noticing preferences



For larger rulemaking projects, continue to mail public notices unless stakeholders request noticing by email



Goal is to begin sending majority of public notices by email by 2022 unless notice preference is by mail

Public Notifications for New Source Review and Federal Permit Programs

Method of Public Notifications	Current Practice	Proposal
Publish in newspaper	Yes	No
Post to SCAQMD website	Yes	Yes
Send by mail	Yes	Yes
Send by email	No	Yes (If email address available)

Communications for Implementing Fee Rules and Public Notifications for Offset Program Rules

Fee Rule Communications	Current Practice	Proposal
Fee invoices	Can only send by mail	Add option to send by mail or email

Offset Rule Public Notices	Current Practice (rare)	Proposal
Publish in newspaper	Yes	No
Post to SCAQMD website	Yes	Yes

Recommended Actions

- Adopt the Resolution:
 - Determining that the proposed amendments are exempt from the requirements of the California Environmental Quality Act
 - Amending the Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006
 - Adopting “Procedures for Including Electronic Public Notice”



BOARD MEETING DATE: March 1, 2019

AGENDA NO. 32

PROPOSAL: Approve and Adopt Technology Advancement Office Clean Fuels Program 2018 Annual Report and 2019 Plan Update and Resolution, Receive and File Revised Membership of Technology Advancement Advisory Group, and Approve and Adopt Membership Changes for Clean Fuels Advisory Group

SYNOPSIS: Each year by March 31, SCAQMD must submit to the California Legislative Analyst an approved Annual Report for the past year and a Plan Update for the current calendar year for the Clean Fuels Program. Staff has reviewed the Clean Fuels Program with the Clean Fuels Advisory Group, the Technology Advancement Advisory Group and other technical experts. Additionally, the 2019 Clean Fuels Program Draft Plan Update was presented to the Technology Committee for review and comment at its October 19, 2018 meeting. This action is to approve and adopt the final Technology Advancement Clean Fuels Program Annual Report for 2018 and 2019 Plan Update as well as the Resolution finding that proposed projects do not duplicate any past or present programs. This action is to also receive and file a revised membership list of the Technology Advancement Advisory Group and approve and adopt membership changes to the SB 98 Clean Fuels Advisory Group.

COMMITTEE: Technology, February 15, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve and adopt the attached Technology Advancement Office Clean Fuels Program Draft 2018 Clean Fuels Annual Report and 2019 Plan Update and include it in the SCAQMD's Clean Fuels Program;
2. Approve the attached Resolution finding that the Technology Advancement Office Clean Fuels Program Plan Update for 2019 and its proposed projects do not duplicate any past or present programs of specified organizations;
3. Approve and adopt a list of membership changes to the Technology Advancement Advisory Group; and

4. Approve and adopt membership changes to the SB 98 Clean Fuels Advisory Group.

Wayne Nastri
Executive Officer

MMM:NB:LCM:DAH

Background

Achieving federal and state ambient air quality standards within the South Coast Air Basin will require emissions reductions from both mobile and stationary sources beyond those available from existing technologies. The 2016 AQMP includes measures relying on a mix of currently available technologies as well as the expedited development and commercialization of lower-emitting mobile and stationary advanced technologies in the Basin to achieve these standards. The 2016 AQMP projects that a 45 percent reduction in NO_x by 2023 and an additional 55 percent reduction by 2031 is required, the majority of which must come from mobile sources (both on- and off-road). This requires widespread deployment of clean air technologies as well as further commercialization of advanced technologies.

California Code, Health and Safety Code (H&SC) 40448.5(e), calls for the Clean Fuels Program to consider, among other factors, the current and projected economic costs and availability of fuels, the cost-effectiveness of emissions reductions associated with clean fuels compared with other pollution control alternatives, the use of new pollution control technologies in conjunction with traditional fuels as an alternative means of reducing emissions, potential effects on public health, ambient air quality, visibility within the region, and other factors determined to be relevant by the south coast district. The Legislature recognized the need for flexibility that allows focus on a broad range of technology areas, including cleaner fuels, which can help SCAQMD in achieving its clean air goals.

Last year marked the 30th year of the Clean Fuels Program. The Technology Advancement Office Clean Fuels Program is an integral part of SCAQMD efforts to achieve the significant NO_x reductions called for in the 2016 AQMP. From 1988 to 2018, the Clean Fuels Program leveraged \$321 million into \$1.5 billion in projects, mainly through public-private partnership in conjunction with private industry, technology developers, academic institutions, research institutions and government agencies. This approach has enabled the SCAQMD to historically leverage public funds with outside investment in a ratio of about \$4 of outside funding to every dollar of Clean Fuels funding. More than ever before, the Clean Fuels Program must foster and accelerate advancement of transformative transportation, and off-road technologies where possible, with an emphasis on zero and near-zero emissions vehicle and fuel

technologies. This is especially true given the region's thriving goods movement industry along with the corresponding impact on environmental justice communities.

Last year also marked another significant milestone, the 20th year of the Carl Moyer Program. The two programs produce a unique synergy, with the Carl Moyer Program providing the necessary incentives to push market penetration of the technologies developed and demonstrated by the Clean Fuels Program. This synergy enables the SCAQMD to act as a leader in both technology development and commercialization efforts targeting reduction of criteria pollutants.

The SCAQMD is required by H&SC Section 40448.5.1 to adopt a plan that describes the expected cost and benefits of proposed projects prior to any Clean Fuels Program expenditures and find that the proposed projects do not duplicate programs of other organizations specified in the H&SC provision. In 1999, SB 98 amended this provision by requiring annual updates to this Plan as well as a 30-day public notice to specified interested parties and the public prior to the annual public hearing at which the Board takes action on the Clean Fuels Program. SB 98 also requires the preparation of an annual report with specified contents that include the prior year's accomplishments. This annual report requires review by an advisory group and approval by the Board, prior to submittal to specified offices of the California Legislature each year. This legislation also specifies the make-up of the 13-member Clean Fuels Advisory Group and its primary responsibility to make recommendations regarding the most cost-effective projects that advance and implement clean fuels technology and improve public health. The membership of the SB 98 Clean Fuels Advisory Group was initially approved by the Board in September 1999. Changes to the composition are reviewed by the Technology Committee on an as-needed basis, subject to full Board approval as required by the charter. Prior to the formation of the SB 98 Clean Fuels Advisory Group, the SCAQMD had formed the Technology Advancement Advisory Group (TAAG) to review and assess the Clean Fuels Program. The charter and membership of the TAAG was revised in 1999 with formation of the SB 98 Clean Fuels Advisory Group so the functions of the two advisory groups would be complementary. The TAAG's charter specifies membership changes must be approved by the Technology Committee.

Proposal

These actions are for the Board to approve and adopt the TAO Clean Fuels Program 2018 Annual Report and 2019 Plan Update and, as part of the Board's consideration of the 2019 Plan Update, to make a finding that the update and its proposed projects do not duplicate any past or present programs of specified organizations. The review process by the two advisory groups helps ensure that SCAQMD efforts do not duplicate projects. The advisory groups provide feedback to staff on the documents during in-person biannual meetings and through subsequent correspondence. The advisors are all experts in different fields, with the majority being current or retired members of national

laboratories, state or federal agencies and/or academia. Staff diligently monitors specific technologies through efforts at state and federal collaboratives, partnerships and industrial coalitions. Staff also invites other technical experts to review the Annual Report and Plan Update. Through this effort, staff is confident there is no duplication of technology projects represented in the Plan Update, as required in the H&SC.

These actions are to also receive and file membership changes to the TAAG and approve and adopt membership changes to the SB 98 Clean Fuels Advisory Group, as required by their respective charters. This package includes a Resolution (Attachment A), proposed new advisory group members including their biographies (Attachment B), and one combined document comprising the TAO Clean Fuels Program 2018 Annual Report and 2019 Plan Update (Attachment C).

Clean Fuels Program Annual Report 2018

The Annual Report covers projects and progress of the Program for Calendar Year (CY) 2018. As discussed earlier, this report addresses all of the requirements specified in H&SC 40448.5.1(d). Specifically, this report includes the following required elements:

- A description of the core technologies that the SCAQMD considers critical to ensure attainment and/or maintenance of ambient air quality standards and a description of the efforts made to overcome commercialization barriers;
- Staff analysis of the impact of TAO's Clean Fuels Program on the private sector and on research, development and commercialization efforts by major automobile and energy firms;
- A description of projects funded by the SCAQMD, including a list of recipients, key subcontractors (if known), cofunders, matching state or federal funds, and expected and actual results of each project advancing and implementing clean fuels technology and improving public health;
- The title and purpose of all projects undertaken pursuant to the Clean Fuels Program, the names of the contractors and key subcontractors involved in each project, and the amount of money expended or committed for each project;
- A summary of the progress made toward the goals of the Clean Fuels Program; and
- Funding priorities identified for the next year and relevant audit information for previous, current and future years covered by the report.

During CY 2018, the Clean Fuels Program executed 74 new projects or studies and modified 1 continuing contract, adding additional dollars to sponsor research, development, demonstration and deployment (RD³) projects and technology assessment and transfer contracts for alternative and clean fuel technologies. The SCAQMD contribution to these projects was approximately \$26.9 million, with total project costs exceeding \$85 million, which includes coordinated funding from other governmental

agencies, private sector, academia and research institutions. The \$26.9 million includes \$12.3 million recognized into the Clean Fuels Fund as pass-through funds from project partners to facilitate project administration by the Clean Fuels Program. This \$12.3 million, which is about double the typical amount recognized into Clean Fuels on an average year, included \$3.1 million from a U.S. EPA Airshed Grant for near-zero CNG school buses, with the remaining incoming revenue from a U.S. EPA DERA Grant, CEC and the Ports as stakeholder partners. These projects address a wide range of air quality issues with a diverse mix of advanced technologies. Figure 1 shows the distribution of funding committed from the Clean Fuels Program through executed agreements in 2018.

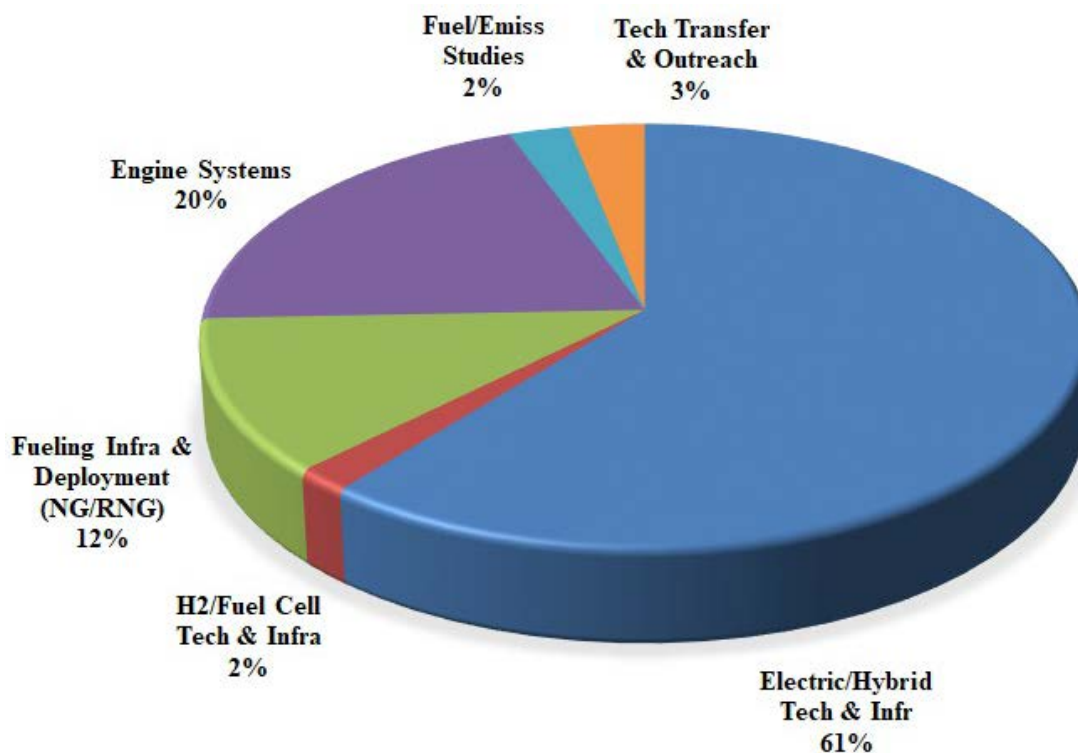


Figure 1: Distribution of Executed Clean Fuels Program Contracts in CY 2018 (\$27 Million)

Executed agreements typically follow the Board awards due to the time necessary to negotiate contracts. During this phase, project awards may be reduced in scope, encounter delays in execution, or may not be contracted at all due to unforeseen difficulties following Board approval. As such, the funding distribution represents a “snapshot-in-time” of the Clean Fuels Program for the CY being reported. During CY 2018, the SCAQMD supported a variety of projects and technologies, ranging from near-term to long-term RD³ activities. This “technology portfolio” strategy provides the SCAQMD the ability and flexibility to leverage state and federal funding while also addressing the specific needs of the Basin. Projects executed in CY 2018 included significant electric and hybrid electric technologies and infrastructure to develop and demonstrate medium-heavy and heavy-duty vehicles in support of transitioning to a zero and near-zero emissions goods movement industry; development

and demonstration of engine systems and technologies for large displacement engines; and continued demonstration and deployment of both electric charging infrastructure and natural gas and renewable natural gas deployment and support. Similar to the last couple of years, the significant project scopes of a few key contracts executed in the CY resulted in higher than average leveraging of Clean Fuels dollars. Typical leveraging has been \$3-\$4 for every \$1 in Clean Fuels funding. In 2017, leveraging was approximately \$1:\$6; in 2018, SCAQMD continued this trend again with nearly \$6 leveraged for every \$1 in Clean Fuels funds.

In addition to the new projects, 21 RD³ and 24 technology assessment and transfer/outreach projects were completed in CY 2018. Summaries of each of the technical projects completed in 2018 are provided in Appendix C of the combined document.

The Clean Fuels Program in CY 2018 continued to leverage other outside opportunities with the SCAQMD securing new awards totaling \$54.5 million from federal, state and local funding. These projects will be included in the Clean Fuels Program or align well with and are complementary to the Clean Fuels Program. Staff continues to aggressively pursue applicable funding opportunities that may focus on GHG reductions, energy efficiency and reductions in petroleum usage, while remaining committed to being a leader in developing advanced technologies that lower criteria and toxic pollutants. Leveraging dollars and applying for funds is more important than ever given the magnitude of required funding identified in the 2016 AQMP that is needed to achieve federal ozone air quality standards.

Clean Fuels Program Plan Update 2019

Every year, staff re-evaluates the Clean Fuels Program to develop an update of the Plan which essentially serves to re-calibrate the technical direction of the Program. The attached 2019 Plan Update for the Clean Fuels Program identifies potential projects to be considered for funding during 2019 and beyond. The proposed projects reflect promising low, near-zero and zero emission technologies and applications that are emerging in the different source categories. This Plan Update includes a number of proposed projects, not all of which are expected to be funded in the current calendar year given the available budget. Some of the proposed projects for 2019 include, but are not limited to:

- Additional deployments of pre-commercial zero emissions trucks with OEMs, with supporting infrastructure;
- Demonstrations of near-zero emissions advanced technology internal combustion engines in heavy-duty trucks;

- Efficiency improvements in natural gas engines and vehicles; and
- Technology transfer from on-road to off-road vehicles and equipment.

Projects not funded in 2019 may be considered for funding in future years.

In addition to identifying proposed projects to be considered for funding, this Plan Update confirms nine key technical areas of highest priority to the SCAQMD. These high priority areas are listed below based on the proposed funding distribution shown in Figure 2:

- Hydrogen and Mobile Fuel Cell Technologies and Infrastructure (especially large-scale refueling facilities);
- Electric and Hybrid Vehicle Technologies and Related Infrastructure (emphasizing electric and hybrid electric trucks and container transport technologies with zero-emission operation);
- Engine Systems (emphasizing heavy-duty alternative and renewable fuel engines for truck and rail applications);
- Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels);
- Fuels and Emission Studies;
- Technology Assessment and Transfer/Outreach;
- Stationary Clean Fuels Technologies (including renewables);
- Emissions Control Technologies; and
- Health Impacts Studies.

It should be noted that these priorities represent the areas where SCAQMD funding is thought to have the greatest impact. In keeping with the diverse and flexible “technology portfolio” approach, however, these priorities may shift during the year to: (1) capture opportunities such as cost-sharing by the state government, the federal government or other entities; (2) address specific technology issues which affect residents within the SCAQMD jurisdiction; (3) incorporate findings from recent studies; or (4) further accelerate technology development, commercialization or market acceptance of promising technologies.

These technical priorities will necessarily be balanced by funding availability and the availability of qualified projects. Revenues from several sources support SCAQMD’s Technology Advancement program. The principal revenue source is the Clean Fuels Program which, under H&SC Sections 40448.5 and 40512, and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile and stationary sources to support program objectives, albeit with constraints on the use of the funds. Grants and cost-sharing revenue contracts from various government agencies, such as CARB, CEC, NREL, U.S. EPA and the U.S. Departments of Energy and Transportation, also support technology advancement efforts.

The Plan Update is the result of a comprehensive planning and review process. This process included consideration of 2016 AQMP control measures as well as CARB's Mobile Source Strategies including the Innovative Clean Transit regulation, San Pedro Bay Ports' Clean Air Action Plan, the Sustainable Freight Action Plan, Governor's Executive Orders (i.e., the 100 Percent Clean Energy Act of 2019), the California Fuel Cell Partnership's 2030 Vision document, and the Los Angeles Cleantech Incubator's Zero Emissions 2028 Roadmap. It also incorporates coordination activities involving outside organizations including consideration of federal, state and local activities and proposed integrated solutions that capture the co-benefits of reduced GHG emissions and criteria pollutants. As part of this process, staff hosted two meetings in September 2018 and January 2019 to solicit input from the SB 98 Clean Fuels Advisory Group, TAAG and other technical experts. During these meetings, the participants reviewed the current Technology Advancement projects and discussed near-term and long-term technologies as potential projects. Staff also attended a variety of conferences and symposiums, such as the ACT Expo in April 2018 and the Electrification 2018 International Conference in August 2018. Additionally, staff attended meetings or workshops with CARB, CEC, the California Fuel Cell Partnership, the California Stationary Fuel Cell Collaborative, California Hydrogen Business Council, and other entities to solicit and incorporate technical areas for potential leveraged funding and project coordination.

Based on discussions with the organizations specified in H&SC Section 40448.5.1 and review of their programs, the projects proposed in this Plan Update do not duplicate any past or present projects. As each individual project is recommended to the Board for funding, staff will continue to coordinate with these organizations to ensure that duplication is avoided and ensure optimal expenditure of Clean Fuels Program funds.

Staff presented the Draft 2019 Clean Fuels Program Plan Update to the Technology Committee on October 19, 2018. Figure 2 graphically depicts the potential distribution of Clean Fuels Program funds which represents priority focus for the nine project areas discussed above.

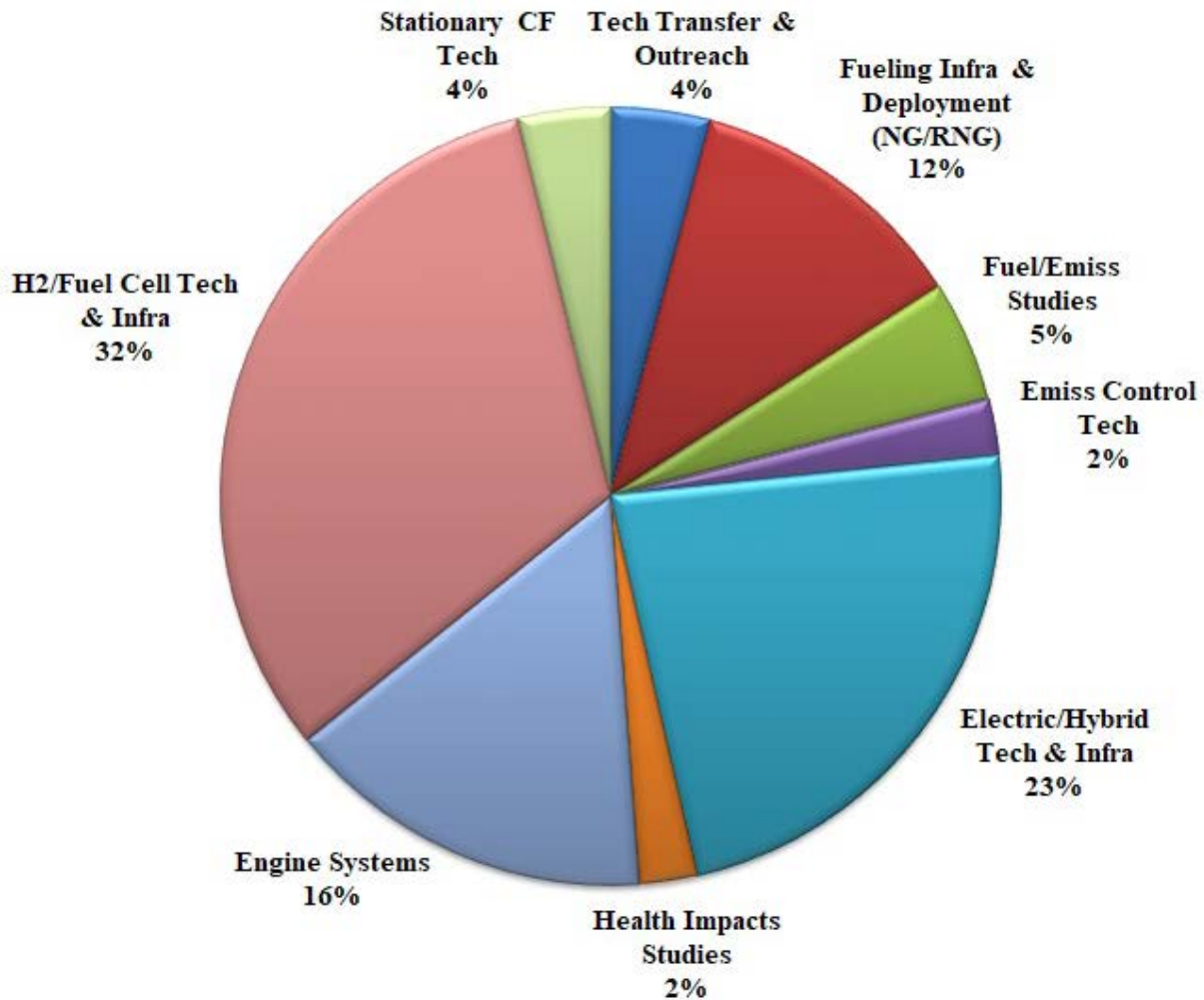


Figure 2: Projected Cost Distribution for Potential Projects in 2019 (\$16.9 million)

The expected actual program expenditures for 2019 will be much less than the total projected program cost since not all projects will materialize. The target allocations are based on balancing technology priorities, technical challenges and opportunities discussed previously and near-term versus long-term benefits with the constraints on available Clean Fuels funding. Specific contract awards throughout 2019 will be based on this proposed allocation, the quality of proposals received and evaluation of projects against standardized criteria and, ultimately, Board approval. At that time, additional details will be provided about the technology, its application, the specific scope of work, the project team capabilities and the project cost-sharing.

H&SC Section 40448.5.1 requires the Board approve the Clean Fuels Annual Report for 2018 and adopt the Clean Fuels Plan Update for 2019 as well as find that the proposed projects do not duplicate programs of other organizations specified in the H&SC provision. As required, the Annual Report and Plan Update have been reviewed by the SB 98 Clean Fuels Advisory Group.

Attachments

- A. Resolution
- B. Qualifications and Expertise of Proposed New Advisory Group Members
- C. TAO Clean Fuels Program 2018 Annual Report and 2019 Plan Update
- D. Board Meeting Presentation

ATTACHMENT A

RESOLUTION NO. 19-

A Resolution of the Governing Board (the Board) of the South Coast Air Quality Management District (SCAQMD) approving the Technology Advancement Office Clean Fuels Program Annual Report for 2018 and adopting the Clean Fuels Program Plan Update for 2019.

WHEREAS, the Board initiated a Clean Fuels Program in 1988 to expedite the demonstration and commercialization of advanced low emission and zero emission technologies and clean fuels; and,

WHEREAS, Health and Safety Code Sections 40404 and 40448.5 require the SCAQMD to coordinate and manage a Clean Fuels Program to accelerate the utilization of clean-burning fuels within the South Coast Air Basin; and,

WHEREAS, Health and Safety Code Section 40512 and Vehicle Code Section 9250.11 authorize funding for the SCAQMD Clean Fuels Program; and,

WHEREAS, SB 98 (Alarcon), chaptered into state law on June 8, 1999, extended the funding authority for the Clean Fuels Program and added administrative provisions under Health and Safety Code Section 40448.5.1 regarding program planning and reporting, including:

- Providing notice to interested parties and the public at least 30 days prior to the annual public hearing at which the Board or a committee of the Board takes action to approve the clean-burning fuels program.
- Consulting with the SB 98 Clean Fuels Advisory Group regarding approval of the required annual report. The results of that consultation shall be provided to the Board prior to its approval of the report.
- Submitting the Clean Fuels Program annual report to the office of the Legislative Analyst and to the committees of the Legislature responsible for improving air quality on or before March 31 of each year that the clean-burning fuels program is in operation; and

WHEREAS, SB 1646 (Padilla), chaptered into state law on September 30, 2008, reauthorized the funding authority for the Clean Fuels Program, removed the sunset of January 1, 2010, and reinstated the five percent administrative cap; and,

WHEREAS, the Technology Advancement Office Clean Fuels Program Plan Update has been reviewed and commented on by both the Technology Advancement Advisory Group and the SB 98 Clean Fuels Advisory Group; and,

WHEREAS, Health and Safety Code Section 40448.5.1 requires that the SCAQMD coordinate and ensure non-duplication of clean fuels-related projects with specified organizations, including the: CARB, CEC, California air quality management districts or air pollution control districts, a public transit district or authority within the geographic jurisdiction of the SCAQMD, San Diego Transit Corporation, North County Transit District, Sacramento Regional Transit District, Alameda-Contra Costa Transit District, San Francisco Bay Area Rapid Transit District, Santa Barbara Metropolitan Transit District, Los Angeles Department of Water and Power, Sacramento Municipal Utility District, Pacific Gas and Electric Company, Southern California Gas Company, Southern California Edison Company, San Diego Gas and Electric Company, or the Office of Mobile Sources within the U.S. Environmental Protection Agency; and

WHEREAS, based on communications with the organizations specified in Health and Safety Code Section 40448.5.1 and review of their programs, the proposed program and projects included in the Technology Advancement Office Clean Fuels Program Plan Update do not duplicate any other past or present program or project funded by those organizations; and,

WHEREAS, notice has been provided to interested parties and the public at least 30 days prior to the annual public hearing at which the Board is to consider approving the clean-burning fuels program; and,

WHEREAS, the SB 98 Clean Fuels Advisory Group has reviewed the Technology Advancement Office Annual Report.

NOW, THEREFORE, BE IT RESOLVED, that the Board finds the Technology Advancement Office Clean Fuels Program Plan Update does not duplicate any past or present programs or projects funded by the above-specified organizations.

BE IT FURTHER RESOLVED, that the Board approves the Technology Advancement Office Clean Fuels Program Annual Report for 2018.

BE IT FURTHER RESOLVED, that the Board adopts the Technology Advancement Office Clean Fuels Program Plan Update for 2019.

BE IT FURTHER RESOLVED, that the Board hereby directs staff to forward the Technology Advancement Office Clean Fuels Program Annual Report 2018 and Plan Update 2019 to the California Legislature and the Legislative Analyst.

Dated:

Denise Garzaro, Clerk of the Boards

ATTACHMENT B

Qualifications and Expertise of Proposed New Advisory Group Members

SB 98 Clean Fuels Advisory Group*

John Budroe, Ph.D., Cal-EPA	Dr. John Budroe is Chief of the Air Toxicology and Risk Assessment Section of the Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency. He received his B.S. degree in Biology and an M.S. degree in Nutrition Science from Drexel University, Philadelphia, PA, and a Ph.D. in Interdisciplinary Toxicology from the University of Arkansas for Medical Sciences, Little Rock, AR. He served as a postdoctoral fellow at the Norris Cancer Hospital of USC, and as a staff scientist at the American Health Foundation in Valhalla, NY. Dr. Budroe has done research on pharmaceuticals and environmental chemical genotoxicity and mechanisms of carcinogenicity. He has 25 years of experience in performing non-cancer and cancer human health risk assessments on environmental chemicals, including diesel exhaust and <i>tert</i> -butyl acetate, in the California Toxic Air Contaminant, Air Toxic Hot Spots and Proposition 65 programs.
Mark Duvall, Ph.D., EPRI	Dr. Mark Duvall is a Director at the Electric Power Research Institute (EPRI). His research activities focus on electric, plug-in hybrid and fuel cell vehicle programs and related advanced infrastructure. He oversees a number of partnerships and collaborations between EPRI and electric utilities, automotive companies, local, state and federal agencies, national laboratories and academic research institutions. Dr. Duvall's work is currently focused on plug-in hybrid electric vehicle research, development and demonstrations in collaboration with major automotive manufacturers, such as the EPRI-DaimlerChrysler PHEV Sprinter Van Program. He is also involved in advanced battery system development and testing, electric charging infrastructure, and the environmental analysis of the air quality and GHG characteristics of plug-in hybrids and other electric transportation technologies. Prior to joining EPRI in 2001, Dr. Duvall held the position of Principal Development Engineer at the Hybrid Electric Vehicle Center at UC Davis. He has worked in the field of advanced transportation since 1990 and has led the development of several prototype advanced vehicles. Dr. Duvall holds a Bachelor of Science degree and a Master's degree in mechanical engineering from UC Davis and a Doctorate degree in mechanical engineering from Purdue University.

**The charter of the CFAG requires membership changes to be approved by the full SCAQMD Board.*

Technology Advancement Advisory Group**

Chris Cannon, Port of Los Angeles	Christopher Cannon is the Director of Environmental Management for the Port of Los Angeles, a position he has held since October 2010. In 2015, he was named chief sustainability officer of the Port. In this role, Mr. Cannon is responsible for balancing commerce and growth with ecological sustainability and social responsibility at the nation's busiest container port. The Environmental Management Division provides full environmental services related to water, soils and sediments, air and biological resources, and is responsible for preparation of environmental impact assessments mandated by state and federal law; special studies involving dredging, noise
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	<p>abatement, water quality and air quality; site restoration, remediation and contamination characterizations; wildlife management; and establishment of policies regarding environmental quality issues. Mr. Cannon first worked at the Port of Los Angeles as a consultant, starting in 2004, where he worked with the Port Environmental Management Division's Air Quality and CEQA groups, supporting the development of key air projects such as the Clean Air Action Plan as well as the Harbor Department's efforts to complete critical EIRs for Port-related projects. In 2008, he helped to develop and served as the Project Manager of the Port's highly successful Clean Truck Program. Mr. Cannon has 21 years of experience in the environmental services industry, working on a range of projects while employed by ENVIRON International Corporation and TRC Environmental Solutions. Mr. Cannon also spent two years as a legislative assistant for environmental policy on the Washington, D.C., staff of U.S. Representative Martin Sabo of Minnesota. Mr. Cannon received a bachelor's degree in Government from Dartmouth College and a law degree from University of California at Berkeley's Boalt Hall School of Law.</p>
Steve Cliff, Ph.D., CARB	<p>Steven Cliff was appointed Deputy Executive Officer at the California Air Resources Board in the summer of 2017. Mr. Cliff is responsible for overseeing programs to reduce emissions from mobile sources and the statewide monitoring and laboratory programs. These include the vehicle emissions testing and compliance programs, mobile source regulations, engine certification programs, the ambient air quality monitoring network, small engine regulations, and incentive programs. Mr. Cliff started at CARB in 2008 where he working on the first climate change scoping plan under AB 32, and led the development of the greenhouse gas cap-and-trade program. In 2014, then Governor Brown appointed Steve Cliff to Caltrans as the inaugural director for sustainability, and in 2016 appointed him back to CARB as Senior Advisor to Chair Mary Nichols. Mr. Cliff earned his Bachelor's and Doctoral degrees in Chemistry at the University of California, San Diego.</p>
Yuri Freedman, Ph.D., SoCalGas	<p>Yuri Freedman has broad experience as a developer and investor in gas infrastructure and power generation assets. In his current role of Senior Director, Business Development, he manages the portfolio of growth initiatives and R&D activities of SoCalGas. Prior to his current role, he held the position of Director, Commercial Development for Sempra LNG and Midstream, and previously held the positions of Director, Infrastructure Investments for Sempra US Gas and Power, and Director, Corporate Mergers & Acquisitions for Sempra Energy. Prior to joining Sempra Energy, Mr. Freedman was a Managing Director on the energy team of Fortress Investment Group and a Vice President in General Electric's energy investment arm, GE Energy Financial Services. He began his career as a geologist working in Arctic regions of Western Siberia on the development and construction of oil and gas pipelines. He holds a MS in Engineering Geology from Moscow University (Russia), a Ph.D. in Environmental Science and Energy Research from the Weizmann Institute of Science (Israel) and a MBA from the Yale School of Management.</p>

Jodean Giese, LADWP	<p>Jodean Giese is the Manager of the Air Quality Group at the Los Angeles Department of Water & Power (LADWP), the largest municipal electric utility in the nation. She has been with LADWP working on air quality regulatory, permitting and compliance issues for 30 years. She is responsible for the review of air quality regulatory proceedings at the U.S. EPA, CARB, and SCAQMD and the air permitting of all equipment at LADWP's facilities, including its four Los Angeles basin power plants. She is responsible for managing LADWP's compliance with federal, state and local air quality stationary and mobile source programs, including Energy Policy Act Alternate Fuel Provider Fleet, GHG Cap-and-Trade, GHG Mandatory Reporting and RECLAIM programs, and manages LADWP's voluntary participation in the Low Carbon Fuel Standard program. She has also developed partnerships with government organizations to promote and implement transportation electrification projects. During her tenure, LADWP reduced its NOx emissions by 90 percent and GHG emissions by 47 percent since 1990. Ms. Giese received her Bachelor of Science degree in Mechanical Engineering at the University of California, Irvine and is a Registered Professional Engineer for the State of California.</p>
Phil Heirigs, WSPA	<p>Phil Heirigs, a native of California, holds a B.S. in Engineering and a M.S. in Chemical Engineering from UCLA and is a licensed Professional Engineer in the state. His professional career began with a short stint in the nuclear power industry, which was followed by nearly seven years with the Mobile Source Division of the California Air Resources Board in El Monte. While at CARB, Mr. Heirigs gained expertise in emissions modeling, developing inputs for the EMFAC model as well as developing emissions benefits estimates for a number of rulemakings (e.g., the OBD II regulations in 1989 and the Low Emission Vehicle regulations in 1990). He ended his tenure with CARB in 1992, at which time he was managing the Alternate Fuels Section in the Mobile Source Division. He then spent 15 years at Sierra Research, a Sacramento-based consulting firm, where he was involved in numerous projects requiring emissions data analysis and emissions modeling. This included assessments of on-road vehicles, off-road vehicles, motor vehicle air toxics, fuel effects on emission and alternative fuels. Mr. Heirigs joined Chevron U.S.A. Inc. in 2007, where his key responsibilities included the evaluation of issues related to the life cycle analysis of transportation fuels, vehicle fuel economy, transportation fuel demand, alternative fuel, and the impact of fuel specification changes on vehicle emissions. He has developed expertise with the GREET model and has reviewed how model results have been used in the Low Carbon Fuel Standard. He served as co-chair of the biennial Coordinating Research Council Workshops on Life Cycle Analysis of Transportation Fuels held at Argonne National Laboratory in 2009, 2011, and 2013, and was a member of the CARB LCFS Expert Workgroup convened in 2010 to assess the indirect effects of transportation fuels. Mr. Heirigs returned to the Strategy, Planning & Technology group of Chevron in April 2018 after spending two years on a rotational assignment in Kazakhstan as an Environmental Advisor and six months with an environmental consulting firm.</p>
Heather Tomley, Port of Long Beach	<p>Heather Tomley is the Acting Managing Director of Planning & Environmental Affairs for the Port of Long Beach. She joined the Port in 2005 and progressively moved into positions of greater responsibility. She</p>

	<p>was named to her current post as Acting Managing Director in September 2018 by the Long Beach Board of Harbor Commissioners, the Port's five-member governing body. She oversees the Divisions of Master Planning, Transportation Planning, and Environmental Planning. In her previous role as Director of Environmental Planning, Ms. Tomley led the Division most directly responsible for the Port's signature environmental programs, such as the 2005 Green Port Policy, and coordinated programs to improve air, water and soil quality, preserve wildlife habitat and integrate sustainability into Port practices. She co-wrote, implemented, and assisted with updates to the San Pedro Bay Ports Clean Air Action Plan (CAAP), which serves as a guideline for programs focused on cleaning Port related air emissions. She is also responsible for developing the Port's Energy Initiative. Ms. Tomley earned her Bachelor of Science degree in Chemistry from California Polytechnic State University, San Luis Obispo, and her Master of Science degree in Environmental Science from the University of North Carolina at Chapel Hill.</p>
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***The charter of the TAAG requires membership changes to be approved by the Board's Technology Committee.*

DRAFT

**TECHNOLOGY ADVANCEMENT OFFICE
CLEAN FUELS PROGRAM
2018 ANNUAL REPORT & 2019 PLAN UPDATE**

**South Coast Air Quality Management District
March 2019**

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*Technology Committee Members (as of 2/15/19)

**Technology Committee Chairman

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*This year's Annual Report and Plan Update
are dedicated to*

Dr. Fritz R. Kalhammer

**Founding Member of the SB 98 Clean Fuels Advisory Group
Serving from 1999 to 2018,
As a scientific community representative.**

Dr. Kalhammer has been an independent consultant in energy and process technology since 1995, prior to which he worked at EPRI and served on the National Research Council Committee. A native of West Germany, he recently relocated permanently to Germany and resigned from the Advisory Group. We thank him for his nearly 20 years of dedicated service and input to our program.

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South Coast Air Quality Management District

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Phil Barroca, Program Supervisor

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Ash Nikravan, Sr. Staff Specialist

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Victor Juan, Air Quality Specialist

Patricia Kwon, Air Quality Specialist

Joseph Lopat, Air Quality Specialist

Krystle Martinez, Air Quality Specialist

Yuh Jiun Tan, Air Quality Specialist

Greg Ushijima, Air Quality Specialist

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Kenny Heralal, Air Quality Inspector II

Alan Wang, Air Quality Inspector I

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EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties. This region, which encompasses all of the South Coast Air Basin plus small portions of the Mojave Desert and Salton Sea Air Basins, historically experiences the worst air quality in the nation due to the natural geographic and atmospheric conditions of the region, coupled with the high population density and associated mobile and stationary source emissions.

Last year marked the 30th year of the Clean Fuels Program. It was in 1988 that SB 2297 (Rosenthal) was signed into law (Chapter 1546). It initially established a “five-year program to increase the use of clean fuels,” but subsequent legislation extended and eventually removed the sunset clause for the Program. That legislation also reaffirmed existence of the Technology Advancement Office (TAO) to administer the Clean Fuels Program. The TAO Clean Fuels Program is an integral part of the SCAQMD’s effort to achieve the significant NO_x reductions called for in the 2016 AQMP because it affords the SCAQMD the ability to fund research, development, demonstration and accelerated deployment of clean fuels and transformative transportation technologies.

Last year also marked another significant milestone for TAO, the 20th year of the Carl Moyer Program. The two programs produce a unique synergy, with the Carl Moyer Program (and other incentive programs) providing the necessary incentives to push market penetration of the technologies developed and demonstrated by the Clean Fuels Program. This synergy enables the SCAQMD to act as a leader in both technology development and commercialization efforts targeting reduction of criteria pollutants.

Using funding received through a \$1 motor vehicle registration fee, the Clean Fuels Program encourages, fosters and supports clean fuels and transportation technologies, such as hydrogen and fuel cells, natural gas engines and infrastructure, battery electric vehicles, plug-in hybrid electric vehicles and related fueling infrastructure including renewable fuels. A key strategy of the Program, which allows significant leveraging of the Clean Fuels funding (typically \$3-\$4 to every \$1 of Clean Fuels funds), is its public-private partnership with private industry, technology developers, academic institutions, research institutions and government agencies. From 1988 to 2018, the Clean Fuels Program leveraged \$321 million into \$1.5 billion in projects.

While SCAQMD aggressively seeks to leverage funds to accomplish more with every dollar, it also strives to be a leader in technology development and commercialization to accelerate the reduction of criteria pollutants. As a result, the TAO Clean Fuels Program has traditionally supported a portfolio of technologies, in different stages of maturity, to provide a continuum of emissions reductions and health benefits over time. This approach provides the greatest flexibility and enhances the region’s chances to achieve the National Ambient Air Quality Standards (NAAQS).

California Code, Health and Safety Code (H&SC) 40448.5(e), calls for the Clean Fuels Program to consider, among other factors, the current and projected economic costs and availability of fuels, the cost-effectiveness of emissions reductions associated with clean fuels compared with other pollution control alternatives, the use of new pollution control technologies in conjunction with traditional fuels as an alternative means of reducing emissions, potential effects on public health, ambient air quality, visibility within the region, and other factors determined to be relevant by the south coast district. The

Legislature recognized the need for flexibility that allows focus on a broad range of technology areas, including cleaner fuels, which can help SCAQMD in achieving its clean air goals.

H&SC 40448.5.1 requires the SCAQMD to prepare, and submit to the Legislative Analyst each year, a Clean Fuels Annual Report and Plan Update. The Clean Fuels Annual Report looks at what the Program accomplished in the prior calendar year (CY) and the Clean Fuels Plan Update looks ahead at proposed projects for the next CY, essentially re-calibrating the technical emphasis of the Program. Preliminary review and comment by SCAQMD's Governing Board, advisory groups, technical experts and other interested parties are incorporated into the final Plan Update, along with the Clean Fuels Annual Report, which are due to the Legislative Analyst by March 31 of every year.

Setting the Stage

The overall strategy of TAO's Clean Fuels Program is based, in large part, on emissions reduction technology needs identified in the Air Quality Management Plan (AQMP) and the SCAQMD Governing Board's directives to protect the health of the approximately 17 million residents (nearly half the population of California) in the South Coast Air Basin (Basin). The AQMP, which is updated approximately every four years, is the long-term regional "blueprint" that relies on fair-share emissions reductions from all jurisdictional levels (e.g., federal, state and local). The 2016 AQMP, which was adopted by the SCAQMD Governing Board in March 2017, is composed of stationary and mobile source emissions reductions from traditional regulatory control measures, incentive-based programs, projected co-benefits from climate change programs, mobile source strategies and reductions from federally regulated sources (e.g., aircraft, locomotives and ocean-going vessels).

The emissions reductions and control measures in the 2016 AQMP rely on a mix of currently available technologies as well as the expedited development and commercialization of lower-emitting mobile and stationary advanced technologies in the Basin to achieve health-based air quality standards. The 2016 AQMP projects that an approximate 45 percent reduction in NO_x is required by 2023 and an additional 55 percent reduction by 2031. Figure 1 illustrates these needed NO_x reductions in the Basin. The majority of these NO_x reductions must come from mobile sources, both on-road and off-road. Notably, the SCAQMD is currently only one of two regions in the nation designated as an extreme ozone nonattainment area (the other is San Joaquin Valley). Ground level ozone (a key component of smog) is created by a chemical reaction between NO_x and volatile organic compound (VOC) emissions in sunlight. This is especially noteworthy because in the South Coast Air Basin the primary driver for ozone formation is NO_x emissions, and mobile sources contribute approximately 88 percent of the NO_x emissions in this region, as shown in Figure 2. Furthermore, NO_x emissions, along with VOC emissions, also lead to the formation of PM_{2.5} [particulate matter measuring 2.5 microns or less in size, expressed as micrograms per cubic meter (µg/m³)].

Basin Total NO_x Emissions

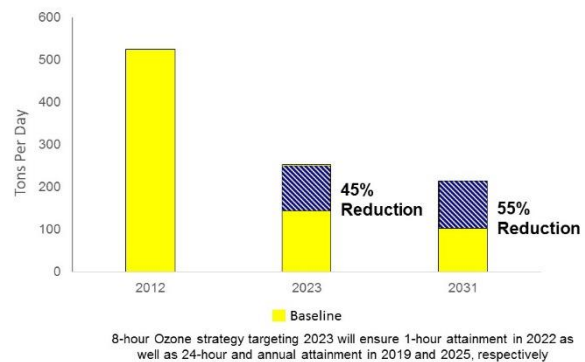


Figure 1: Total NO_x Reductions Needed

Sources of NOx: Mobile and Stationary (2012)

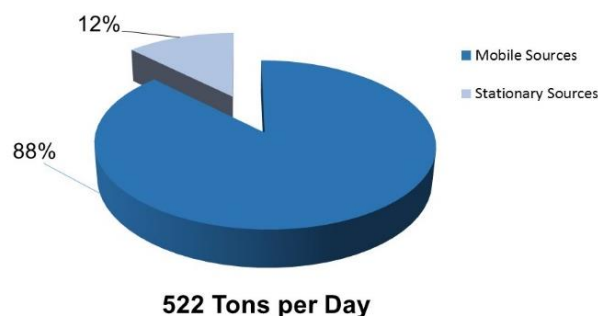


Figure 2: Sources of NOx 2012 Base Year

For the first time, the 2016 AQMP identified a means to achieving the federal standards through regulations and heavy incentives for near-zero and zero emissions technologies that are commercial or nearing commercialization. This strategy however, requires a national, lower heavy-duty truck emissions standard, significant additional financial resources, and accelerated fleet turnover on a massive scale.

Clean Fuels Program

Due to these daunting challenges to reduce NOx and PM2.5 to meet health-based air quality standards, the Clean Fuels Program is more important than ever to encourage and accelerate the advancement and commercialization of clean fuel and transportation technologies, especially with Original Equipment Manufacturers (OEMs).

Figure 3 provides a conceptual design of the wide scope of the Clean Fuels Program and the relationship with incentive programs. As mentioned in the Core Technologies section (page 6), various stages of technology projects are funded not only to provide a portfolio of emissions technology choices but to achieve emissions reduction benefits in the nearer as well as over the longer term. The SCAQMD Clean Fuels Program typically funds projects in the Technology Readiness Level (TRL) ranging between 3-8.

Figure 3: Stages of Clean Fuels Program Funding



Below is a brief summary of the contents of the 2018 Clean Fuels Program Annual Report and 2019 Plan Update. Every Plan Update is reviewed by two advisory groups--the Clean Fuels Advisory Group and the Technology Advancement Advisory Group. These two groups meet approximately every six months to provide expert analysis and feedback on potential projects and areas of focus. They are also briefed and comment on the accomplishments of the prior year in the context of the annual report. The membership of these two bodies is in Appendix A. For more information on this review process, refer to Program Review (page 2). Further review of the Clean Fuels Program is detailed under the Strategy and Impact section (page 15).

2018 Annual Report

In CY 2018, the SCAQMD Clean Fuels Program executed 74 new contracts, projects or studies and modified 1 continuing project adding dollars toward research, development, demonstration and deployment (RD³) projects as well as technology assessment and transfer of alternative fuel and clean fuel technologies.

Table 2 (page 32) lists the 75 projects or studies, which are further described in this report. The SCAQMD Clean Fuels Program contributed nearly \$27 million in partnership with other governmental organizations, private industry, academia and research institutes, and interested parties, with total project costs of more than \$85 million. The \$27 million includes \$12.3 million recognized into the Clean Fuels Fund as pass-through funds from project partners to facilitate project administration by the Clean Fuels Program. This \$12.3 million, which is about double the typical amount recognized into Clean Fuels on an average year, included \$3.1 million from a U.S. EPA Airshed Grant for near-zero CNG school buses, with the remaining incoming revenue from a U.S. EPA DERA Grant, CEC and the Ports as stakeholder partners. Table 3 (page 35) provides information on this outside funding received into the Clean Fuels Fund. Additionally, in CY 2018, the Clean Fuels Program continued to leverage other outside funding opportunities, securing new awards totaling \$54.5 million from federal, state and local funding opportunities. Table 4 (page 35) provides a comprehensive summary of these federal, state and local revenues awarded to the SCAQMD during CY 2018. Similar to the last couple of years, the significant project scope of a few key contracts executed in 2018 resulted in higher than average leveraging of Clean Fuels dollars. Typical leveraging is \$3-\$4 for every \$1 in Clean Fuels funding. In 2017, leveraging was more than \$1:\$6; in 2018, SCAQMD continued this upward trend with nearly \$6 leveraged for every \$1 in Clean Fuels funds. Leveraging dollars and aggressively pursuing funding opportunities are more important than ever given the magnitude of needed funding identified in the 2016 AQMP to achieve federal ozone air quality standards.

The projects or studies executed in 2018 included a diverse mix of advanced technologies. The following core areas of technology advancement for 2018 executed contracts (in order of funding percentage) include:

1. Electric and Hybrid Vehicle Technologies and Related Infrastructure (emphasizing electric and hybrid electric trucks developed by OEMs and container transport technologies with zero emission operations);
2. Engine Systems/Technologies (emphasizing alternative and renewable fuels for truck and rail applications);
3. Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels);
4. Technology Assessment and Transfer/Outreach;
5. Fuel/Emissions Studies;
6. Hydrogen and Mobile Fuel Cell Technologies and Infrastructure; and
7. Emissions Control Technologies.

The pie chart on page 30 shows the distribution by percentage of executed agreements in 2018 across these core technologies.

During CY 2018, the SCAQMD supported a variety of projects and technologies, ranging from near-term to long-term RD³ activities. This “technology portfolio” strategy provides the SCAQMD the ability and flexibility to leverage state and federal funding while also addressing the specific needs of the Basin. Projects included significant electric and hybrid electric technologies and infrastructure to develop and demonstrate medium- and heavy-duty vehicles in support of transitioning to a near-zero and zero emissions goods movement industry; development, demonstration and deployment of large displacement natural gas and ultra-low emissions engines; and demonstration of emissions control

technologies for heavy-duty engines; and natural gas and renewable natural gas deployment and support.

In addition to the 75 executed contracts and projects, 21 RD³ projects or studies and 24 technology assessment and transfer contracts were completed in 2018, as listed in Table 5 (page 54). Appendix C comprises two-page summaries of the technical projects completed in 2018. As of January 1, 2019, there were 106 open contracts in the Clean Fuels Program; Appendix B lists these open contracts by core technology.

In accordance with California H&SC Section 40448.5.1(d), this annual report must be submitted to the state legislature by March 31, 2019, after approval by the SCAQMD Governing Board.

2019 Plan Update

Every year, staff re-evaluates the Clean Fuels Program to develop a Plan Update based on a reassessment of the technology progress and direction for the agency. The Program continually seeks to support the development and deployment of lower-emitting technologies with an increasing collaboration with OEMs. The design and implementation of the Program Plan must balance the needs in the various technology sectors with technology readiness, emissions reduction potential and cofunding opportunities. As the state continues to focus a great deal of its attention to climate change and petroleum reduction goals, the SCAQMD has necessarily remained committed to developing, demonstrating and commercializing technologies that reduce criteria pollutants, specifically NO_x and toxic air contaminants (TACs). Fortunately, many, if not the majority, of these technologies that address the Basin's need for NO_x and TAC reductions also garner reductions in greenhouse gases (GHG) and petroleum use. Due to these "co-benefits," the SCAQMD has been successful in partnering with the state, which allows the Clean Fuels Program to leverage its funding extensively.

To identify technology and project opportunities where funding can make a significant difference in deploying progressively cleaner technologies in the Basin, the SCAQMD employs a number of outreach and networking activities. These activities range from close involvement with state and federal collaboratives, partnerships and industrial coalitions, to the issuance of Program Opportunity Notices to solicit project ideas and concepts as well as issuance of Requests for Information (RFIs) to determine the state of various technologies and the development and commercialization challenges faced by those technologies. Potential development, demonstration and certification projects resulting from these outreach and networking activities are included conceptually within the Draft 2019 Plan Update.

The Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near-term to long-term commercialization, that are intended to provide solutions to the emissions control needs identified in the 2016 AQMP. Given the need for significant reductions over the next five to ten years, near-zero and zero emissions technologies are emphasized. Areas of focus include:

- reducing emissions from port-related activities, such as cargo handling equipment and container movement technologies, including demonstration and deployment of zero emissions drayage trucks;
- developing and demonstrating ultra-low emissions liquid fuel larger displacement engines and zero emissions heavy-duty vehicles;
- developing, demonstrating and deploying advanced (increased efficiency) natural gas engines and vehicles as well as near-zero and zero emissions technologies for high horsepower applications;
- mitigating criteria pollutant increases from renewable fuels, such as renewable natural gas, diesel and hydrogen as well as other renewable fuels and waste streams;

- producing transportation fuels and energy from renewable and waste stream sources;
- developing and demonstrating electric-drive (fuel cell, battery, plug-in hybrid and hybrid) technologies across light-, medium- and heavy-duty platforms; and
- establishing large-scale hydrogen refueling and EV charging infrastructures to help accelerate the introduction of zero emissions vehicles into the market.

Table 6 (page 71) lists the potential projects across nine core technologies by funding priority:

1. Hydrogen/Mobile Fuel Cell Technologies and Infrastructure;
2. Electric/Hybrid Vehicle Technologies and Related Infrastructure (emphasizing electric and hybrid electric trucks and container transport technologies with zero emission operations);
3. Engine Systems/Technologies (emphasizing alternative and renewable fuels for truck and rail applications);
4. Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels);
5. Fuel and Emissions Studies;
6. Stationary Clean Fuels Technologies (including renewables);
7. Health Impacts Studies;
8. Emissions Control Technologies; and
9. Technology Assessment and Transfer/Outreach.

These potential projects for 2019 total \$16.9 million, with anticipated leveraging of more than \$4 for every \$1 of Clean Fuels funding for total project costs of \$73.7 million. Some of the proposed projects may also be funded by revenue sources other than the Clean Fuels Program, especially VOC and NOx mitigation and incentive projects.

CLEAN FUELS PROGRAM

Background and Overview

Program Background

The South Coast Air Basin, which comprises all of Orange County and the urban portions of Los Angeles, San Bernardino and Riverside counties, has the worst air quality in the nation due to a combination of factors, including high vehicle population, high vehicle miles traveled within the region and geographic and atmospheric conditions favorable for photochemical oxidant (smog) formation. This region, which encompasses all of the South Coast Air Basin plus small portions of the Mojave Desert and Salton Sea Air Basins, is home to approximately 17 million people (nearly half the population of California). Due to these confluence of factors which present unique challenges, the state legislature enabled the SCAQMD to implement the Clean Fuels Program to accelerate the implementation and commercialization of clean fuels and advanced mobile source technologies.

California H&SC section 40448.5(e) calls for the Clean Fuels Program to consider, among other factors, the current and projected economic costs and availability of fuels, the cost-effectiveness of emissions reductions associated with clean fuels compared with other pollution control alternatives, the use of new pollution control technologies in conjunction with traditional fuels as an alternative means of reducing emissions, potential effects on public health, ambient air quality, visibility within the region, and other factors determined to be relevant by the south coast district. The Legislature recognized the need for flexibility that allows focus on a broad range of technology areas, including cleaner fuels, which can help SCAQMD in achieving its clean air goals.

Last year marked the 30th year of the Clean Fuels Program. It was in 1988 that SB 2297 (Rosenthal) was signed into law (Chapter 1546). It initially established a “five-year program to increase the use of clean fuels,” but subsequent legislation extended and eventually removed the sunset clause for the Program. That legislation also reaffirmed existence of the Technology Advancement Office (TAO) to administer the Clean Fuels Program. The TAO Clean Fuels Program is an integral part of the SCAQMD’s effort to achieve the significant NO_x reductions called for in the 2016 AQMP. From 1988 to 2018, the Clean Fuels Program leveraged \$321 million into \$1.5 billion in projects. This approach has enabled the SCAQMD to historically leverage public funds with outside investment in a ratio of about \$4 of outside funding to every dollar of Clean Fuels funding.

In 1999, further state legislation was passed which amended the Clean Fuels Program. Specifically, as stated in the H&SC section 40448.5.1(d), the SCAQMD must submit to the Legislature, on or before March 31 of each year, an annual report that includes:

1. A description of the core technologies that the SCAQMD considers critical to ensure attainment and maintenance of ambient air quality standards and a description of the efforts made to overcome barriers to commercialization of those technologies;
2. An analysis of the impact of the SCAQMD’s Clean Fuels Program on the private sector and on research, development and commercialization efforts by major automotive and energy firms, as determined by the SCAQMD;
3. A description of projects funded by the SCAQMD, including a list of recipients, subcontractors, cofunding sources, matching state or federal funds and expected and actual results of each project advancing and implementing clean fuels technology and improving public health;

4. The title and purpose of all projects undertaken pursuant to the Clean Fuels Program, the names of the contractors and subcontractors involved in each project and the amount of money expended for each project;
5. A summary of the progress made toward the goals of the Clean Fuels Program; and
6. Funding priorities identified for the next year and relevant audit information for previous, current and future years covered by the project.

Furthermore, H&SC section 40448.5.1(a)(2) requires the SCAQMD to find that the proposed program and projects funded as part of the Clean Fuels Program will not duplicate any other past or present program or project funded by the state board and other government and utility entities. This finding does not prohibit funding for programs or projects jointly funded with another public or private agency where there is no duplication. Concurrent with adoption and approval of the annual report and plan update every year, the Board will consider the efforts TAO has undertaken in the prior year to ensure no such duplication has occurred then make a finding through a Resolution attesting such.

The following section describes the various panels of external experts that helps review the Clean Fuels Program every year.

Program Review

In 1990, the SCAQMD initiated an annual review of its technology advancement program by an external panel of experts. That external review process has evolved, in response to SCAQMD policies and legislative mandates, into two external advisory groups. The Technology Advancement Advisory Group (one of six standing Advisory Groups that make up the SCAQMD Advisory Council) is made up of stakeholders representing industry, academia, regulatory agencies, the scientific community and environmental impacts. The Technology Advancement Advisory Group serves to:

- Coordinate the SCAQMD program with related local, state and national activities;
- Review and assess the overall direction of the program; and
- Identify new project areas and cost-sharing opportunities.

In 1999, the second advisory group was formed as required by SB 98 (Alarcon). Under H&SC Section 40448.5.1(c), this advisory group must comprise 13 members with expertise in clean fuels technology and policy or public health and appointed from the scientific, academic, entrepreneurial, environmental and public health communities. This legislation further specified conflict-of-interest guidelines prohibiting members from advocating expenditures towards projects in which they have professional or economic interests. The objectives of the SB 98 Clean Fuels Advisory Group are to make recommendations regarding projects, plans and reports, including consulting with regarding approval of the required annual report prior for submittal to the SCAQMD Governing Board. Also in 1999, in light of the formation of the SB 98 Clean Fuels Advisory Group, the SCAQMD also revisited the charter and membership of the Technology Advancement Advisory Group to ensure their functions would complement each other.

On an as-needed basis, changes to the composition of the Clean Fuels Advisory Group are reviewed by the SCAQMD Board while changes to the Technology Advancement Advisory Group are reviewed by the SCAQMD Board's Technology Committee.

The charter for the Technology Advancement Advisory Group calls for approximately 12 technical experts representing industry, academia, state agencies, the scientific community and environmental interests. Traditionally, there has been exactly 12 members on this advisory group, but this year staff is recommending to the Board's Technology Committee that it add representatives from the Ports of Long Beach and Los Angeles, as both entities have been integral players and stakeholders in demonstrating

near-zero and zero emissions technologies in and around the ports and surrounding environmental justice communities.

As needed, current membership changes to both advisory groups will be considered by the SCAQMD Board and its Technology Committee, respectively, as part of consideration of the 2018 Annual Report and 2019 Plan Update. The current members of the SB 98 Clean Fuels Advisory Group and Technology Advancement Advisory Group are listed in Appendix A, with proposed changes duly noted, subject to either SCAQMD Board approval or the Board's Technology Committee, per the advisory group's charters.

The review process of the Clean Fuels Program now includes, at minimum: 1) two full-day retreats of the both Advisory Groups, typically in the summer and winter; 2) review by other technical experts; 3) occasional technology forums or roundtables bringing together interested parties to discuss specific technology areas; 4) review by the Technology Committee of the SCAQMD Board; 5) a public hearing of the Annual Report and Plan Update before the full SCAQMD Board, along with adoption of the Resolution finding that the proposed program and projects funded as part of the Clean Fuels Program will not duplicate any other past or present program or project funded by the state board and other government and utility entities, as required by the H&SC; and 6) finally submittal of the Clean Fuels Program Annual Report and Plan Update to the Legislature by March 31 of every year.

The Need for Advanced Technologies & Clean Fuels

Achieving federal and state clean air standards in Southern California will require emissions reductions from both mobile and stationary sources beyond those expected using current technologies. The need for advanced mobile source technologies and clean fuels is best illustrated by Figure 1 below, which identifies just how far NO_x emissions must be reduced to meet federal standards by 2023 and 2031.

To fulfill near -and long-term emissions reduction targets, the 2016 AQMP relies on a mix of currently available technology as well as the expedited development and demonstration of advanced technologies that are not yet ready for commercial use. Significant reductions are anticipated from implementation of advanced control technologies for both on-road and off-road mobile sources. In addition, the air quality standards for ozone (70 ppb, 8-hour average) and fine particulate matter, promulgated by the U.S. EPA, are projected to require additional long-term control measures for both NO_x and VOC.

The 2016 AQMP's estimate of needed NO_x reductions will require the SCAQMD Clean Fuels Program to encourage and accelerate advancement of clean transportation technologies that are used as control strategies in the AQMP. Of note is another significant milestone in 2018 for TAO, the 20th year anniversary of the Carl Moyer Program. The two programs produce a unique synergy, with the Carl Moyer Program (and other incentive programs) providing the necessary incentives to push market penetration of the technologies developed and demonstrated by the Clean Fuels Program. This synergy enables the SCAQMD to act as a leader in both technology development and commercialization efforts targeting reduction of criteria pollutants. Health studies also indicate a greater need to reduce NO_x emissions and toxic air contaminant emissions. For example, the goal of SCAQMD's Multiple Air

Basin Total NO_x Emissions

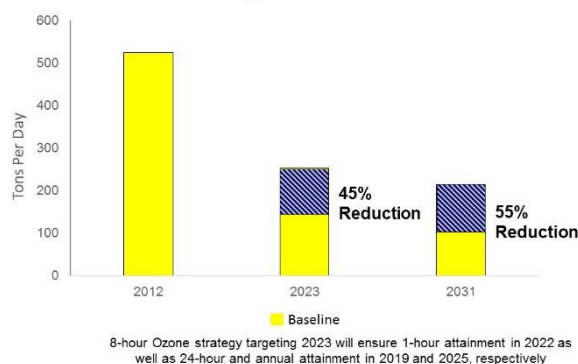


Figure 1: Total NO_x Reductions Needed

Toxics Exposure Study (MATES) IV, completed in 2015, like the prior three MATES efforts, was to assess air toxic levels, update risk characterization, and determine gradients from selected sources. However, MATES IV added ultrafine PM and black carbon monitoring components as well. The study found a dramatic decrease in ambient levels of diesel particulate matter and other air toxics. Diesel PM was still the major driver of air toxics health risks. While the levels and exposures decreased, a revision to the methods used to estimate cancer risk from toxics developed by the California Office of Health Hazard Identification increased the calculated risk estimates from these exposures by a factor of up to three. In 2017, SCAQMD initiated MATES V to update the emissions inventory of toxic air contaminants and modeling to characterize risks, including measurements and analysis of ultrafine particle concentrations typically emitted or converted from vehicle exhaust, and the carcinogenic risk from exposure of air toxics.

Sources of NO_x: Mobile and Stationary (2012)

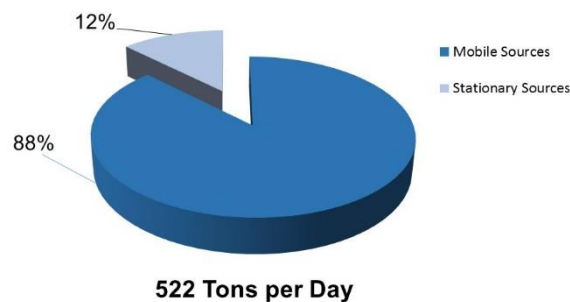


Figure 2: Sources of NO_x 2012 Base Year

In the South Coast Air Basin, the primary driver for ozone formation is NO_x emissions, and mobile sources contribute approximately 88 percent of the NO_x emissions in this region, as shown in Figure 2. Given this contribution, significant cuts in pollution from these sources are needed, therefore the proposed mobile source strategy calls for establishing requirements for cleaner technologies (both near-zero and zero) and deploying these technologies into the fleet, requiring cleaner and renewable fuels, and ensuring continued clean performance in use.

In summary, advanced, energy efficient and renewable technologies are needed not only for attainment, but also to protect the health of those who reside within the SCAQMD's jurisdiction; to reduce long-term dependence on petroleum-based fuels; and to support a more sustainable energy future. Conventional strategies and traditional supply and consumption need to be retooled in order to achieve the federal air quality goals. To help meet this need for advanced, clean technologies, the SCAQMD Board continues to aggressively carry out the Clean Fuels Program and promote alternative fuels through its Technology Advancement Office.

The Clean Fuels Program is intended to assist in the accelerated development and deployment of progressively lower-emitting technologies and fuels through innovative public-private partnership. As previously noted, since its inception, SCAQMD's TAO has cofunded projects in cooperative partnerships with private industry, technology developers, academic and research institutions and local, state and federal agencies. In 2018, with projects initiated with two of the largest heavy-duty truck OEMs on electric trucks, this process is well underway to not only demonstrating these technologies with local fleets, but to scale the commercialization of these technologies.

The following sections describe program funding, provide a 2018 overview and describe core technologies of the Clean Fuels Program.

Program Funding

The Clean Fuels Program is established under California H&SC Sections 40448.5 and 40512 and Vehicle Code Section 9250.11. This legislation establishes mechanisms to collect revenues from mobile and stationary sources to support the program objectives and identifies the constraints on the use of

funds. In 2008, these funding mechanisms were reauthorized under SB 1646 (Padilla), which removed the funding sunset of January 1, 2010, and established the five percent administrative cap instead of the previous cap of two-and-half percent.

Specifically, the Program is funded through a \$1 fee on motor vehicles registered in the SCAQMD. Revenues collected from these motor vehicles must be used to support mobile source projects. Stationary source projects are funded by an emission fee surcharge on stationary sources emitting more than 250 tons of pollutants per year within the SCAQMD. This revenue is typically about \$13.5 million and \$350,000, respectively, every year. For CY 2018, the funds available through each of these mechanisms were as follows:

- | | |
|---|--------------|
| • Mobile sources (DMV revenues) | \$13,644,642 |
| • Stationary sources (emission fee surcharge) | \$344,198 |

The SCAQMD Clean Fuels Program also receives grants and cost-sharing revenue contracts from various agencies, on a project-specific basis, that supplement the SCAQMD program. Historically, such cooperative project funding revenues have been received from CARB, the CEC, the U.S. EPA, the U.S. Department of Energy (DOE) and the U.S. Department of Transportation (DOT). These supplemental revenues depend in large part on the originating agency, its budgetary and planning cycle and the specific project or intended use of the revenues.

Table 3 (page 35) lists the supplemental grants and revenues totaling \$12.3 million for contracts executed in CY 2018.

Table 4 (page 35) lists the federal and state revenue totaling nearly \$54.5 million awarded to the SCAQMD in 2018 for projects that will be part of the overall Clean Fuels Program's RD³ efforts, even if for financial tracking purposes the revenue is recognized into another special revenue fund other than the Clean Fuels Fund (Fund 31).

The final and perhaps most significant funding source can best be described as an indirect source, i.e., funding not directly received by the SCAQMD. This indirect source is the cost-sharing provided by private industry and other public and private organizations. Historically, the Technology Advancement Office has been successful in leveraging its available public funds with \$3 to \$4 of outside funding for each \$1 of SCAQMD funding. For 2018, the Clean Fuels Program leveraged each \$1 to nearly \$6 of outside funding. Similar to last year, this atypical leverage was the result of a few key contracts with significant project scopes executed in 2018, such as the \$31 million project with Daimler Trucks North America, the Southern California Sustainable Freight demonstrations, and the opposed piston engine development project with CALSTART funded in large part by CARB (see the Project Summaries by Core Technologies for more information on these key projects, as well as the project highlights in the Strategy and Impact section starting on page 16). Through these public-private partnership, the SCAQMD has shared the investment risk of developing new technologies along with the benefits of expedited development and commercial availability, increased end-user acceptance, reduced emissions from the demonstration projects and ultimately increased use of clean technologies in the Basin. While the SCAQMD aggressively seeks leverage funds to accomplish more with every dollar, it also strives to be a leader in technology development and commercialization in an effort to accelerate the reduction of criteria pollutants. Leveraging dollars and aggressively applying for additional funds whenever funding opportunities arise is more important than ever given the magnitude of additional funding identified in the 2016 AQMP to achieve federal ozone air quality standards. The SCAQMD's Clean Fuels Program has also avoided duplicative efforts by coordinating and jointly funding projects with major funding agencies and organizations. The major funding partners for 2018 are listed in Table 1 (page 16).

2018 Overview

This report summarizes the progress of the SCAQMD Clean Fuels Program for CY 2018. The SCAQMD Clean Fuels Program cost-shares projects to develop and demonstrate low, near-zero and zero emissions clean fuels and advanced technologies, to push the state-of-the-technology, and to promote commercialization and deployment of promising or proven technologies in Southern California. As noted, these projects are conducted through public-private partnerships with industry, technology developers, academic and research institutes and local, state and federal agencies.

This report also highlights achievements and summarizes project costs of the SCAQMD Clean Fuels Program in CY 2018. During the period between January 1 and December 31, 2018, the SCAQMD executed 74 new contracts/agreements, projects or studies and modified 1 continuing project adding dollars during CY 2018 that support clean fuels and advanced zero, near-zero and low emission technologies. The SCAQMD Clean Fuels Program contribution for these projects was approximately \$27 million, inclusive of \$12.3 million received into the Clean Fuels Fund as cost-share for contracts executed in this reporting period. Total project costs exceed \$85 million. These projects address a wide range of issues with a diverse technology mix including near-term emissions reductions and long-term planning efforts. The report not only provides information on outside funding received into the Clean Fuels Fund as cost-share for contracts executed in this period (summarized in Table 3, page 35), but also funds awarded to the SCAQMD for projects that fall within the scope of the Clean Fuels Program's RD³ efforts but may have been recognized (received) in another special revenue fund for financial tracking purposes (\$54.5 million in 2018, see Table 4). Notably, the SCAQMD was awarded \$44 million by CARB as project partner with Volvo on their Low Impact Green Heavy Transportation Solutions (LIGHTS) Project, which has a total project cost of over \$100 million and will advance and hopefully commercialize electric truck technology. More details on this financial summary can be found later in this report. The SCAQMD will continue to pursue federal, state and private funding opportunities in 2019 to amplify leverage, while acknowledging that support of a promising technology is not contingent on outside cost-sharing and affirming that SCAQMD will remain committed to being a leader in developing advanced technologies that lower criteria pollutants.

Core Technologies

Given the diversity of sources that contribute to the air quality problems in the Basin, there is no single technology or “Silver Bullet” that can solve all of the problems. A number of technologies are required and these technologies represent a wide range of applications, with full emissions benefit “payoffs,” i.e., full commercialization and mass deployment occurring at different times. The broad technology areas of focus – the “Core Technologies” – for the Clean Fuels Program are as follows:

- Hydrogen/Fuel Cell Technologies and Infrastructure (especially large-scale refueling facilities)
- Electric/Hybrid Vehicle Technologies and Infrastructure (emphasizing electric and hybrid electric trucks and container transport technologies with zero emission operation)
- Engine Systems/Technologies (emphasizing heavy-duty alternative and renewable fuel engines for truck and rail applications)
- Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels)
- Fuel and Emissions Studies
- Stationary Clean Fuels Technologies
- Emission Control Technologies
- Health Impacts Studies, and
- Technology Assessment and Transfer/Outreach

At its January 2019 retreat, the Technology Advancement and SB-98 Clean Fuels Advisory Groups asked staff to take another look at these core technologies to determine if they still fit within the strategy of the Clean Fuels Program. That effort will be undertaken in 2019.

The SCAQMD continually seeks to support the deployment of lower-emitting technologies. The Clean Fuels Program is shaped by two basic factors:

1. Low, near-zero and zero emission technologies needed to achieve clean air standards in the Basin; and
2. Available funding to support technology development within the constraints imposed by that funding.

The SCAQMD strives to maintain a flexible program to address dynamically evolving technologies and the latest progress in the state of the technology while balancing the needs in the various technology sectors with technology readiness, emissions reduction potential and cofunding opportunities. Although the SCAQMD program is significant, national and international activities affect the direction of technology trends. As a result, the SCAQMD program must be flexible in order to leverage and accommodate these changes in state, national and international priorities. Nonetheless, while the state and federal governments have in recent years turned a great deal of their attention to climate change, SCAQMD has remained committed to developing, demonstrating and commercializing near-zero and zero emission technologies. Fortunately, many, if not the majority, of technology sectors that address our need for NO_x reductions also garner greenhouse gas (GHG) reductions. Due to these “co-benefits,” the SCAQMD has been successful in partnering with the state and federal government. Even with the leveraged funds, the challenge for the SCAQMD remains the need to identify project or technology opportunities in which its available funding can make a difference in achieving progressively cleaner air in the Basin.

To achieve this, the SCAQMD will need to continue to employ a number of outreach and networking activities as well as evaluate new ways to expand these activities. Typical activities range from intimate involvement with state and federal collaboratives, partnerships and industrial coalitions, to the issuance of Program Opportunity Notices to solicit project ideas and concepts as well as the issuance of Requests for Information to determine the state of various technologies and the challenges faced by those technologies for commercialization. While employing a number of creative outreach and networking activities to try to overcome these challenges, SCAQMD’s TAO annually develops a comprehensive plan to encourage and accelerate the development and demonstration of cleaner technologies. Every year TAO staff re-evaluates the Clean Fuels Program to develop a comprehensive plan (referred to as the 2019 Plan Update within this document) to essentially re-assess the technology progress and direction for the agency.

Historically, mobile source projects have targeted low-emission developments in automobiles, transit buses, medium- and heavy-duty trucks and non-road applications. These vehicle-related efforts have focused on advancements in engine design, electric power-trains and energy storage/conversion devices (e.g., fuel cells and batteries); and implementation of clean fuels (e.g., natural gas, propane and hydrogen) including their infrastructure development. Stationary source projects have included a wide array of advanced low NO_x technologies and clean energy alternatives such as fuel cells, solar power and other renewable and waste energy systems. The focus on recent years has been on near-zero and zero emission technologies to reduce emissions from mobile sources, which contribute to more than 80 percent of the current NO_x emissions in this region. However, while mobile sources include both on- and off-road vehicles as well as aircraft and ships, only the federal government has the authority to regulate emissions from aircraft and ships. The SCAQMD is exploring opportunities to expand its authority in ways that would allow the agency to do more to foster technology development for ship and train activities as well as locomotives as they relate to goods movement.

Specific projects are selected for cofunding from competitive solicitations, cooperative agency agreements and unsolicited proposals. Criteria considered in project selection include emissions reduction potential, technological innovation, potential to reduce costs and improve cost effectiveness, contractor experience and capabilities, overall environmental impacts or benefits, commercialization and business development potential, cost sharing and cost-sharing partners, and consistency with program goals and funding constraints. The core technologies for the SCAQMD programs that meet both the funding constraints as well as 2016 AQMP needs for achieving clean air are briefly described below.

Hydrogen/Mobile Fuel Cell Technologies and Infrastructure

Toyota and Hyundai commercialized light-duty fuel cell vehicles in 2015, Honda started delivering their Fuel Cell Clarity in 2016, and numerous others have plans to commercialize their own in the near future. As automakers continue to collaborate on development efforts (e.g., Honda and GM) and commercialize fuel cell vehicles, in the interim plug-in hybrid technology could help enable fuel cells by using larger capacity batteries until fuel cell components mature. For example, Mercedes-Benz announced production of a plug-in fuel cell model GLC for 2018, with U.S. availability approximately late 2019. However, the greatest challenge for the viability of fuel cell vehicles remains the installation and operations of hydrogen fueling stations. AB 8 requires the CEC to allocate \$20 million annually from the Alternative and Renewable Fuel and Vehicle Technology Program until there are at least 100 publicly accessible hydrogen stations in operation in California. Of the 65 stations funded by CEC and CARB by the end of 2018, partially funded by SCAQMD for those in our region, there are four non-retail and 39 retail operational in California, but most if not all 65 are expected to be operational by the end of 2019 with capacity for more than 10,000 fuel cell vehicles. AB 8 also requires CARB to annually assess current and future FCVs and hydrogen stations in the marketplace. *The Joint Agency Staff Report on Assembly Bill 8: 2018 Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations in California*¹ released in July 2018 reporting on 2018 findings states that there were 4,411 fuel cell vehicles registered in California by May 2018. However, CARB's 2017 Annual Evaluation projects 13,400 FCEVs in California by 2020 and 37,400 by the end of 2023. Additionally, CaFCP's *The California Fuel Cell Revolution, A Vision For Advancing Economic, Social, and Environmental Priorities (Vision 2030)* includes the need for up to 1,000 refueling stations statewide as well as identifying the need to expand the market with heavy-duty technologies and their infrastructure. Clearly, the SCAQMD must continue to support the infrastructure required to refuel retail fuel cell vehicles and the nexus to medium- and heavy-duty trucks including their lower cost fueling infrastructure. To that end, SCAQMD is also actively engaged in finding alternatives to reducing the cost of hydrogen (e.g., large-scale hydrogen refueling stations) and potential longer term fuel cell power plant technology.

Electric/Hybrid Vehicle Technologies and Infrastructure

There has been an increased level of activity and attention on electric and hybrid vehicles due to a confluence of factors, including the highly successful commercial introductions of hybrid passenger vehicles and more recently plug-in electric vehicles (PEVs) by almost all of the automakers and increased public attention on global warming, as well as several Executive Orders issued by Governor Brown over the last couple of years. The Governor's most recent Executive Order, which was issued on January 26, 2018, calls for 5 million ZEVs by 2030.

EV adoption surpassed a huge milestone in 2017, selling more than 360,000 cumulative electric vehicles in California, according to Veloz (formerly the PEV Collaborative), with increasingly more announcements by international automakers (e.g., Mercedes-Benz, Volkswagen-Audi-Porsche,

¹ <http://www.energy.ca.gov/2017publications/CEC-600-2017-011/CEC-600-2017-011.pdf>

Hyundai/Kia, Ford, GM and several growing Chinese brands) on a variety of electrification plans, including some with extended zero emissions range. Joining the trend with Tesla Model 3 to longer electric ranges and faster charging, the 2017 Chevy Bolt EV, with an estimated EPA range of 238 miles and an affordable price after incentives, was a best seller. However, what is now needed is technology transfer to the medium- and heavy-duty vocations. As with hydrogen and fuel cell technologies SCAQMD is actively pursuing research, development and demonstration projects for medium and heavy-duty electric vehicles and their commercialization.

Engine Systems/Technologies

Medium- and heavy-duty on-road vehicles contributed approximately 33 percent of the Basin's NO_x based on 2016 AQMP data. More importantly, on-road heavy-duty diesel trucks account for 33 percent of the on-road mobile source PM_{2.5}, a known TAC. Furthermore, according to CARB, trucks and buses are responsible for 37 percent of California's greenhouse gases and criteria emissions. Furthermore, while MATES IV found a dramatic decrease in ambient levels of diesel PM and other air toxics, diesel PM is still the major driver of air toxics health risks. Clearly, significant emission reductions will be required from mobile sources, especially from the heavy-duty sector, to attain the federal clean air standards.

The use of alternative fuels in heavy-duty vehicles can provide significant reductions in NO_x and particulate emissions. The current NO_x emissions standard for heavy-duty engines is 0.2 g/bhp-hr. The SCAQMD, along with various local, state and federal agencies, continues to support the development and demonstration of alternative-fueled low emission heavy-duty engine technologies, using natural gas, renewable natural gas or hydrogen, renewable diesel and potentially other renewable or waste stream fuels, for applications in heavy-duty trucks, transit and school buses, rail operations, and refuse collection and delivery vehicles to meet future federal emission standards.

In connection with the challenge to develop cleaner engine systems, on June 3, 2016, SCAQMD petitioned the EPA to initiate rulemaking for a lower NO_x national standard for heavy-duty engines. The EPA has since acknowledged a need for additional NO_x reductions through a harmonized and comprehensive national NO_x reduction program for heavy duty on-highway engines and vehicles. The EPA announced the Cleaner Truck Initiative on November 13, 2018, to reduce NO_x emissions from on-road heavy-duty trucks, but the proposed NO_x rule is anticipated in early 2020. Although welcome news, this timing is still too late to help the SCAQMD meet its 2023 federal attainment deadline. So despite progress, commercialization and deployment of near-zero engines are still needed in the interim.

Fueling Infrastructure and Deployment (NG/Renewable Fuels)

A key element for increased use of alternative fueled vehicles and resulting widespread acceptance is the availability of the supporting refueling infrastructure. The refueling infrastructure for gasoline and diesel fuel is well established and accepted by the driving public. Alternative, clean fuels such as alcohol-based fuels, propane, hydrogen, and even electricity are much less available or accessible, whereas natural gas and renewable fuels have recently become more readily available and cost-effective. Nonetheless, to realize emissions reduction benefits, alternative fuel infrastructure, especially fuels from renewable feedstocks, must be developed in tandem with the growth in alternative fueled vehicles. While California appears to be on track to meet its Renewable Portfolio Standard targets of 33% by 2020 and 50% by 2030 as required by SB 350 (chaptered October 2015), the objectives of the SCAQMD are to expand the infrastructure to support near-zero and zero emission vehicles through the development, demonstration and installation of alternative fuel vehicle refueling technologies. However, this category is predominantly targeted at natural gas and renewable natural gas (RNG) infrastructure and deployment (electric and hydrogen fueling are included in their respective technology categories). The Clean Fuels Program will continue to examine opportunities where current incentive funding is either absent or insufficient.

Health Impacts, Fuel and Emissions Studies

The monitoring of pollutants in the Basin is extremely important, especially when focused on (1) a particular sector of the emissions inventory (to identify the responsible technology) or (2) exposure to pollution (to assess the potential health risks). Several studies indicate that areas with high levels of air pollution can produce irreversible damage to children's lungs. This information highlights the need for further emissions and health studies to identify the emissions from high polluting sectors as well as the health effects resulting from these technologies. As we transition to new fuels and forms of transportation, it is important to understand the impacts that changing fuel composition will have on exhaust emissions and in turn on ambient air quality. This area focuses on exhaust emission studies, with a focus on NO_x and PM_{2.5} emissions and a detailed review of other potential toxic tailpipe emissions, for alternative fuel and diesel engines. These types of in-use emissions studies have found significantly higher emissions than certification values for heavy-duty diesel engines, depending on the duty-cycle.

Stationary Clean Fuel Technologies

Given the limited funding available to support low emission stationary source technology development, this area has historically been limited in scope. To gain the maximum air quality benefits in this category, higher polluting fossil fuel-fired electric power generation needs to be replaced with clean, renewable energy resources or other advanced near zero-emission technologies, such as solar, wind, geo-thermal energy, bio-mass conversion and stationary fuel cells. Although combustion sources are lumped together as stationary, the design and operating principles vary significantly and thus also the methods and technologies for control of their emissions. Included in the stationary category are boilers, heaters, gas turbines and reciprocating engines. The key technologies for this category focus on using advanced combustion processes, development of catalytic add-on controls, alternative fuels and technologies and stationary fuel cells in novel applications.

Emissions Control Technologies

This broad category refers to technologies that could be deployed on existing mobile sources, aircraft, locomotives, marine vessels, farm and construction equipment, cargo handling equipment, industrial equipment, and utility and lawn-and-garden equipment. The in-use fleet comprises the majority of emissions, especially the older vehicles and non-road sources, which are typically uncontrolled and unregulated, or controlled to a much lesser extent than on-road vehicles. The authority to develop and implement regulations for retrofit on-road and non-road mobile sources lies primarily with the U.S. EPA and CARB.

Low-emission and clean-fuel technologies that appear promising for on-road mobile sources should be effective at reducing emissions from a number of non-road sources. For example, immediate benefits are possible from particulate traps and selective catalytic reduction (SCR) that have been developed for on-road diesel applications although retrofits are often hampered by physical size and visibility constraints. Clean fuels such as natural gas, propane, hydrogen and hydrogen-natural gas mixtures may also provide an effective option to reduce emissions from some non-road applications. Reformulated gasoline, ethanol and alternative diesel fuels, such as biodiesel and gas-to-liquid (GTL), also show promise when used in conjunction with advanced emissions controls and new engine technologies.

Technology Assessment and Transfer/Outreach

Since the value of the Clean Fuels Program depends on the deployment and adoption of the demonstrated technologies, technology assessment and transfer efforts are essential to its success. This core area encompasses assessment of advanced technologies, including retaining outside technical assistance as needed, efforts to expedite the implementation of low emission and clean fuels

technologies, and coordination of these activities with other organizations. Technology transfer efforts also include support for various clean fuel vehicle incentive programs. The other spectrum of this core technology is information dissemination to educate the end user and increase awareness. While SCAQMD's Public Affairs office oversees and carries out the majority of such education and awareness efforts on behalf of the entire agency, TAO cosponsors and occasionally hosts various technology-related events to complement their efforts. These efforts range from general outreach and partnerships to convening or cosponsoring events. Some examples include: 1) SCAQMD's Making Sense of Sensors International Conference in September 2017; 2) the annual spring ACT Expo, which SCAQMD cosponsors and attends; 3) the inaugural Electrification 2018 International Conference held in summer 2018 at which SCAQMD was a speaker and exhibitor; 4) CALSTART's 2030 Summit on clean transportation this past fall; 5) partnerships for national events such as Drive Electric Week; and 6) hosting tours of SCAQMD's clean fuel vehicle fleet and their respective fueling platforms.

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CLEAN FUELS PROGRAM

Barriers, Scope and Impact

Overcoming Barriers

Commercialization and implementation of advanced technologies come with a variety of challenges and barriers. A combination of real-world demonstrations, education, outreach and regulatory impetus and incentives is necessary to bring new, clean technologies to market. To reap the maximum emissions benefits from any technology, widespread deployment and user acceptance must occur. The product manufacturers must overcome technical and market barriers to ensure a competitive and sustainable business. Barriers include project-specific issues as well as general technology concerns.

Technology Implementation Barriers

- Viable commercialization Path
- Technology price/performance parity with convention technology
- Consumer acceptance
- Fuel availability/convenience issues
- Certification, safety and regulatory barriers
- Quantifying emissions benefits
- Sustainability of market and technology

Project-Specific Issues

- Identifying a committed demonstration site
- Overall project cost and cost-share using public monies
- Securing the fuel
- Identifying and resolving real and perceived safety issues
- Quantifying the actual emissions benefits
- Viability of the technology provider

Other barriers include reduced or shrinking research budgets, infrastructure and energy uncertainties and risks, sensitivity to multi-media environmental impacts and the need to find balance between environmental needs and economic constraints. The SCAQMD seeks to address these barriers by establishing relationships through unique public-private partnerships with key stakeholders; e.g., industry, end-users and other government agencies with a stake in developing clean technologies. Partnerships that involve all the key stakeholders have become essential to address these challenges in bringing advanced technologies from development to commercialization.

Each of these stakeholders and partners contributes more than just funding. Industry, for example, can contribute technology production expertise as well as the experience required for compatibility with process operations. Academic and research institutes bring state-of-the- technology knowledge and testing proficiency. Governmental and regulatory agencies can provide guidance in identifying sources with the greatest potential for emissions reduction, assistance in permitting and compliance issues, coordinating of infrastructure needs and facilitation of standards setting and educational outreach. Often, there is considerable synergy in developing technologies that address multiple goals of public and private bodies regarding the environment, energy and transportation.

Scope and Benefits of the Clean Fuels Program

Since the time needed to overcome barriers can be long and the costs high, both manufacturers and end-users tend to be discouraged from considering advanced technologies. The Clean Fuels Program addresses these needs by cofunding research, development, demonstration and deployment projects to share the risk of emerging technologies with their developers and eventual users.

Figure 3 provides a conceptual design of the wide scope of the Clean Fuels Program. As mentioned in the Core Technologies section, various stages of technology projects are funded not only to provide a portfolio of emissions technology choices but to achieve emission reduction benefits in the nearer as well as over the longer term. The SCAQMD Clean Fuels Program funds projects in the Technology Readiness Level ranging between 3-8.



Figure 3: Stages of Clean Fuels Program Projects

Due to the nature of these advanced technology research, development, demonstration and deployment projects, the benefits are difficult to quantify since their full emission reduction potential may not be realized until sometime in the future, or perhaps not at all if displaced by superior technologies. Nevertheless, a good indication of the impact and benefits of the Clean Fuels Program overall is provided by this selective list of sponsored projects that have resulted in commercialized products or helped to advance the state-of-the-technology.

➤ **CNG Engine Development for Heavy-Duty Vehicles**

- Cummins Westport: low-NOx natural gas ISL G 8.9L and 12L engines (0.2 & 0.02 g/bhp-hr);
- Detroit Diesel: Series 60G (CNG/LNG), Series 50G (CNG/LNG); and
- Clean Air Partners/Power Systems (Caterpillar): 3126B (Dual Fuel), C-10 (Dual Fuel), C-12 (Dual Fuel).
- Kenworth CNG Hybrid Electric Drayage Truck project;

➤ **Fuel Cell Development and Demonstrations**

- Kenworth Fuel Cell Range Extended Electric Drayage Truck project;
- Ballard Fuel Cell Bus (first of its kind);
- Retail light-duty passenger fuel cell vehicles (Toyota Mirai, Hyundai Tucson, Honda Clarity);
- Orange County Transportation Authority GGRF Fuel Cell Bus project;
- SunLine Transit Agency Advanced Fuel Cell Bus projects;
- Commercial stationary fuel cell demonstration with UTC and SoCalGas (first of its kind);
- Orange County Sanitation District hydrogen and combined heat and power generation from biogas using molten carbonate fuel cell technology (as well as their renewable hydrogen station);
- New Flyer and El Dorado Transit Bus at OCTA;
- UPS demonstration of fuel cell delivery trucks; and
- Fuel cell Class 8 trucks under Zero Emission Cargo Transport (ZECT) II Program

➤ **Electric and Hybrid Electric Vehicle Development and Demonstrations**

- Hybrid electric delivery trucks with NREL, FedEx and UPS;
- Siemens Catenary Electric Truck project;

- Proterra battery electric transit bus and fast charging system;
 - South Bay City Council of Governments' electric vehicle project;
 - EVI/UPS electric truck;
 - Plug-in hybrid work truck with Odyne Systems;
 - Plug-in hybrid van and pickup with VIA Motors;
 - BYD all-electric transit bus and trucks (yard hostlers and drayage);
 - LACMTA battery electric buses;
 - Blue Bird Electric School Bus with Vehicle to Grid (V2G) capability;
 - TransPower Electric school buses, including V2G capability;
 - TransPower/US Hybrid battery electric heavy-duty truck and yard hostlers; and
 - PACCAR (Kenworth and Peterbilt) battery-electric and plug-in hybrid electric drayage trucks.
- **Aftertreatment Technologies for Heavy-Duty Vehicles**
- Johnson Matthey and Engelhard trap demonstrations on buses and construction equipment;
 - Johnson Matthey SCRT and SCCRT NO_x and PM reduction control devices on heavy-duty on-road trucks; and
 - Southwest Research Institute development of aftertreatment for medium-duty diesel engines

SCAQMD played a leading or major role in the development of these technologies, but their benefits could not have been achieved without all stakeholders (i.e., manufacturer, end-users and government) working collectively to overcome the technology, market and project-specific barriers encountered at every stage of the research, development, demonstration and deployment process.

Strategy and Impact

In addition to the feedback and input detailed in Program Review (page 2), the SCAQMD actively seeks additional partners for its program through participation in various working groups, committees and task forces. This participation has resulted in coordination of the SCAQMD program with a number of state and federal government organizations, including CARB, CEC, U.S. EPA and DOE/DOT and several of the national laboratories. Coordination also includes the AB 2766 Discretionary Fund Program administered by the Mobile Source Air Pollution Reduction Review Committee (MSRC), various local air districts, National Association of Fleet Administrators (NAFA), major local transit districts, local gas and electric utilities, the San Pedro Bay Ports and several universities with research facilities, including but limited to California State University Los Angeles, Purdue University, Universities of California Berkeley, Davis, Irvine, Los Angeles and Riverside, and University of West Virginia. The list of organizations with which the SCAQMD coordinates research and development activities also includes organizations specified in H&SC Section 40448.5.1(a)(2).

In addition, the SCAQMD holds periodic meetings with several organizations specifically to review and coordinate program and project plans. For example, the SCAQMD staff meets with CARB staff to review research and development plans, discuss project areas of mutual interest, avoid duplicative efforts and identify potential opportunities for cost-sharing. Periodic meetings are also held with industry-oriented research and development organizations, including but not limited to the California Fuel Cell Partnership (CaFCP), the California Stationary Fuel Cell Collaborative, the California Natural Gas Vehicle Partnership (CNGVP), the Electric Power Research Institute (EPRI), Veloz (formerly the PEV Collaborative), the Los Angeles Cleantech Incubator's Regional Transportation Partnership, the California Hydrogen Business Council (CHBC), the SoCalEV Collaborative and the West Coast Collaborative, which is part of the National Clean Diesel Campaign. The coordination efforts with these various stakeholders have resulted in a number of cosponsored projects.

Descriptions of some of the key contracts executed in CY 2018 are provided in the next section of this report. It is noteworthy that most of the projects are cosponsored by various funding organizations and include the active involvement of original equipment manufacturers (OEMs). Such partnerships are essential to address commercialization barriers and to help expedite the implementation of advanced low emission technologies. Table 1 below lists the major funding agency partners and manufacturers actively involved in SCAQMD projects for this reporting period. It is important to note that, although not listed, there are many other technology developers, small manufacturers and project participants who make important contributions critical to the success of the SCAQMD program. These partners are identified in the more detailed 2018 Project Summaries by Core Technologies (beginning page 37) contained within this report.

Table 1: SCAQMD Major Funding Partners in CY 2018

Research Funding Organizations	Major Manufacturers/Providers
California Air Resources Board	Achates Power, Inc.
California Energy Commission	Clean Energy
Department of Energy	Cummins Westport, Inc.
Environment Canada	Daimler Trucks North America
National Renewable Energy Laboratory	Hyster-Yale Group, Inc.
U.S. Environmental Protection Agency	Peterbuilt Motors Company
Local Air Districts & Utilities	Ports of Los Angeles & Long Beach
San Joaquin APCD	Rail Propulsion Systems
Sacramento Metropolitan AQMD	University of California Riverside/CE-CERT
Southern California Edison	Velocity Vehicle Group
Southern California Gas Company	Volvo Technology of America LLC

The following two subsections broadly address the SCAQMD's impact and benefits by describing specific examples of accomplishments including commercial or near-commercial products supported by the Clean Fuels Program in CY 2018. Such examples are provided in the following sections on the Technology Advancement Office's Research, Development and Demonstration projects and Technology Deployment and Commercialization efforts.

Research, Development and Demonstration

Important examples of the impact of the SCAQMD research and development coordination efforts in 2018 include: (a) Clean Fuels Program Strategy for Commercialization of Zero Emissions Drayage Trucks; (b) Demonstration of Near-Zero and Zero Emissions Drayage Trucks and Cargo Handling Equipment; and (c) Development of Alternative Heavy-Duty Diesel Engine Technologies.

Clean Fuels Program Strategy for Commercialization of Zero Emissions Drayage Trucks

The Clean Fuels Program strategy for the commercialization of zero emissions technology in the heavy-duty truck sector emerged around 2010. A key element of the strategy was to engage major original equipment manufacturers (OEMs) in the development and demonstration and eventual commercialization of zero emissions technologies. The heavy-duty truck OEMs have the ability to

design, develop, manufacture, market and service large volumes of vehicles, and large volume is the key to meeting the Basin's emissions reduction goals. SCAQMD initially engaged small startups and vehicle integrators interested in developing and demonstrating zero emissions technologies. Most of the Clean Fuels projects were a small number of proof-of-concept trucks like the first ZECT project that developed and demonstrated battery electric and hybrid electric trucks. The second ZECT project included Kenworth, a major truck OEM, as a partner developing two vehicles—a fuel cell range extended truck and a CNG-hybrid drayage truck.

With an award of approximately \$4.2 million in 2012 from DOE's first ZECT solicitation, coupled with some cost-share from Clean Fuels, SCAQMD contracted with two local EV integrators, TransPower and US Hybrid, to develop and demonstrate a total of 11 zero and near-zero emissions capable heavy-duty drayage trucks (Figure 4), based on two different architectures, consisting of battery electric vehicles and plug-in hybrid electric drivetrains with all electric range capability. These trucks were deployed in real-world drayage operations with fleet partners operating at the Ports of Los Angeles and Long Beach for demonstration up to two years. Vehicle performance and operational data is being collected and analyzed by NREL to evaluate both technical feasibility and market viability of the technologies to support drayage operations.



Figure 4: TransPower & US Hybrid ZECT 1 Trucks

vehicle integrators. The TransPower ElecTruck™ design, which was first deployed in ZECT I successfully performing short-haul drayage operations, was converted with a fuel cell range-extender in ZECT II.

In 2016, SCAQMD received an award of approximately \$23.6 million to develop and demonstrate zero emissions drayage trucks under CARB's California Climate Initiative's Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF). In this project, TransPower teamed up with Peterbilt/TransPower taking the ElecTruck™ design and productionizing it, bringing it a step closer to commercialization. Peterbilt and TransPower are in the process of building 12 battery electric drayage trucks and will demonstrate them across a variety of real-world drayage applications in and around the Ports of Long Beach, Los Angeles, Oakland, Stockton and San Diego.

In August 2014, the SCAQMD received an award of approximately \$9.7 million from DOE for the second ZECT solicitation to develop and demonstrate seven zero and near-zero emissions drayage trucks in real-world drayage operations at the Ports of Los Angeles and Long Beach. Six of the trucks are fuel cell range-extended and the seventh truck is a hybrid electric drive platform using a CNG auxiliary power unit (Figure 5). Project partners included Kenworth, a major OEM, and US Hybrid, Hydrogenics and TransPower,



Figure 5: Kenworth CNG-Hybrid Truck



Figure 6: Kenworth Fuel Cell Truck

Kenworth Trucks, along with BAE Systems and other partners, developed a CNG hybrid and fuel cell powered truck for the ZECT II Project, and it is now in demonstration at the San Pedro ports. Kenworth and BAE Systems developed a plug-in hybrid electric truck (PHET) with a CNG-range extender. The technology is capable of providing a well-balanced blend of all electric and CNG-based hybrid operations. The electric drivetrain is based on BAE Systems HybriDrive® Series (HDS) propulsion system hardware currently used in transit buses. Kenworth will continue to develop that truck platform and bring it closer to commercialization in the SCAQMD's GGRF project.

The fuel cell truck that Kenworth and BAE Systems demonstrated in ZECT 2 (Figure 6) will be further developed with Toyota and their partner the Port of Los Angeles and an award from CARB's California Climate Initiative with SCAQMD cofounding. The project will demonstrate Kenworth's fuel cell drayage truck and will include Toyota's fuel cell integrated into ten of their trucks along with hydrogen infrastructure to support the demonstration.

Another OEM, BYD, a global company with over \$9 billion in revenue and 180,000 employees, including an assembly plant in Lancaster, CA, will develop 25 T9 battery electric drayage trucks for SCAQMD's GGRF project. The T9 truck is optimized to serve near-dock and short regional drayage routes within a range of 100 miles, supported by 300 kWh batteries on hand. The truck is designed to provide similar operating experience compared to equivalent diesel and CNG trucks with matching or exceeding power and torque. The T9 is a Class 8 truck with 80,000 pounds Gross Combined Weight Rating, powered by two 180 kW traction motors. BYD will utilize 200 kW AC on-board charger for these trucks.

In July 2012, SCAQMD was awarded \$1.2 million from the DOE Office of Science to develop a diesel hybrid drayage truck with Volvo Technologies of America (Figure 7). Coupled with cost-share from Clean Fuels, the objective of this project was to develop, build and demonstrate a prototype Class 8 heavy-duty plug-in hybrid drayage truck with significantly reduced emissions and fuel use. Volvo's approach leveraged the group's global knowledge and experience in designing and deploying electro-mobility products. The proprietary hybrid driveline selected for this proof of concept was integrated with multiple enhancements to the complete vehicle



Figure 7: Volvo Hybrid Electric Truck



Figure 8: Volvo's Battery Electric Truck

in order to maximize the emissions and energy impact of electrification. Volvo then teamed up with Siemens and SCAQMD for another project to develop and demonstrate overhead catenary electric trucks. A pantograph that allows a truck to connect to overhead power lines was integrated into the Volvo hybrid. The Volvo truck was successfully demonstrated on the Siemens eHighway in Carson, CA. To bring the hybrid vehicle architecture closer to the commercial stage,

Volvo then joined SCAQMD in the GGRF project funded by CARB and key air districts across California to further develop its hybrid and their emissions reduction technologies.

In October 2018, SCAQMD was awarded \$44.8 million from CARB's California Climate Initiative under their ZANZEFF (zero and near-zero efficient freight facilities) solicitation for our OEM partner Volvo to take the next step in electrification of its heavy duty trucks with the Volvo LIGHTS Project. Along with CARB funds, SCAQMD's Clean Fuels Program provided \$4 million with Volvo and partners providing over \$41 million for a total project cost of nearly \$90 million to develop, demonstrate and commercialize electric heavy-duty trucks. The project will feature a system of moving cargo from the ports to customers with zero emissions. Volvo's battery-electric drayage truck will haul containers from the San Pedro Bay Ports to the Inland Empire where they will be staged by an electric yard tractor and then unpacked by zero emissions forklifts. When the cargo is repacked, a portion of it will be delivered locally by Volvo's battery-electric urban distribution trucks and the remainder will be hauled regionally by another Volvo electric truck. The warehouses will also have solar energy to provide charging via smart charging infrastructure that minimizes grid impacts and cost. At the end of the project, Volvo intends to produce a commercial vehicle.

Daimler Trucks North America LLC (DTNA), the world's leader in heavy-duty truck sales, proposes to implement the Daimler Zero Emission Trucks and EV Infrastructure Project. Under the project, DTNA will develop battery-electric heavy-duty trucks and demonstrate them in real-world commercial fleet operations in and around environmental justice communities within the SCAQMD's jurisdiction to gather data and information from the end-users including performance under specific duty-cycle applications. DTNA will utilize the data and information to move toward commercial production. DTNA will supply ten Class 6 trucks with a gross vehicle weight rating (GVWR) up to 26,000 pounds and ten Class 8 trucks with a GVWR up to 80,000 pounds, including associated EV charging infrastructure. (Figure 9 & 10). Fleet partners, including Penske Leasing, will be identified and the trucks integrated into a range of services and applications to gather operational data to improve each charging and utilization scheme, with seven of the Class 8 trucks to be used in port drayage operations.

Having two of the largest truck manufacturers in the world--Daimler and Volvo--developing heavy-duty electric trucks in the South Coast Air Basin, an effort that was formulated nearly ten years ago, demonstrates the impact and strategy of SCAQMD's Clean Fuels Program. As the trucks that these OEMs are developing and demonstrating become commercial, SCAQMD's involvement will move to facilitate market penetration of these technologies through incentive programs administered by SCAQMD's Technology Advancement Office.

Demonstrate Near-Zero and Zero Emissions Drayage Trucks and Cargo Handling Equipment

Mobile sources in goods movement sectors make up the large portion of NO_x and PM_{2.5} emissions in the Basin. Cargo handling equipment and drayage trucks have been identified as two of the most significant sources with adverse impact on air quality and public health, particularly in Environmental Justice communities adjacent to the Ports of Los Angeles and Long Beach that are disproportionately impacted by goods movement operations and activities, and resultant emissions of ozone precursors, toxic air contaminants and greenhouse gases. In order to mitigate these port-related emissions, SCAQMD strongly supports accelerated deployment of zero and near-zero emissions technologies in cargo transport and handling operations. Both the Ports of Los Angeles and Long Beach have also supported these technologies pursuant to a Zero Emissions Technologies Roadmap with an established plan for technologies to pursue to advance zero emissions technology development.

In partnership with key industry partners, SCAQMD will demonstrate zero and near-zero emissions technologies in cargo handling and drayage applications. Under this project, SCAQMD will demonstrate a zero emissions "top handler" using a wireless charging system in cargo handling operations. In addition, SCAQMD will deploy and demonstrate four drayage trucks, three units using

a natural gas engine certified at the 0.02 g NOx/bhp-hr in a plug-in hybrid platform, and one battery electric platform.

Electric Top Handler Development, Integration and Demonstration

This battery electric cargo handling demonstration project is specifically targeting top handler equipment. With the continued growth of global container cargo, there is a commensurate growth in cargo handling equipment. Top handlers represent the largest size class of mobile cargo handling equipment (CHE) at California ports and therefore represent one of the highest remaining sources of emissions, particularly NOx and PM. Top handlers themselves represent the highest emissions source of mobile equipment per unit, and second highest equipment volumes, at the San Pedro Ports. With more than 360 units, they exceed the emissions of all other equipment for NOx and PM, and are second only to yard hostlers in carbon emissions (Figure 10). And, on a per-unit basis, they actually emit much more pollution given the large size of their engines and high utilization duty cycles.

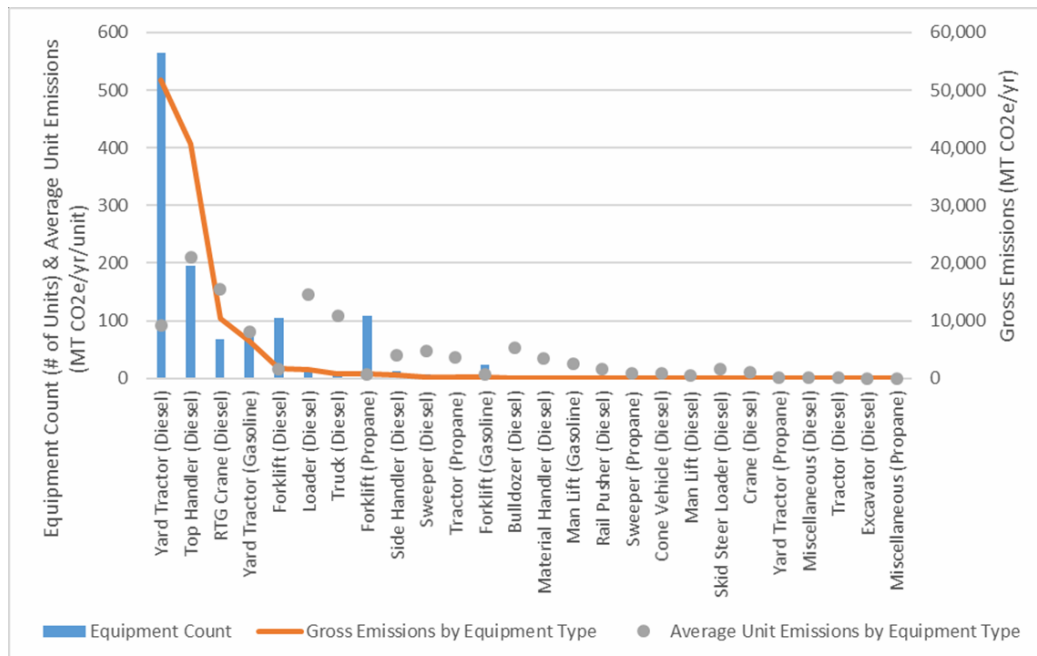


Figure 10: Emissions Profile of Cargo Handling Equipment: Gross Emissions and Average Unit Emissions (Source: PCEVB Research Report)

Hyster-Yale Group, Inc. (HYG), is a world leader in electrified mobile lift equipment. Together with project partners, WAVE and CALSTART, HYG will scale their already prototyped modular electrified power systems to validate and demonstrate a pre-pilot Hyster® 1150-CH electric container handler – known as a Top Handler - at POLA's APM Terminals (Figure 9). The equipment will be driven via electric power and all lifting functions will be powered by electric motors engaging hydraulic pumps. The 384 kWh battery will use high-powered wireless opportunity charging to match terminal operations. While retrofits have been performed, fully electrified off-road heavy cargo handling equipment is not available today in this weight class from a major OEM. The introduction of such equipment represents a major step forward in emissions-free options for port operators. Top Handlers are one of the largest



Figure 9: Hyster Top Handler

contributors of NOx and greenhouse gas emissions from mobile source goods movement equipment used at the San Pedro Bay Ports.

Southern California Advanced Sustainable Freight Demonstration

The zero emissions electric trucks and near-zero natural gas hybrid trucks demonstrated in this project will target the heavy-duty Class 8 truck market--and specifically trucks in short-haul and regional applications, which will are and will continue to one of the highest source of NOx emissions.

These trucks generally operate for port drayage, food and beverage processing and distribution, wholesale and retail and less-than-truckload. In California, they represent only 8 percent of the total truck population of the state, but are responsible for significant NOx and about 18 percent of medium- and heavy-duty greenhouse gas emissions because of their high daily mileage and low fuel economy. In the South Coast Air Basin, it is estimated that the heavy-duty diesel truck and off-road mobile equipment comprise about 200,000 and 150,000 units, respectively. This segment of the truck market is an excellent target for electrification as it covers operation in dense urban areas where pollution is concentrated and has the most negative impact. The average duty cycle is also well suited for this project, with a higher percentage of stops and idle compared to over-the-road Class 8 trucks. Lastly, trucks usually return to the same location at the end of the day, which is convenient for recharging.

In this project, Velocity Vehicle Group, one of the nation's largest truck dealerships, will partner with Freightliner Trucks, the leading truck OEM for Class 8 trucks, and Efficient Drivetrains, Inc. (EDI),

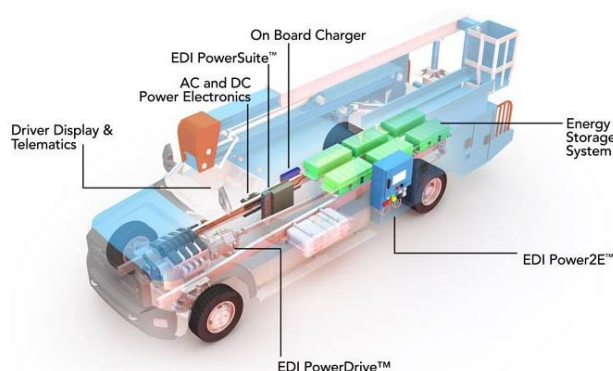


Figure 11: EDI PowerDrive™ Powertrain System

which was recently acquired by Cummins Inc., a global leader and innovator of advanced, high-efficiency plug-in hybrid electric vehicles (PHEVs) and full battery electric vehicle (EV) drivetrains, to develop and demonstrate three PHEV Class 8 drayage trucks and one EV Class 8 drayage truck. EDI's PowerDrive™ 8000 technology is based on an intelligent four-mode, series-parallel drivetrain and provides full performance in both EV and PHEV configurations and no range limitations in PHEV configuration. The EDI PowerDrive™ 8000 EV drivetrain (Figure 11) can drive up to 100 miles in all-

electric and zero emissions operation for short-haul vocations. The range extended plug-in hybrid version, the EDI PowerDrive™ 8000 PHEV drivetrain, delivers up to 35 miles of all-electric driving and a 300-plus mile series-parallel hybrid driving range before refueling is required. Successful demonstration of these technologies could provide significant benefits to the region in the form of reduced NOx and diesel PM emissions from the goods movement sector. The primary project locations are all located in disadvantaged communities. Each of these locations suffers from elevated levels of PM2.5 and other diesel-related emissions connected with goods movement activity. The project will displace activity of diesel-fueled equipment and replace it with technologies that completely eliminate diesel consumption and provide zero or near-zero emissions performance in these communities. In addition, the on-road drayage truck projects will reduce diesel-related emissions in the many other communities throughout the South Coast Air Basin that these trucks travel through.

Development of Alternative Heavy-Duty Diesel Engine Technologies

Heavy-duty vehicles still dominate the total basin-wide NOx and PM emissions. An increase in available heavy-duty engine technologies is needed to reach attainment. This project is intended to

accelerate the adoption and commercial deployment of heavy-duty near-zero emissions technologies by developing and deploying opposed piston engine (OP) technology trucks for long-haul applications. Project partners include Achates Power, Inc. (API), Peterbilt Motors Company, Walmart Logistics, Tyson Foods, Inc., San Joaquin Valley Air Pollution Control District, Sacramento Metropolitan Air Quality Management District, and SCAQMD. Walmart and Tyson Foods will demonstrate the trucks in revenue service regional long haul routes within California, including disadvantaged communities located in Sacramento, San Joaquin Valley, SCAQMD, and San Diego County. CALSTART and API received a grant award under a CARB issued grant solicitation for the Fiscal Year 2016-17 Low Carbon Transportation and Fuels Investments and the Air Quality Improvement Programs for On-Road Advanced Technology Demonstrations. CALSTART, which will administer and provide oversight for this project, has previously worked with numerous manufacturers and fleets engaged in publicly funded programs to develop and deploy near-zero and zero emissions heavy-duty vehicles. SCAQMD's Clean Fuels Program is providing \$1 million in cost-share for this \$15.55 million project.

The OP engine Class 8 demonstration will deploy and validate an engine design that will demonstrate near-zero NO_x levels (0.02 g/bhp-hr), while simultaneously providing equivalent torque and power and a 15-20 percent increase in fuel efficiency compared to existing larger displacement engines. This will be the first demonstration in the U.S. of a high-efficiency and low-NO_x engine powertrain vehicle in Classes 7-8 applications.

Specifically, API will develop four 10.6-liter OP engines (Figure 12), including three aftertreatment systems, and install them into two Class 8 trucks provided by Peterbilt. Peterbilt will also perform integration services and support and perform vehicle calibration and testing. Subsequently, the trucks will be placed in revenue service with Walmart and Tyson Foods for a minimum of three months as part of the field demonstration, which will include the use of renewable diesel.

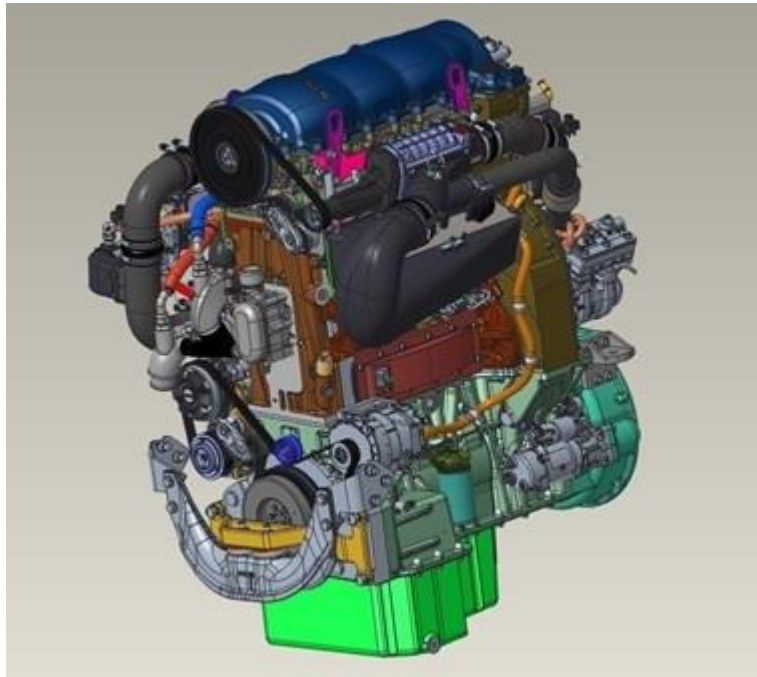


Figure 12: Heavy-Duty Opposed Piston Diesel Engine

The overall goal of the project is to realize near- and long-term certification and commercialization goals and establish higher efficiency, near-zero emissions, liquid fueled engines as an industry standard.

Technology Deployment and Commercialization

One function of the Clean Fuels Program is to help expedite the deployment and commercialization of low and zero emission technologies and fuels needed to meet the requirements of the AQMP control measures. In many cases, new technologies, although considered “commercially available,” require assistance to fully demonstrate the technical viability to end-users and decision-makers.

It is important to note here that SCAQMD's Technology Advancement Office (TAO) administers not only the Clean Fuels Program but also the Carl Moyer Program. While the Clean Fuels Program marked

its 30th year in 2018, the Carl Moyer Program² also achieved a milestone in 2018, marking its 20th year. These two programs produce a unique synergy, with the Carl Moyer Program (and other incentive programs) providing the necessary incentives to push market penetration of the technologies developed and demonstrated by the Clean Fuels Program. This synergy enables the SCAQMD to act as a leader in both technology development and commercialization efforts targeting reduction of criteria pollutants.

This report, however, is required to detail the accomplishments and achievements of the Clean Fuels Program. (1) One example during CY 2018 is the deployment of near-zero emissions CNG school buses, which resulted from SCAQMD's Clean Fuels Program investing in development and demonstration of an ultra-low NOx emissions 8.9-liter natural gas engine. (2) Another example is Clean Fuels Program support of efforts by the California Department of Food & Agriculture, Division of Measurement Standards, Energy Independence Now, the California Fuel Cell Partnership and other hydrogen fuel cell stakeholders towards opening commercial retail hydrogen stations.

Near-Zero Emissions CNG School Buses

The Lower-Emission School Bus Program, which began in 2001, replaces dirty diesel school buses with cleaner alternative fuel school buses and retrofits newer diesel buses with PM traps. To date, SCAQMD has provided more than \$280 million in state and local funds to replace over 1,600 pre-1994 publicly owned diesel school buses and retrofit 3,400 newer diesel school buses.

In 2015, the SCAQMD awarded funding to Cummins Westport Inc. (CWI) to develop and demonstrate an ultra-low NOx emissions 8.9-liter natural gas engine. CARB and U.S. EPA certified the engine at CARB's Optional Low NOx 0.02 gram standard, although actual results were lower than CARB's Optional Low NOx standard. The resulting engine has a reduction of over 90 percent NOx from current federal standards. This was a game changer for this engine class. Since then, CWI has put the engine into full production. To help accelerate market penetration of this engine as well as reduce local exposure to students and the communities they live in, SCAQMD applied for U.S. EPA Airshed grant funding to replace the large Type D diesel school buses with the 8.9-liter natural gas engine, targeting disadvantaged communities or environmental justice (EJ) areas. The SCAQMD was successful in its application and was awarded \$3.1 million.

In May 2018, the SCAQMD Board approved awards to 42 school districts for a total of 206 school buses in the amount of \$35,638,000. Of these awards, 79 school buses for 18 (of the 42) school districts included funds allocated from the U.S. EPA Airshed grant. The U.S. EPA Airshed funds, which were recognized into the Clean Fuels Fund, totaled \$3,104,700, with the Carl Moyer Program (AB 923 funds) providing \$32,533,300. Additionally, school districts had to provide a \$15,000 match for each CNG school bus.

Using CalEPA's CalEnviroScreen mapping tool, which helps identify disadvantaged communities in California, over 76 percent of the school districts that were awarded funds for school bus replacements were in disadvantaged communities. The 2018 awards overall will fund 115 Type D CNG school buses certified to meet the optional low NOx standard of 0.02 g/bhp-hr and 91 Type C propane school buses certified to meet the optional low NOx standard of 0.05 g/bhp-hr for a total of 206 replacements.

²For more information about the Carl Moyer Program and other SCAQMD incentive programs, visit this link: <http://www.aqmd.gov/home/programs/business/business-detail?title=heavy-duty-engines&parent=vehicle-engine-upgrades>

The table below summarizes the grants partially funded with the U.S. EPA Airshed grant:

School District	No. of CNG Buses	U.S. EPA Funds Allocated	School District (Match)
ABC USD	3	\$117,900	\$45,000
Alta Loma SD	2	\$78,600	\$30,000
Bellflower USD	1	\$39,300	\$15,000
Chaffey Joint Union HSD	6	\$235,800	\$90,000
Cypress SD	1	\$39,300	\$15,000
Downey USD	4	\$157,200	\$60,000
Fountain Valley SD	1	\$39,300	\$15,000
Fullerton Joint Union HSD	4	\$157,200	\$60,000
Hemet USD	5	\$196,500	\$75,000
Huntington Beach UHSD	15	\$589,500	\$225,000
Orange USD	1	\$39,300	\$15,000
Placentia-Yorba Linda USD	6	\$235,800	\$90,000
Pupil Transportation Coop.	5	\$196,500	\$75,000
Rialto USD	13	\$510,900	\$195,000
Rim of the World USD	3	\$117,900	\$45,000
Rowland USD	3	\$117,900	\$45,000
San Jacinto USD	2	\$78,600	\$30,000
Upland USD	4	\$157,200	\$60,000
Total	79	\$3,104,700	\$1,185,000

The above 79 buses collectively are estimated to reduce annual emissions of 0.8 tons per year of PM_{2.5}, 17.7 tons per year of NO_x and 4.1 tons per year of CO emissions through replacement with CNG-powered buses (Figure 13). Use of renewable natural gas to fuel these buses can significantly increase the CO₂ reductions also achieved. This project achieves immediate and ongoing improvement in air quality and public health, particularly in communities where the residents are disproportionately impacted by the adverse effects of high levels of emissions, and the U.S. EPA Airshed grant accelerated and increased volume of replacements to eligible EJ communities.



Figure 13: CNG Type D bus certified at 0.02 g/bhp-hr NO_x

The successful implementation of this Program provides less polluting and safer transportation for school children and reduces public exposure to toxic diesel PM emissions. Also, it will reduce air pollution in low-income, high-diesel and high-PM₁₀ exposure areas as well as enhance the objectives of the Environmental Justice and Children's Health Initiatives adopted by the SCAQMD Board. In addition, the reduction of NO_x and PM through deployment of these buses will enable us to take another step forward in meeting the goals called out in our AQMP.

The 2016 AQMP seeks to achieve and maintain all state and federal air quality

standards within attainment deadlines by the earliest date achievable to comply with federal Clean Air Act requirements. In order to meet these goals, the 2016 AQMP includes an integrated control strategy addressing multiple objectives for a more efficient path in meeting all clean air standards. Deployment and commercialization projects like this one will be crucial to help reduce costs for near-zero emission technologies and reduce emissions in impacted areas.

Progress for Hydrogen Infrastructure and Fuel Cell Vehicles

Support for the California Department of Food & Agriculture, Division of Measurement Standards (DMS) Metrology testing is one valuable component to opening commercial retail hydrogen (H₂) stations.

Certificates of Approval allow the specific dispenser design type and model to be placed in service at multiple hydrogen stations throughout the state as an approved device, which has facilitated the growth of retail hydrogen fueling stations.

The National Conference on Weights and Measures has adopted a single accuracy class for hydrogen gas measuring devices, incorporating input from DMS. This single class with increased acceptance tolerance of 5.0 percent and increased maintenance tolerance of 7.0 percent supports the early adoption of expanding accuracy classes by California. With the new tolerances published in the National Institute of Standards and Technology Handbook 44, California can now align its specifications with this new national model standard and facilitate marketplace consistency across the country.

Clean Fuels Program cofunding continues to support DMS for retail hydrogen station equipment performance (HyStEP) testing to ensure safe, fast and complete hydrogen fills before retail stations are open for customers.

Energy Independence Now (EIN) released the Renewable Hydrogen Roadmap³, which explores strategies that are currently most cost-effective and scalable, including production technologies and feedstocks, and lays out the eight high priority policy and stakeholder recommendations for California. The EIN Renewable Hydrogen Roadmap is one of several efforts that helped set the stage for changes to the CARB's LCFS regulation in 2018 that are expected to encourage renewable hydrogen production.

Former California Governor Jerry Brown issued an executive order (#B-48-18 dated 1/16/18) calling for increasing the deployment of zero emission vehicles and developing 200 hydrogen refueling stations. While public cofunding for additional hydrogen stations was not included in the latest California budget, recent changes to CARB's LCFS regulation should help to facilitate larger capacity stations.

For 2018, numerous fuel and hydrogen programs include:

- More than 5,000 consumers and fleets have purchased or leased passenger category fuel cell vehicles from Hyundai, Toyota and Honda since they entered the commercial market starting in 2015. Fuel cell passenger vehicle deployment is dependent on increasing coverage and capacity of retail hydrogen stations.
- Transit agency members have 25 fuel cell electric buses currently in operation and more than 27 additional buses are funded for future deployment.
- There are 39 retail and four other non-retail hydrogen fueling stations in operation in California, an additional 25 in development, with the majority in the Southern California area (Figure 14).

³ Energy Independence Now (EIN) *Renewable Hydrogen Roadmap* <https://einow.org/rh2roadmap/>, May 17, 2018.

- Staff and members of the California Fuel Cell Partnership (CaFCP) continue to conduct outreach and education in communities throughout California.
- The CaFCP, the Governor’s Office of Business and Economic Development (GO-Biz) and the California Energy Commission continue advising and responding to city staff across the state of California to optimize station permitting.
- The CaFCP created and maintains the Station Operational Status System (SOSS) that hydrogen stations in the U.S. use to report status. This data, in turn, feeds real-time information (address, availability, etc.) to consumers through a CaFCP mobile-friendly website and several other apps and systems that support consumers.

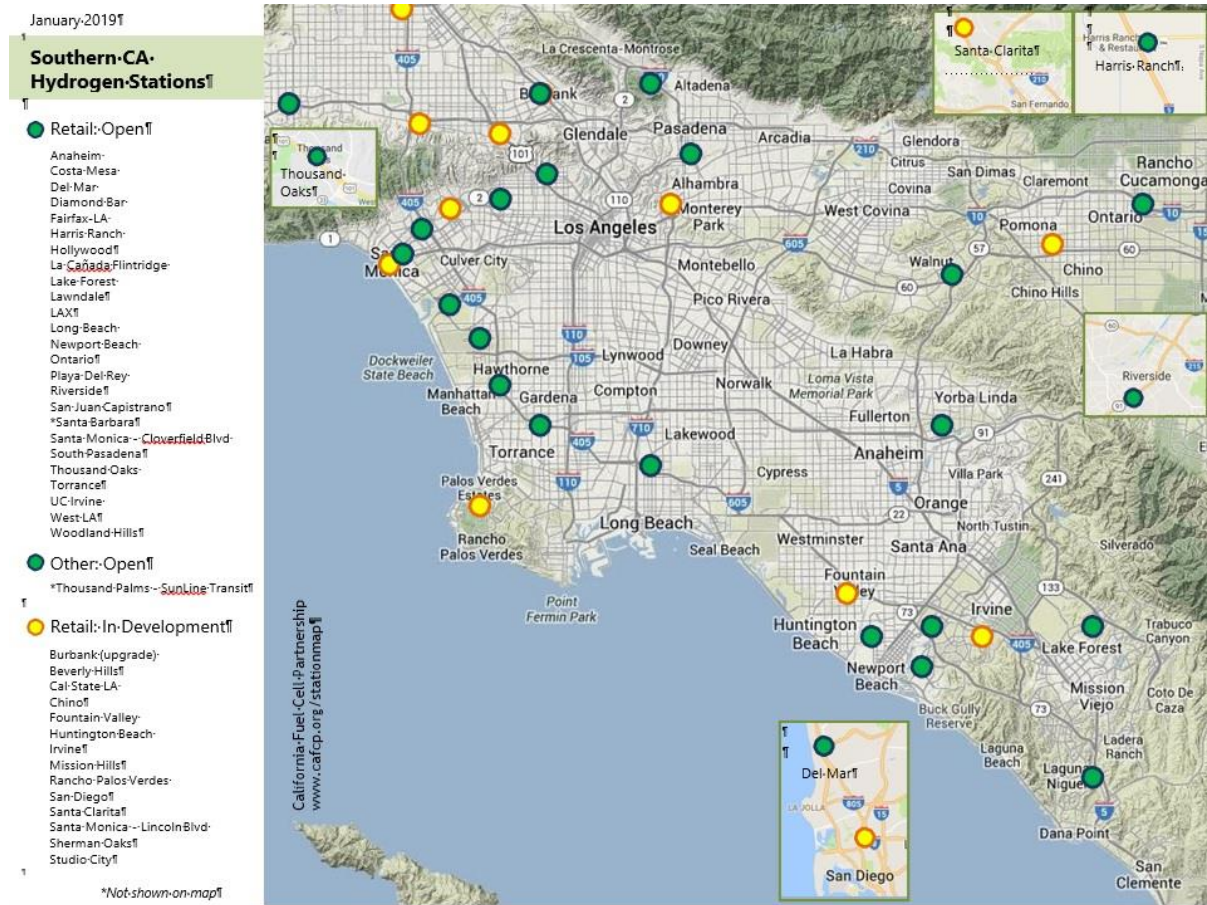


Figure 14: SoCal Hydrogen Stations (Source: CaFCP)

Since 1999, the CaFCP and its public and private members have jointly and separately worked to accelerate many aspects of fuel cell vehicle and hydrogen station development and commercialization. Building on many collaborative documents, such as the CaFCP Roadmap, Bus Roadmap and Medium & Heavy-Duty Fuel Cell Electric Vehicle Action Plan, the CaFCP released *The California Fuel Cell Revolution, A Vision for Advancing Economic, Social and Environmental Priorities*⁴ (Vision 2030) in 2018. These roadmaps and other studies provided technical support for public cofunding of hydrogen fueling stations, including heat maps for placement of stations that can support heavy-duty fuel cell

⁴ CaFCP’s *The California Fuel Cell Revolution, A Vision For Advancing Economic, Social, and Environmental Priorities* (Vision 2030), September 4, 2018.

vehicles. Vision 2030 goes beyond current requirements, but builds on several of Former Governor Brown's Executive Orders.

The CaFCP is pursuing a network of 1,000 hydrogen stations to support a fuel cell vehicle population upwards of 1,000,000 vehicles in 2030, and the CaFCP is developing implementation strategies to enable Vision 2030. While adoption of fuel cell light duty vehicles is dependent on the deployment of hydrogen stations yet station operators find it difficult to execute a successful business plan without the load of increased vehicles. Now access to CARB's LCFS credits by station operators can help them get over the periods of low utilization; and of course more viable stations equals more vehicles. The CaFCP's goals relate to preparing for and supporting market launch through coordinated individual and collective effort. While research by multiple entities will be needed to reduce the cost of fuel cells and improve fuel storage, transport and infrastructure, the CaFCP has played a vital role in demonstrating fuel cell vehicle reliability and durability, fueling infrastructure and storage options, and increasing public knowledge and acceptance of the vehicles and fueling. The next couple of years should continue to achieve huge strides in fuel cell vehicle technology and hydrogen infrastructure growth, supporting a variety of vehicles.

The SCAQMD's 2016 AQMP and Clean Fuels Program 2019 Plan Update identify fuel cells for on- and off-road applications as a core technology for attaining and maintaining cleaner air quality. SCAQMD plans to continue to be a leader in this core technology area.

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CLEAN FUELS PROGRAM

2018 Funding & Financial Summary

The SCAQMD Clean Fuels Program supports clean fuels and technologies that appear to offer the most promise in reducing emissions, promoting energy diversity, and in the long-term, providing cost-effective alternatives to current technologies. In order to address the wide variety of pollution sources in the Basin and the need for reductions now and in the future, using revenue from a \$1 motor vehicle registration fee (see Program Funding on page 4), the SCAQMD seeks to fund a wide variety of projects to establish a diversified technology portfolio to proliferate choices with the potential for different commercial maturity timing. Given the evolving nature of technology and changing market conditions, such a representation is only a “snapshot-in-time,” as reflected by the projects approved by the SCAQMD Board.

As projects are approved by the SCAQMD Governing Board and executed into contracts throughout the year, the finances may change to reflect updated information provided during the contract negotiation process. As such, the following represents the status of the Clean Fuels Fund as of December 31, 2018.

Funding Commitments by Core Technologies

The SCAQMD continued its successful leveraging of public funds with outside investment to support the development of advanced clean air technologies. During the period from January 1 through December 31, 2018, a total of 75 contracts/agreements, projects or studies that support clean fuels were executed or amended, as shown in Table 2 (page 32). The major technology areas summarized are listed in order of funding priority. The distribution of funds based on technology area is shown graphically in Figure 15 (page 30). This wide array of technology support represents the SCAQMD’s commitment to researching, developing, demonstrating and deploying potential near-term and longer-term technology solutions.

The project commitments that were contracted or purchased for the 2018 reporting period are shown below with the total projected project costs:

• SCAQMD Clean Fuels Fund Contribution	\$26,939,641
• Total Cost of Clean Fuels Projects	\$85,373,116

Traditionally every year, the SCAQMD Governing Board approves funds to be transferred to the General Fund Budget for Clean Fuels administration. For 2018, the fund transfer from Clean Fuels to the General Fund was handled through the annual budget process. Thus, when the Board approved the SCAQMD’s FY 2018-19 Budget on June 1, 2018, it included \$1 million from Clean Fuels recognized in TAO’s budget for technical assistance, workshops, conferences, cosponsorships and outreach activities, as well as postage, supplies and miscellaneous costs; another \$285,000 is transferred from the Clean Fuels Fund to Capital Outlays for alternative fuel vehicle purchases for TAO’s Alternative Fuel Demonstration Program as well as supporting vehicle and energy infrastructure. Only the funds committed by December 31, 2018, are included within this report. Any portion of the Clean Fuels Funds not spent by the end of Fiscal Year 2018-19 ending June 30, 2019, will be returned to the Clean Fuels Fund.

Partially included within the SCAQMD contribution are supplemental sponsorship revenues from various organizations that support these technology advancement projects. This supplemental revenue for pass-through contracts executed in 2018 totaling \$12.3 million is listed within Table 3 (page 35). This \$12.3 million, which is about double the typical amount recognized into Clean Fuels on an average

year, included \$3.1 million from a U.S.EPA Airshed Grant for near-zero CNG school buses, with the remaining incoming revenue from a U.S. EPA DERA Grant, CEC and the Ports as stakeholder partners.

Appendix B lists the 106 Clean Fuels Fund contracts that were open and active as of January 1, 2019.

For Clean Fuels executed and amended contracts, projects and studies in 2018, the average SCAQMD contribution is approximately 17 percent of the total cost of the projects, identifying that each dollar from the SCAQMD was leveraged with nearly \$6 of outside investment. The typical leverage amount is \$3-\$4 for every \$1 of SCAQMD Clean Fuels funds, but from 2016 to 2018 there were several significant contracts, significant both in funding and in the impact they hopefully will make in strides toward developing and commercializing clean transportation technologies.

During 2018, the distribution of funds for SCAQMD executed contracts, purchases and contract amendments with additional funding for the Clean Fuels Program totaling approximately \$27 million are shown in the figure below.

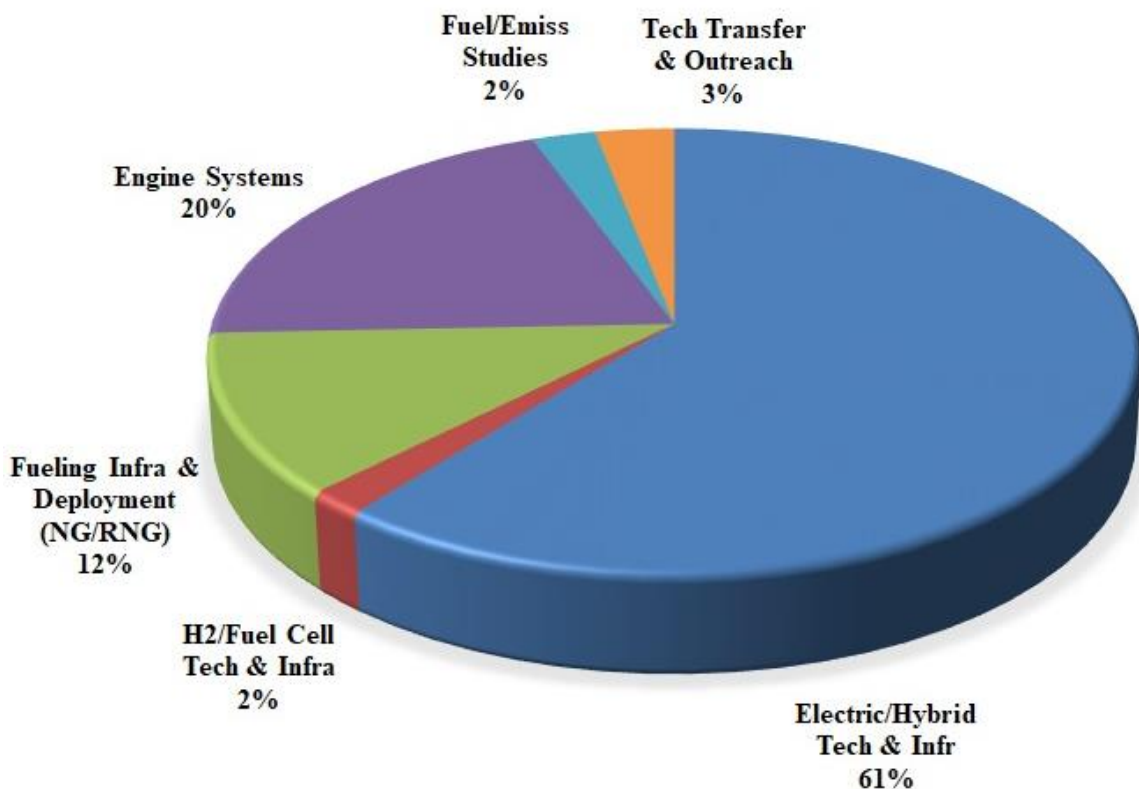


Figure 15: Distribution of Funds for Executed Clean Fuels Projects CY 2018 (\$27M)

Table 2 (page 32) provides a breakdown of this \$27 million in executed contracts. Table 3 (page 35) provides information on outside funding recognized and received into the Clean Fuels Fund (\$12.3 million) for contracts executed in CY 2018. Additionally, the SCAQMD continued to seek funding opportunities and Table 4 (page 35) lists the additional \$54.5 million awarded in 2018 for RD³ projects.

Review of Audit Findings

State law requires an annual financial audit after the closing of each SCAQMD's fiscal year. The financial audit is performed by an independent Certified Public Accountant selected through a competitive bid process. For the fiscal year ended June 30, 2018, the firm of BCA Watson Rice, LLP,

conducted the financial audit. As a result of this financial audit, a Comprehensive Annual Financial Report (CAFR) was issued. There were no adverse internal control weaknesses with regard to SCAQMD financial statements, which include the Clean Fuels Program revenue and expenditures. BCA Watson Rice, LLP, gave the SCAQMD an “unmodified opinion,” the highest obtainable. Notably, the SCAQMD has achieved this rating on all prior annual financial audits.

Project Funding Detail by Core Technologies

The 75 new and continuing contracts/agreements, projects and studies that received SCAQMD funding in 2018 are summarized in Table 2, together with the funding authorized by the SCAQMD and by the collaborating project partners.

Table 2: Contracts Executed or Amended (w/\$) between Jan. 1 & Dec. 31, 2018

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
Hydrogen/Mobile Fuel Cell Technologies and Infrastructure						
18150	California Department of Food & Agriculture, Division of Measurement Standards	Conduct Hydrogen Station Site Evaluations for Hydrogen Station Equipment Performance (HyStEP) Project	06/28/18	02/27/20	100,000	805,000
18158	Alliance for Sustainable Energy, LLC (on behalf of National Renewable Energy Laboratory)	Participate in California Hydrogen Infrastructure Research Consortium H2 @ Scale Initiative	08/31/18	03/30/20	100,000	760,000
19172	Longo Toyota	Three-Year Lease of Two 2018 Toyota Mirai Fuel Cell Vehicles	10/28/18	10/27/21	35,108	35,108
19213	Frontier Energy Inc.	Participate in California Fuel Cell Partnership for CY 2018 and Provide Support for Regional Coordinator	01/01/18	07/01/19	245,000	1,253,491
Electric/Hybrid Technologies and Infrastructure						
14062	Siemens Industry Inc.	Develop and Demonstrate Catenary Zero Emissions Goods Movement System and Develop and Demonstrate Diesel Catenary Hybrid Electric Trucks	07/14/14	12/31/18	430,000	430,000
14184	Clean Fuel Connection Inc.	DC Fast Charging Network Provider	04/04/14	06/30/20	350,000	350,000
18072	Electric Power Research Institute	Study Electrification Options of Energy Services for Environmental Justice Communities and Non-Attainment	06/08/18	06/07/20	150,000	1,558,657
18129	Electric Power Research Institute	Versatile Plug-In Auxiliary Power System Demonstration	06/28/28	06/27/20	125,000	273,000
18151	Rail Propulsion System	Develop and Demonstrate Battery Electric Switcher Locomotive	04/05/18	12/30/19	210,000	925,000
18232	Hyster-Yale Group Inc.	Electric Top-Pick Development, Integration and Demonstration	09/14/18	09/13/21	2,931,805	3,678,008
18277	Velocity Vehicle Group DBA Los Angeles Truck Centers LLC	Southern California Advanced Sustainable Freight Demonstration	09/07/18	03/06/22	3,568,300	4,198,000
18280	Honda of Pasadena	Three-Year Lease of One Honda 2018 Clarity Plug-In Vehicle	02/07/18	02/96/21	18,359	18,359
18287	EVgo Services LLC	Charging Station and Premises Agreement for Installation of One DC Fast Charger at SCAQMD Headquarters	06/27/18	06/26/28	0	0

Table 2: Contracts Executed or Amended (w/\$) between Jan. 1 & Dec. 31, 2018 (cont'd)

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Electric/Hybrid Technologies and Infrastructure (cont'd)

19190	Daimler Trucks North America	Zero Emission Trucks and EV Infrastructure Project	12/18/18	06/20/22	8,230,072	31,340,144
Purchase Order	Zeco Systems, Inc., dba Greenlots	Procure Greenlots SKY Enterprise Software License with Load Management for One Year	12/13/18	12/13/18	55,200	55,200
Direct Pay	Clean Fuel Connection Inc.	Install DC Fast Charger at SCAQMD Headquarters	05/29/18	05/29/18	59,134	59,134

Engine Systems/Technologies

17393	Southwest Research Institute	Development of an Ultra-Low Emissions Diesel Engine for On-Road Heavy-Duty Vehicles	05/30/18	07/31/19	575,000	1,325,000
18194	CALSTART Inc.	Develop and Demonstrate Near-Zero Emissions Opposed Piston Engine	09/30/18	07/31/20	1,000,000	15,550,000
18122	Clean Energy	Southern California Trucking Demonstration of Near-Zero ISX12N Beta Engines	01/05/18	01/04/20	3,459,000	5,995,000
18211	West Virginia University Innovation Corporation	Develop Thermal Management Strategy using Cylinder Deactivation for Heavy-Duty Diesel Engines	06/08/18	06/07/20	250,000	700,000

Fueling Infrastructure and Deployment (NG/Renewable Fuels)

Transfer	California Natural Gas Vehicle Partnership	Participation in the California Natural Gas Vehicle Partnership for Fiscal Years 2018-19 and 2019-20	07/06/18	07/05/20	25,000	170,000
18336	ABC Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	117,900	162,900
18337	Alta Loma School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	78,600	108,600
18344	Bellflower Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18346	Chaffey Joint Union High School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18348	Cypress School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18349	Downey Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	157,200	217,200
18350	Fountain Valley School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18351	Fullerton Joint Union High School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	157,200	217,200
18354	Hemet Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	196,500	271,500

Table 2: Contracts Executed or Amended (w/\$) between Jan. 1 & Dec. 31, 2018 (cont'd)

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Fueling Infrastructure and Deployment (NG/Renewable Fuels) (cont'd)

18355	Huntington Beach Union High School	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	589,500	814,500
18363	Orange Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	39,300	54,300
18364	Placentia-Yorba Linda Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18365	Pupil Transportation Cooperative	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18367	Rialto Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	510,900	705,900
18368	Rim of the World Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	117,900	162,900
18369	Rowland Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	11/02/18	11/30/34	117,900	162,900
18370	San Jacinto Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	78,600	108,600
18374	Upland Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/12/18	11/30/34	157,200	217,200

Fuel/Emissions Studies

18206	University of California Irvine	Assess Air Quality and Greenhouse Gas Impacts of a Microgrid-Based Electricity System	04/06/18	04/05/20	660,000	1,300,000
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Emissions Control Technologies

17367	Southwest Research Institute	Develop and Evaluate Aftertreatment Systems for Large Displacement Diesel Engines	02/28/18	06/30/19	400,000	480,00
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Technology Assessment and Transfer/Outreach

16262	University of California Davis-Institute of Transportation Studies	Support Sustainable Transportation Energy Pathways (STEPS)	01/05/18	01/04/22	240,000	5,520,000
18253	Three Squares Inc.	Identify and Secure a "Futurist" Clean Transportation or Goods Movement Technologies Expert	04/05/18	05/31/18	11,845	11,845
19078	Clean Fuel Connection Inc.	Technical Assistance with Alternative Fuels, EVs, Charging and Infrastructure, and Renewable Energy	09/07/18	09/06/20	100,000	100,000
Direct Pay	Various	Cosponsor 26 Conferences, Workshops & Events plus 5 Memberships	01/01/18	12/31/18	470,118	4,192,470

Table 3: Supplemental Grants/Revenue Received into the Clean Fuels Fund (31) in CY 2018

Revenue Agreement #	Revenue Source	Project Title	Contractor	SCAQMD Contract #	Award Total \$
#17055	US EPA CATI	Develop and Evaluate Aftertreatment Systems for Large Displacement Diesel Engines	Southwest Research Institute	#17367	290,000
#17055	US EPA CATI	Develop and Demonstrate Battery Electric Switcher Locomotive	Rail Propulsion System	#18151	210,000
#18022	Port of Angeles	Develop Ultra-Low Emissions Diesel Engine for On-Road Heavy-Duty Vehicle	Southwest Research Institute	#17393	287,500
#18098	California Energy Commission	Demonstrate Zero and Near-Zero Emissions Drayage Trucks and Cargo Handling Equipment	Clean Energy	#18122	2,845,000
#18098	California Energy Commission	Demonstrate Zero and Near-Zero Emissions Drayage Trucks and Cargo Handling Equipment	Hyster-Yale Nederland BV	#18232	2,564,004
#18098	California Energy Commission	Demonstrate Zero and Near-Zero Emissions Drayage Trucks and Cargo Handling Equipment	Velocity Vehicle Group	#18277	2,985,995
#19165	US EPA Air Shed Grant	Near-Zero CNG School Buses	18 School Districts	Various	3,104,700
Table 3 lists revenue <u>received</u> by SCAQMD into the Clean Fuels Fund (31) <u>only</u> if the SCAQMD pass-through contract was executed during the reporting CY (2018).					\$12,287,199

Table 4: Summary of Federal, State and Local Funding Awarded or Recognized in CY 2018

Awarding Entity or Program	Award(*) or Board Date	Purpose	Contractors	Award Total/ Fund
U.S. EPA Air Shed Grant	*07/09/18	Near-Zero Emissions School Bus Replacement Project	18 School Districts	\$3,184,875 Fund 31
U.S. EPA Air Shed Grant	*7/09/18	Battery Electric Shuttle Bus Replacement Project	Phoenix Motorocars #19166	\$3,184,875 Fund 31
San Pedro Bay Ports	07/06/18	Develop and Demonstrate Zero Emissions Trucks and EV Infrastructure	Daimler Trucks North America #19190	\$2,000,000 Fund 61
U.S. EPA FY 18 Section 105 CATI	*09/14/18	Develop and Demonstrate Zero Emissions Trucks and EV Infrastructure	Daimler Trucks North America #19190	\$500,000 Fund 61

**Table 4: Summary of Federal, State and Local Funding Awarded or Recognized in CY 2018
(cont'd)**

Awarding Entity or Program	Award(*) or Board Date	Purpose	Contractors	Award Total/ Fund
Schneider National, Inc.	*10/23/18	Install Air Filtration Systems at Schools	IQ Air North America #19169	\$350,000 Fund 75
Old Dominion Freight Line, Inc.	*09/27/18	Install Air Filtration Systems at Schools	IQ Air North America #19170	\$225,000 Fund 75
CARB ZANZEFF	*10/08/18	Zero and Near-Zero Emissions Freight Facilities (ZANZEFF) Project: Develop and Demonstrate Zero Emissions Heavy-Duty Trucks, Freight Handling Equipment, EV Infrastructure and Renewable Energy (LIGHTS Project including Data Analysis)	Volvo Technology of America, LLC/ University of California Riverside/CE-CERT #TBD	\$44,839,686 Fund 67
Rainbow Transfer/Recycling, Inc.	11/02/18	Install Air Filtration Systems at Schools	IQ Air North America #19188	\$250,000 Fund 75
<i>Table 4 provides a comprehensive summary of revenue awarded to or recognized by SCAQMD during the reporting CY (2018) if it will be considered part of, or complementary to, the Clean Fuels Program, regardless of whether the SCAQMD pass-through contract has been executed.</i>				\$54,534,436

Project Summaries by Core Technologies

The following represents summaries of the contracts, projects and studies executed, or amended with additional dollars, in CY 2018. They are listed in the order found in

Table 2 by category and contract number. As required by H&SC Section 40448.5.1(d), the following project summaries provide the project title; contractors and if known at the time of writing key subcontractors or project partners; SCAQMD cost-share, cosponsors and their respective contributions; contract term; and a description of the project.

Hydrogen/Mobile Fuel Cell Technologies and Infrastructure

18150: Conduct Hydrogen Station Site Evaluations for Hydrogen Station Equipment Performance (HyStEP) Project

Contractor: California Dept. of Food & Agriculture, Division of Measurement Standards	SCAQMD Cost-Share	\$ 100,000
	Cosponsors	
	California Fuel Cell Partnership	100,000
	California Air Resources Board (cash & in-kind)	405,000
	California Energy Commission	100,000
	Other Partners (cash and/or in-kind)	100,000
Term: 06/28/18 – 02/27/20	Total Cost:	\$ 805,000

The HyStEP equipment, which is owned by Sandia National Laboratories, was assembled, mounted on a trailer by Powertech, and was validation tested by NREL in Phase I, which was separately funded. Phase II, California implementation, overseen by a California task force, includes representatives from CARB, CEC, Division of Measurement Standards (DMS), the California Fuel Cell Partnership (CaFCP), SCAQMD, Toyota, Mercedes, BMW, Air Liquide, NREL and Sandia. The equipment validation device will be loaned for the California implementation portion. The total cost for Phase II is estimated to be approximately \$805,000, with \$100,000 each in cofunding already committed from both the CaFCP and the CEC. CARB is contributing \$100,000 for a tow vehicle and in-kind assistance for a staff Air Resources Engineer. Successful testing in California may ultimately lead to certification and/or listing by nationally recognized testing laboratories, reduced time for hydrogen station commissioning and increased deployment of zero emissions vehicles in our region. Some automakers may still choose to conduct their own additional hydrogen station test program, especially in the early years of station development.

18158: Participate in California Hydrogen Infrastructure Research Consortium H2 @ Scale Initiative

Contractor: Alliance for Sustainable Energy, LLC (on behalf of National Renewable Energy Laboratory)	SCAQMD Cost-Share	\$ 100,000
	Cosponsors	

	National Renewable Energy Laboratory	540,000
	California Energy Commission	100,000
	GO-Biz/California Governor's Office of Economic Development (in-kind)	20,000
Term: 08/31/18 – 03/30/20	Total Cost:	\$ 760,000

U.S. leadership for hydrogen technologies is rooted in California, a location for implementing many DOE H2@Scale pathways, such as reducing curtailment and stranded resources, reducing petroleum use and emissions, and developing and creating jobs. The technical research capability of the national laboratories can be used to assist California in decisions and evaluations, as well as to verify solutions to problems impacting the industry. Because these challenges cannot be addressed by one agency or one laboratory, a hydrogen research consortium has been organized to combine and collaborate. The proposed joint tasks include data collection from operational stations, component failure fix verification (i.e., nozzle freeze lock), analysis of data to optimize new fueling methods for medium- and heavy-duty applications, and ensuring hydrogen quality is maintained. These projects will also be managed in detail (e.g., schedule, budget, roles, milestones, tasks, reporting requirements) in a hydrogen research consortium project management plan. The joint application to the DOE H2 @ Scale Program to leverage national lab capabilities was not fully funded, so CARB and CEC also have separate agreements for those tasks.

19172: Three-Year Lease of Two 2018 Toyota Mirai Fuel Cell Vehicles

Contractor: Longo Toyota	SCAQMD Cost-Share	\$ 35,108
Term: 10/28/18 – 10/27/21	Total Cost:	\$ 35,108

The SCAQMD operates a number of alternative fuel vehicles, including electric vehicles, fuel cell vehicles and plug-in hybrid-electric vehicles. The primary objective of having these vehicles as part of the SCAQMD demonstration fleet is to continue to support the use of zero emissions vehicles. The Toyota Mirai fuel cell vehicles provide about 312 miles total range refueling with gaseous hydrogen.

19213: Participation in California Fuel Cell Partnership for CY 2018 and Provide Support for Regional Coordinator

Contractor: Frontier Energy, Inc. (formerly BKi)	SCAQMD Cost-Share	\$ 245,000
	Cosponsors	
	7 automakers, 4 public agencies, 2 industry stakeholders, 28 Full & Associate Members	\$ 1,008,491
Term: 01/01/18 – 07/01/19	Total Cost:	\$ 1,253,491

In April 1999, the CaFCP was formed with eight members; SCAQMD joined and has participated since early 2000. The CaFCP and its members are demonstrating and deploying fuel cell passenger cars and transit buses with associated hydrogen fueling infrastructure in California. Since the CaFCP is a voluntary collaboration, each participant contracts with Frontier Energy Inc. (previously Bevilacqua-Knight, Inc. or BKi) for their portion of the CaFCP's administration. In 2018, SCAQMD contributed

\$70,000 for Executive membership, \$50,000 to continue support for a Regional Coordinator and \$125,000 for support of fuel cell truck and bus codes and standards coordination, such as SAE J2600, J2601-2 revision sponsorship, first responder training updates, and truck and bus task force facilitation and outreach.

Electric/Hybrid Technologies and Infrastructure

14062: Develop and Demonstrate Catenary Zero Emissions Goods Movement System and Develop and Demonstrate Diesel Catenary Hybrid Electric Trucks

Contractor: Siemens Industry Inc.	SCAQMD Cost-Share	\$ 430,000
Term: 07/14/14 – 12/31/18	Total Cost:	\$ 430,000

Siemens Industry Inc. designed and demonstrated a catenary truck technology, eHighway, in Germany on a European truck chassis. For this project with SCAQMD, Siemens brought the eHighway technology to Southern California with their partner Volvo and developed and demonstrated a catenary plug-in hybrid electric truck technology. The hybrid drive system extended the operating range of the truck beyond the all-electric range of the catenary system, enabling the truck to perform regional drayage operations and bridge gaps in catenary infrastructure as it is deployed on a regional level. The additional costs added to the contract through this contract modification were to cost-share safety barriers required by the City of Carson for the above-ground foundations for the catenary poles. Further details on this catenary truck technology project are available in the Key Projects Completed section.

14184: DC Fast Charging Network Provider

Contractor: Clean Fuel Connection Inc.	SCAQMD Cost-Share	\$ 350,000
Term: 04/04/14 – 06/30/20	Total Cost:	\$ 350,000

This contract was previously funded using CEC funds recognized into the Clean Fuels Fund (31). However in June 2018, CEC issued a stop work order and reversed a previous decision to allow for installation costs to be funded by the CEC grant. Staff received approval by the Governing Board in October 2018 to substitute Clean Fuels funds for CEC revenue funds towards installation costs. In June and July 2018, Clean Fuel Connection, Inc. (CFCI) installed 10 DC fast chargers at seven sites including the Hollywood & Highland red line metro stop, Little Tokyo gold line metro stop, Westwood LADOT parking garage, La Kretz Center for Innovation, Victoria Gardens shopping mall in Rancho Cucamonga, and Mel's Diner in Santa Monica. These chargers are part of the EVgo network and are provided needed public charging to fill gaps in corridor charging in Los Angeles and San Bernardino counties.

18072: Study Electrification Options of Energy Services for Environmental Justice Communities and Non-Attainment Areas

Contractor: Electric Power Research Institute	SCAQMD Cost-Share	\$ 150,000
	Cosponsors	
	California Energy Commission	799,444
	Electric Power Research Institute	609,213
Term: 06/08/18 – 06/07/19	Total Cost:	\$ 1,558,657

This study is to model the effects on air quality of a scenario that aggressively pursues GHG emissions reductions through electrification, including passenger vehicles, heavy-duty trucks, residential and commercial heat pumps, and industrial electrification. Air quality modeling has shown that electrification has significant potential to improve air quality, above emissions reductions expected from current regulations. Electrification of on-road and off-road vehicles leads to widespread reductions in smog in summer and winter throughout the South Coast Air Basin. The electrification study is in its final stages of completion, and a draft final report will be available early 2019. The current study results found some pollutants increased in coastal areas near the Los Angeles/Long Beach port complex, but this increase was offset by decreases in other pollutants. This is due to an effect similar to the ‘weekend effect,’ where a reduction in emissions can lead to an increase in some pollutants. The study results to date also found that residential space heating and water heating is a very significant opportunity for improvement in winter pollution. This is due to two factors: 1) emissions intensity for wood-fired sources is high and 2) current regulations do not address remaining sources for space and water heating. Overall, the study has indicated that electrification provides a cost-effective opportunity to simultaneously address GHG and air quality targets.

18129: Versatile Plug-In Auxiliary Power System Demonstration

Contractor: Electric Power Research Institute, Inc.	SCAQMD Cost-Share	\$ 125,000
	Cosponsors	
	Southern California Edison (in-kind)	128,000
	Invited Partners: Utility/Military/Police/Fire	20,000
Term: 06/28/18 – 06/27/20	Total Cost:	\$ 273,000

In December 2015, the Board awarded a contract to the Electric Power Research Institute, Inc., (EPRI) to cosponsor development and demonstration of a Versatile Plug-In Auxiliary (VAP) System. Based on the Phase I testing results, systems from alternative suppliers were evaluated and the scope of the project has expanded to include systems for portable power and portable DC fast charging. EPRI will use the previously approved cost-share for the second phase of the VAP System demonstration to evaluate the emissions and fuel usage benefits and impacts of electric auxiliary power in various on-board and stationary applications. Up to three units will undergo baseline tests at Southern California Edison’s EV Technical Center prior to field demonstration within SCAQMD.

18151: Develop and Demonstrate Battery Electric Switcher Locomotive

Contractor: Rail Propulsion System	SCAQMD Cost-Share (received as pass-through funds)	\$ 210,000
	Cosponsor	
	Rail Propulsion Systems (in-kind)	715,000
Term: 04/05/18 – 12/30/19	Total Cost:	\$ 925,000

This project is to develop and demonstrate a zero emission, battery electric switcher locomotive. Rail Propulsion Systems will perform the following: 1) design and fabricate a battery pack and rack system; 2) modify an existing switcher locomotive to integrate the battery pack and rack system as well as electronic control systems; 3) install charging infrastructure for the locomotive; and 4) perform substantial validation and durability testing to confirm the robustness of their design. Once the locomotive is developed, Rail Propulsion Systems will test and optimize the locomotive in preparation

for a field demonstration. The project will ultimately conclude after the locomotive has been placed in a typical switcher locomotive operation at the Coast Rail Services rail yard to fully validate its performance, durability and reliability. The technology transfer will be the valuable information gathered in order to develop pathways to the needs and type of charging structures which will be required in a rail yard. The project supports the implementation of advanced alternative fuel technology that could potentially be used to further reduce NOx emissions from locomotives. In addition, the development and successful deployment of these zero emission switcher locomotives will promote their acceptance by railroads and facilitate their deployment at rail yards in the South Coast Air Basin as well as assist the SCAQMD to attain its clean air goals. This contract is fully funded through a U.S. EPA CATI grant the SCAQMD is administering.

18232: Electric Top-Pick Development, Integration and Demonstration

Contractor: Hyster-Yale Group Inc.	SCAQMD Cost-Share <i>(partially received as pass-through funds)</i>	\$ 2,931,805
	Cosponsor	
	Hyster-Yale Group Inc.	746,203
Term: 09/14/18- 09/13/21	Total Cost:	\$ 3,678,008

Hyster-Yale in partner with WAVE and CALSTART will scale their already prototyped modular electrified power systems to validate and demonstrate a pre-pilot Hyster® 1150-CH electric container handler – known as a Top Handler - at POLA's APM Terminals (APM). The equipment will be driven via electric power and all lifting functions will be powered by electric motors engaging hydraulic pumps. The 384 kWh battery will use high-powered wireless opportunity charging to match terminal operations. While retrofits have been performed, fully electrified off-road heavy cargo handling equipment is not available today in this weight class from a major OEM. The introduction of such equipment represents a major step forward in emissions-free options for port operators. Top Handlers are one of the largest contributors of NOx and greenhouse gas (GHG) emissions from mobile source goods movement equipment used at the San Pedro Bay Ports. This contract includes \$2,564,004 in pass-through revenue from CEC.

18277: Southern California Advanced Sustainable Freight Demonstration

Contractor: Velocity Vehicle Group DBA Los Angeles Truck Centers LLC	SCAQMD Cost-Share <i>(partially received as pass-through funds)</i>	\$ 3,568,300
	Cosponsor	
	Velocity Vehicle Group DBA Los Angeles Truck Centers LLC	629,700
Term: 09/07/18 – 03/06/22	Total Cost:	\$ 4,198,000

Velocity Vehicle Group will partner with Freightliner Trucks, the leading truck OEM for Class 8 trucks, and Efficient Drivetrains, Inc. (EDI), a global leader and innovator of advanced, high-efficiency plug-in hybrid electric vehicle (PHEV) and full battery electric vehicle (EV) drivetrains, to develop and demonstrate three PHEV Class 8 drayage trucks and one EV Class 8 drayage truck. EDI's PowerDrive™ 8000 technology is based on an intelligent four-mode, series-parallel drivetrain and provides full performance in both EV and PHEV configurations and no range limitations in PHEV configuration. The EDI PowerDrive™ 8000 EV drivetrain can drive up to 100 miles in all-electric and zero-emission operation for short-haul vocations. The range extended plug-in hybrid version, the EDI

PowerDrive™ 8000 PHEV drivetrain, delivers up to 35 miles of all-electric driving, and a 300+ mile series-parallel hybrid driving range before refueling is required. This contract includes \$2,985,995 in pass-through revenue from CEC.

18280: Three-Year Lease of One Honda 2018 Clarity Plug-In Vehicle

Contractor: Honda of Pasadena	SCAQMD Cost-Share	\$ 18,359
Term: 02/07/18 – 02/06/21	Total Cost:	\$ 18,359

The SCAQMD operates a number of alternative fuel vehicles, including electric vehicles, fuel cell vehicles and plug-in hybrid-electric vehicles. The primary objective of having these vehicles as part of the SCAQMD demonstration fleet is to continue to support the use of zero emissions vehicles. The Honda Clarity Plug-In Hybrid provide up to 47 miles all electric range with about 340 miles total range including gasoline.

18287: Charging Station and Premises Agreement for Installation of One DC Fast Charger at SCAQMD Headquarters

Contractor: EVgo Services LLC	SCAQMD Cost-Share	\$ 0
Term: 06/08/18 – 06/07/19	Total Cost:	\$ 0

Through a CEC-funded project to install DC fast chargers throughout the South Coast Air Basin, EVgo and Clean Fuel Connection Inc. were tasked with installing a DC fast charger at SCAQMD's headquarters. This no-cost agreement provided access to the headquarters' premises for installation of the charger. The 50 kW fast charger has CHAdeMO and CCS connectors to charge the majority of American, European and Asian fast charging vehicles. The fast charger has been installed in the parking lot close to the front lobby entrance and adjacent to a cluster of Level 2 charging stations. These charging stations serve the needs of staff (78 registered EV drivers), visitors and the general public. EVgo will continue to operate and maintain the fast charger for a minimum of five years.

19190: Zero Emission Trucks and EV Infrastructure Project

Daimler Trucks North America	SCAQMD Cost-Share (transferred from Clean Fuels into Fund 61)	\$ 8,230,072
	Cosponsors	
	State Emissions Mitigation Fund (transferred to Advanced Technology Goods Movement Fund 61)	4,440,000
	Daimler Trucks North America	15,670,072
	San Pedro Bay Port (received into Fund 61)	2,000,000
	U.S. EPA (received into Fund 61)	500,000
Term: 12/18/18 – 6/19/22	Total Cost:	\$ 31,340,144

Daimler Trucks North America (DTNA) will develop battery-electric heavy-duty trucks and demonstrate them in real-world commercial fleet operations in and around environmental justice communities for a period of two years within SCAQMD's jurisdiction. DTNA will gather data and

information from the end-users including performance under specific duty-cycle applications during the demonstration. DTNA will utilize the data and information to move toward the commercial production and sales phase. DTNA will supply five Class 6 trucks with a gross vehicle weight rating (GVWR) up to 26,000 pounds and fifteen Class 8 trucks with a GVWR up to 80,000 pounds, including associated EV charging infrastructure. Fleet partners will be identified and the trucks integrated into a range of services and applications to gather operational data to improve each charging and utilization scheme, with seven of the Class 8 trucks to be used in port drayage operations, supporting the goods movement industry.

Purchase Order: Procure Greenlots SKY Enterprise Software License with Load Management for One Year

Contractor: Zeco Systems, Inc., dba Greenlots	SCAQMD Cost-Share	\$ 55,200
Term: 12/13/18 – 12/13/18	Total Cost:	\$ 55,200

The second phase of SCAQMD's EV charger project is to implement load management capabilities to manage demand from the EV chargers at SCAQMD headquarters in order to minimize facility demand charges from electricity bills for the building. The purchase order covers an annual subscription for the Greenlots load management and networking software. The networking software handles payment transactions for collection of EV charging revenue. The purchase order also covers the cost of meters and site controllers to meter the demand from the EV chargers, and enable the load management software to ramp down or turn off power to the EV chargers based on overall facility demand for peak demand shaving.

Direct Pay: Install DC Fast Charger at SCAQMD Headquarters

Contractor: Clean Fuel Connection Inc.	SCAQMD Cost-Share	\$ 59,134
Term: 05/29/18 – 05/29/18	Total Cost:	\$ 59,134

As part of a CEC funded project to install ten DC Fast Chargers in the South Coast Air Basin to further support a public fast charging network, these fast chargers were located in Los Angeles and San Bernardino counties. The CEC grant covered the cost of hardware and required cost-share covered the five year operation and maintenance costs, but did not cover installation costs. The direct pay covers the cost of installation for one fast charger at SCAQMD headquarters on the EVgo network, which serves staff, visitors and the general public.

Engine Systems/Technologies

17393: Development of an Ultra-Low Emissions Diesel Engine for On-Road Heavy-Duty Vehicles

Contractor: Southwest Research Institute	SCAQMD Cost-Share (partially received as pass-through funds)	\$ 575,000
	Cosponsor	
	California Air Resources Board	750,000
Term: 05/30/18 – 07/31/19	Total Cost:	\$ 1,325,000

This is Stage 3 of a comprehensive project to develop the low load cycles and application of aftertreatment and engine controls to mitigate emissions in the most critical areas of a heavy-duty engine cycle typical in the Los Angeles basin. Cylinder deactivation (CDA) hardware, in combination with a modified aftertreatment system, have shown potential in modeling to reach 0.02 NO_x per bhp-hr. A heavy-duty 15-liter engine will be modified and tested with the CDA and extensive engine control algorithms will be investigated. The aftertreatment will include components, such as a mini burner and a passive-NO_x adsorber, as well as a possible close coupled catalyst to reach the desired near-zero NO_x. This contract includes \$287,500 in pass-through revenue from the Port of Los Angeles.

18194: Develop and Demonstrate Near-Zero Emissions Opposed Piston Engine

Contractor: CALSTART Inc.	SCAQMD Cost-Share	\$ 1,000,000
	Cosponsors	
	California Air Resources Board	7,000,000
	Achates Power, Inc.	6,550,000
	San Joaquin Air Pollution Control District	1,000,000
Term: 05/30/18 – 07/31/120	Total Cost:	\$ 15,550,000

This project takes an old concept to launch a new beginning. The opposed piston engine in combination with modern computer modeling and aftertreatment systems shows potential to be an entirely new option in internal combustion engines. Lower emissions and higher efficiency is expected. This project is for the complete development of a heavy-duty diesel engine and demonstration in class 8 trucks. The engine will have the same power rating requirements as the conventional engine of similar displacement. This project offers another pathway to providing a near-zero NO_x engine for use in class 8 trucks.

18211: Develop Thermal Management Strategy using Cylinder Deactivation for Heavy-Duty Diesel Engines

Contractor: West Virginia University Innovation Corporation	SCAQMD Cost-Share	\$ 250,000
	Cosponsors	
	Environment Canada	100,000
	U.S. Environmental Protection Agency	250,000
	Jacobs Vehicle Systems, Inc. (in-kind)	50,000
	Cummins Inc. (in-kind)	50,000
Term: 06/08/18 – 06/07/20	Total Cost:	\$ 700,000

This project is to study the potential benefits of cylinder deactivation on a heavy-duty diesel engine. The benefits of NO_x s and possible GHG reductions make this an important study in the pathway to near-zero emissions for heavy-duty diesel engines. The hardware will be installed and tested for noise, vibration, harshness and reliability as well as emissions on the dynamometer in a lab setting.

18122: Southern California Trucking Demonstration of Near-Zero ISX12N Beta Engines

Contractor: Clean Energy	SCAQMD Cost-Share (partially received as pass-through funds)	\$ 3,495,000
	Cosponsor	
	Clean Energy (in-kind)	2,500,000
Term: 01/05/18 – 01/04/20	Total Cost:	\$ 5,995,000

The SCAQMD and Clean Energy partnered to develop a project that was awarded CEC funds under the 2016 Sustainable Freight Transportation Grant Funding Opportunity. The project scope includes repowering 20 existing 12-liter heavy-duty (HD) natural gas-powered vehicles with the new Beta version of Cummins-Westport's ISX12N engine and demonstrating this technology with seven local freight movement fleets. Each fleet operator is deploying their demonstration vehicle into routine service, thereby allowing operators and fleet managers the opportunity to get "first-hand" experience with the new HD natural gas engines. The expected outcome is to alter the negative perception of prior HD natural gas engines. Upon completion of the one year demonstration each vehicle's engine and exhaust treatment systems will undergo minimal changes from the Beta version to the fully commercialized version and will be certified to CARB's optional low NOx standard of 0.02g NOx/bhp-hr. Demonstrations are expected to conclude in Q3 2019. Fleet operator are expected to continue operating each vehicle in the South Coast Air Basin for their normal useful life. This contract includes \$2,845,000 in pass-through revenue from CEC and \$650,000 in cost-share funds from SCAQMD.

Fueling Infrastructure and Deployment (NG/Renewable Fuels)**Transfer: Participation in the California Natural Gas Vehicle Partnership for Fiscal Year 2018-19 and 2019-20**

Contractor: California Natural Gas Vehicle Partnership	SCAQMD Cost-Share	\$ 25,000
	Cosponsor	
	CNGVP Participating Members	145,000
Term: 07/06/18 – 07/05/20	Total Cost:	\$ 170,000

The California Natural Gas Vehicle Partnership (CNGVP) was formed to accelerate the development of advanced natural gas vehicle technologies to provide a benchmark for lowering emissions from petroleum-based engines and to provide a pathway to hydrogen fuel cell use in the next two decades. The SCAQMD spearheaded the formation of this strategic alliance, which comprises state and federal air quality, transportation and energy agencies, vehicle and engine manufacturers, fuel providers, and transit and refuse hauler organizations. Partnership Steering Committee members contribute monies to fund specific projects intended to achieve the goal of the Partnership. In July 2018 the SCAQMD approved \$25,000 for the SCAQMD's participation in the Steering Committee for the next two years. Projects or efforts funded by the Partnership include event sponsorships such as the ACT Expo and the ReThink

Methane Symposia; enhancing and maintaining the Partnership's website; and, co-funding a white paper study to assess the business case of renewable natural gas with new near zero emission natural gas powered heavy-duty vehicles.

Various: Replace Diesel School Buses with Near-Zero Emissions CNG Buses

Contractor: 18 School Districts	SCAQMD Cost-Share (received as pass-through funds)	\$ 3,104,700
	Cosponsor	
	School Districts (match)	1,185,000
Term: Varies (all executed in CY 2018)	Total Cost:	\$ 4,289,700

In 2018, SCAQMD executed grants with 18 school districts to replace a total of 79 old pre-1994 diesel school buses with Type D CNG school buses certified to meet the optional low NOx, near-zero standard of 0.02 g/bhp-hr. The awards will provide up to \$192,000 for each Type D CNG school bus including sales tax. These school buses are partially funded by a U.S. EPA Airshed grant, the funds from which were recognized into the Clean Fuels Fund. Out of the \$192,000 per bus provided under the grant, \$39,300 is provided by the U.S. EPA Airshed grant. The remaining funds were provided by SCAQMD's AB 923 funds totaling \$13,286,800 (not listed in the table above). School districts are also required to provide a match of \$15,000 per CNG bus.

Fuel/Emissions Studies

18206: Assess Air Quality and Greenhouse Gas Impacts of a Microgrid-Based Electricity System

Contractor: University of California Irvine	SCAQMD Cost-Share	\$ 660,000
	Cosponsors	
	University of California Irvine, in partnership with U.S. Department of Energy, Southern California Gas Company and National Science Foundation (in-kind)	640,000
Term: 04/06/18 – 04/05/20	Total Cost:	\$ 1,300,000

The University of California Irvine (UCI) through its Advanced Power and Energy Program proposes to perform three projects to evaluate air quality and greenhouse gas impacts. These projects will focus on potential fuel cell technology applications for industrial operations and petroleum refineries, assess impacts of renewable hydrogen blending in existing natural gas infrastructure and equipment, and compare economic performance of a fuel cell and battery-electric bus operating in a microgrid.

Emissions Control Technologies

17367: Develop and Evaluate Aftertreatment Systems for Large Displacement Diesel Engines

Contractor: Southwest Research Institute	SCAQMD Cost-Share (partially received as pass-through funds)	\$ 400,000
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	Cosponsor	
	Manufacturers of Emission Controls Association	80,000
Term: 02/28/18 – 06/30/19	Total Cost:	\$ 480,000

This project is in response to a request to continue a CARB-funded project developing new test cycles for emissions certification. Complications were discovered in the original project aftertreatment and the data was found inconclusive. Therefore, project partners agreed to run the test again to get definitive results from the aged aftertreatment system. The aftertreatment was aged for 1,000 hours and data collected and analyzed at different load cycles similar to that which would be found in the Los Angeles air basin. This contract includes \$290,000 in pass-through revenue from the U.S. EPA.

Technology Assessment and Transfer/Outreach

16262: Support Sustainable Transportation Energy Pathways (STEPS)

Contractor: University of California Davis-Institute of Transportation Studies	SCAQMD Cost-Share	\$ 240,000
	Cosponsors	
	7 Energy Companies	1,680,000
	10 Automotive Companies	2,400,000
	5 Government Agencies	1,200,000
Term: 01/05/18 – 01/04/22	Total Cost:	\$ 5,520,000

The Sustainable Transportation Energy Pathways (STEPS) Program at the U.C. Davis-Institute of Transportation Studies is continuing their multidisciplinary research consortium that brings together the world's leading automotive manufacturers, energy companies and government agencies to understand sustainable vehicle and energy solutions. The four explicit program goals of the STEPS 2015-2018 Program are to: 1) optimize scenarios for mass transition to alternative fuels and vehicles in California, 2) model evolving relationships between future sources of mobile energy and the existing oil and gas industry, 3) describe current trends and inform policymakers of strategies for Global Urban Sustainable Transport, and 4) continue development of a wide range of models in order to progress research and improve trend recognition.

18253: Identify and Secure a “Futurist” Clean Transportation or Goods Movement Technologies Expert

Contractor: Three Squares Inc.	SCAQMD Cost-Share	\$ 11,845
Term: 04/05/18 – 05/31/18	Total Cost:	\$ 11,845

Three Squares Inc. (TSI), one of the nation's leading green event production and marketing firms specializing in producing environmentally sustainable high profile events, assisted SCAQMD in identifying and securing a recognized leading expert in clean transportation and technologies. TSI has experience leading large-scale event production efforts across the globe and has demonstrated the capacity to secure event speakers to attract international audiences of environmental leaders, corporate executives, academic researchers, technology developers and clean tech financiers. Through these events, TSI has established a wide network of contacts and prestigious speakers. This expert identified as a ‘futurist’ presented at the SCAQMD Board Retreat on May 10, 2018.

19078: Technical Assistance with Alternative Fuels, EVs, Charging and Infrastructure, and Renewable Energy

Contractor: Clean Fuel Connection, Inc.	SCAQMD Cost-Share	\$ 100,000
Term: 09/07/08 – 09/06/20	Total Cost:	\$ 100,000

SCAQMD relies on expert input, consultation and support to manage a number of programs conducted under the Clean Fuels Program and incentive programs. Clean Fuel Connection, Inc., is providing technical assistance with alternative fuels, renewable energy and electric vehicles as well as outreach activities to promote, assess, expedite and deploy the development and demonstration of advanced, low and zero emissions mobile and stationary technologies. This contract is for technical and administrative support to enable the range of activities involved in implementing the Clean Fuels Program and associated complimentary programs as needed.

Direct Pay: Cosponsor 26 Conferences, Workshops & Events plus 5 Memberships

Contractor: Various	SCAQMD Cost-Share	\$ 470,118
	Cosponsors	
	Various	3,722,352
Term: 01/01/18 – 12/31/18	Total Cost:	\$ 4,192,470

The SCAQMD regularly participates in and hosts or cosponsors conferences, workshops and miscellaneous events. In CY 2018, SCAQMD provided funding for 26 conferences, workshops and events and 5 memberships in key stakeholder organizations, as follows: Hydrogen and Fuel Cells Ports Briefing in December 2017 (executed in 2018); Clean Fuels Advisory Group Retreats in September 2017 and January 2018; Rethink Methane in February 2018; NREL’s Natural Gas Vehicle Technology Forum in February 2018; ICEPAG in March 2018; CALSTART Clean Transportation Summit “California:2030” in March 2018; 28th Real-World Emissions Workshop in March 2018; Portable Emissions Measurement Systems Conference & Workshop in March 2018; ACT Expo in April 2018; Hydrogen and Fuel Cell On-Road Freight Workshop in April 2018; California Passenger Rail Summit in April 2018; Special Awards at the California State Science Fair in April 2018; CARB’s 50th Anniversary Technology Symposium and Showcase in May 2018; Advanced Transportation Symposium & Expo in June 2018; Women in Green Forum in August 2018; Electrification 2018 International Conference & Expo in August 2018; 2018 Air Sensors International Conference in September 2018; Los Angeles National Drive Electric Week “ChargeUp LA” in September 2018; Santa Monica AltCar Expo & Conference in October 2018; CALSTART’s 26th Annual Symposium in November 2018; CalETC 2018 Los Angeles Auto Show events in November 2018; West Coast Collaborative Partners Meeting in October 2018; Power of Waste: Renewable Natural Gas (RNG) for California Workshop in October 2018; Annual Women in Trade Event in November 2018; and Mobile Source Air Toxics Workshop in February 2019. Additionally, for 2018, four memberships were renewed for participation in the California Hydrogen Business Council, California Stationary Fuel Cell Collaborative; CALSTART Board; and Veloz (subsumed California PEV Collaborative). SCAQMD also joined a new organization, the Los Angeles Cleantech Incubator’s Transportation Electrification Partnership, which issued the ZE 2028 Roadmap in fall 2018.

CLEAN FUELS PROGRAM

Progress and Results in 2018

Key Projects Completed

A large number of emission sources contribute to the air quality problems in the South Coast Air Basin. Given the diversity of these sources, there is no single technology or “silver bullet” that can solve all of the region’s problems. Accordingly, the SCAQMD continues to support a wide range of advanced technologies, addressing not only the diversity of emissions sources, but also the time frame to commercialization of these technologies. Projects cofunded by the SCAQMD’s Clean Fuels Program include emission reduction demonstrations for both mobile and stationary sources, although legislative requirements limit the use of available funds primarily to on-road mobile sources.

Historically, mobile source projects have targeted low emissions technology developments in automobiles, transit buses, medium- and heavy-duty trucks and off-road applications. The last few years the focus has shifted to near-zero and zero emissions technologies for medium- and heavy-duty trucks, especially those in the goods movement industry.

Table 5 (page 54) provides a list of 45 projects and contracts completed in 2018. Summaries of the completed technical projects are included in Appendix C. Selected projects completed in 2018 which represent a range of key technologies from near-term to long-term are highlighted below: (a) Develop, Integrate and Demonstrate Ultra-Low Emissions 12-Liter Natural Gas Engine for On-Road Heavy-Duty Vehicles; (b) Demonstrate Catenary Zero Emissions Goods Movement System; and (c) Secondary Organic Aerosol Forming Potential from Light-Duty Gasoline Direct Injection Vehicles.

Develop, Integrate and Demonstrate Ultra-Low Emissions 12-Liter Natural Gas Engine for On-Road Heavy-Duty Vehicles

The 12-liter (12L) natural gas engine project was a follow-on to the 8.9L natural gas engine development and certification project to address needs of larger displacement engines. The 12L natural gas engine was certified at near-zero NO_x achieving a 0.02 gram bhp-hr rating and went into full production in February 2018. The Cummins Westport ISX12N (the “N” designation is for near-zero emissions) is a larger-displacement natural gas engine suitable for a variety of heavy-duty vehicles, including regional-haul truck/tractor, vocational and refuse applications. With a displacement of 11.9 liters and up to 400 horsepower and 1,450 lbs. per foot of torque, the ISX12N operates on 100 percent natural gas, which can be carried on the vehicle in either compressed (CNG) or liquefied (LNG) form. The ISX12N can also run on renewable natural gas (RNG). Sales have been increasing nationally with over 2 million miles tested on the road.

An extensive process was undertaken to design and develop the 12L natural gas engine and aftertreatment to meet the 0.02 gram NO_x level. Utilizing learnings from previous technology development, the existing stoichiometric-cooled EGR spark-ignited combustion was selected as the platform to complement with the following additions/changes:

- Implementation of a closed crankcase ventilation (CCV) system with additional pressure sensor;
- Aftertreatment size increased, improved formulation and O₂ sensor location changed;
- Redesigned fuel system for improved fuel delivery accuracy and responsiveness; and
- Improved software with various emissions optimizing control strategies and addition of heavy-duty on-board diagnostics (OBD).

The combination of increased aftertreatment size and improved formulation increases the overall conversion efficiency of the catalyst and thereby reduces emissions.

The recommended maximum gross container vehicle weight (GCVW) for line-haul applications is 80,000 lbs. (36,287 kg). The recommended gearing to optimize fuel economy is 1,400-1,475 rpms at cruise speed for line-haul applications and 1,450-1,600 rpms for vocational applications.

The ISX12 N engine has been certified at 0.02 g/bhp-hr current 2010 CARB optional low NOx standards and the U.S. EPA GHG and U.S. Department of Transportation fuel consumption regulations. The figure below shows the first Class 8 truck with a ISX12 engine delivered to a customer.



Figure 16: Class 8 Tractor with 12-Liter NG Engine

Demonstrate Catenary Zero Emissions Goods Movement System

Siemens Industry Inc. has designed and demonstrated a catenary truck technology, eHighway, in Germany on a European truck chassis. For this project with SCAQMD, Siemens proposed to bring the eHighway technology to Southern California with their partner Volvo and develop and demonstrate a catenary plug-in hybrid electric truck technology. The hybrid drive system will extend the operating range of the truck beyond the all-electric range of the catenary system, enabling the truck to perform regional drayage operations and bridge gaps in catenary infrastructure as it is deployed on a regional level.

For SCAQMD, the infrastructure portion of the project was built along Alameda Street in the City of Carson. The approximate one mile segment extends north to south from East Lomita Blvd to the Dominguez Channel. Corresponding with the operational range of the pantographs, two parallel catenary wires were installed above the roadway one mile in each direction. The height of the system was designed to be above standard vehicle dimensions and clearances. The horizontal position of the overhead contact line along the roadway is supported by tensioning devices installed inside the poles supporting the overhead catenary system. The connection to the grid occurred at the middle of the system where a power supply was placed.

The Alameda Corridor where the eHighway system was demonstrated is a highly congested urban industrial area with several refineries, railyards and facilities associated with petroleum refining. Nearly two years of delays were encountered for the construction portion of the project. Because of the many underground utilities, some known on city maps and others not identified in any city or county records, placement of the planned pole foundations was affected. The obstructions prevented Siemens from

going forward with their original design and they had to redesign the foundations to above ground. The design change caused further delays due to requirements by the City of Carson to install safety barriers and the encroachment onto the roadway of the foundations (Figure 17). Additional delays prior to the start of demonstration were encountered because the system power supply was placed over a high pressure gas line.

The demonstration period had to be reduced from one year to six months because of the issues outlined above. The demonstration was successful in proving out the operation of the vehicles and infrastructure. At the end of the six-month demonstration, Siemens decommissioned the system and returned the area to its original condition.

The SCAQMD conducted several independent studies that included: Determining Owner Operator for Catenary System; Total Cost of Ownership: Catenary Trucks vs Battery Electric Trucks; and Grid Impact Study and Business Case for eHighway. The studies were presented to the funding partners in the project and discussions of the technology and the project were conducted. The recommendations of the viability of the technology are as follows:

- Catenary systems may work in specific duty cycles with high concentrations of traffic on specific routes;
- Vehicles are tied to catenary technology and route;
- Having dual propulsion technologies on a vehicle is complex and expensive for limited utilization;
- Technologies not tied to wayside power are more versatile and flexible in their application for multiple duty cycles;
- Further R&D work and steps towards higher technology readiness level (TRL) must be taken;
- Commercialization and robustness of the pantographs is needed and optimized electric hybrid drivetrains; and
- Technology improvements and lower costs are needed for vehicles and infrastructure to impact economic feasibility.

In addition to the findings of the results of the catenary demonstration, other zero emissions technologies, such as battery and fuel cells, have improved dramatically in durability, reliability, energy density and lower costs.



Figure 17: eHighway Infrastructure on Alameda Street



Figure 18: Volvo Truck Operating on eHighway

Lesson learned and benefits of this project:

- Wayside power for zero emissions cargo transportation was difficult to implement in an urban industrial environment where it is needed most for reducing criteria pollutants. Sweden did a similar project but the system was constructed in a “green field” without utilities or obstructions to interfere with the construction; the Swedish objective was GHG reductions. The catenary technology may be viable in environments where it is being implemented in Sweden and Germany.
- Siemens was able to design and develop other alternatives for constructing their system infrastructure.
- Constructing infrastructure in the public right of way has many challenges and obstacles to overcome. Implementing such infrastructure, whether it is EV, hydrogen or wayside power, requires a more intensive site survey and risk analyses and risk mitigation plans need to be conducted before putting a shovel to the ground.
- Truck technologies, such as Volvo’s hybrid electric platform, continue development of what was used in the Siemens project in two other major projects SCAQMD is administering: 1) the GGRF drayage truck project, and most recently: 2) the Volvo LIGHTS project. In these projects, we are seeing Volvo transition from diesel hybrid to battery electric trucks. SCAQMD’s work with Volvo on these projects contributed to the realization of the benefits and viability of zero emissions transportation.

Secondary Organic Aerosol Forming Potential from Light-Duty Gasoline Direct Injection Vehicles

Gasoline direct injection (GDI) vehicles are known for higher fuel efficiency and power output but the PM emissions profile is not well understood, especially on secondary organic aerosol (SOA) formation potential. As manufacturers introduce more GDI models in the market to meet new fuel economy standards, it is important to understand the SOA forming potential from these vehicles as it could lead to further impact on the ambient PM concentration in the South Coast Air Basin (Basin).

The University of California Riverside (UCR)/CE-CERT evaluated the primary emissions and SOA production from eight current technology GDI vehicles over the LA92 test cycle. This program had three distinct goals (or separate exercises): 1) evaluate primary emissions and SOA formation from conventional GDI vehicles; 2) evaluate particulate emissions, toxic pollutants and SOA formation from GDI vehicles with and without gasoline particle filters (GPFs); and 3) examine the impact of fuel composition on the tailpipe emissions and SOA formation from GDI flexible fuel vehicles (FFVs). For the first exercise, four 2015 to 2016 model year GDI vehicles were tested. Results showed that PM, black carbon (BC) and particle number (PN) emissions increased markedly during accelerations and the cold-start phase. PN and BC emissions showed large reductions during the urban and hot-start phases. Aged exhaust emissions resulted in distinct secondary aerosol emissions that varied significantly in physical and chemical structure. Two of the four vehicles produced considerable

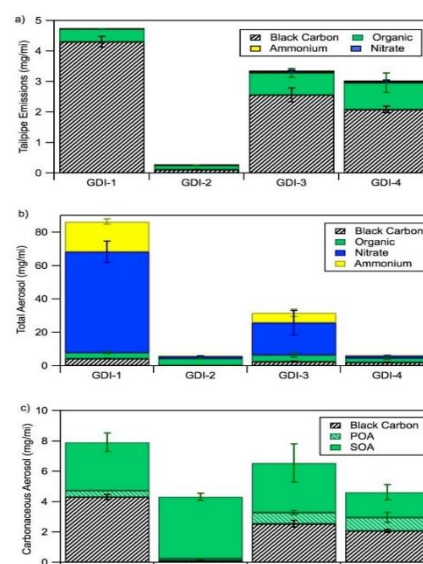


Figure 19: Chemical composition of primary organic aerosol (a-top panel), secondary organic aerosol after irradiation (b-middle panel), and primary and secondary carbonaceous aerosol (c-bottom panel).

amounts of inorganic aerosol, thereby modifying secondary aerosol volatility and hygroscopicity (Figure 19b). Primary PM emissions from all vehicles in this study met their certification requirements for their respective model years (Figure 19a); however, all vehicles exhibited potential to form a considerable amount of secondary aerosol with different composition (Figure 19c).

For the second exercise, two 2016 model year GDI vehicles were evaluated for the effects of catalyzed GPF addition to GDI vehicles. The use of catalyzed GPFs greatly reduced the toxic polycyclic aromatic hydrocarbons and their nitrated derivatives (nitro-PAHs), as well as dramatically reduced PM, PN and BC emissions. Gaseous emissions of NO_x, total hydrocarbons (THC) and non-methane hydrocarbons (NMHC), and production of SOA was reduced with GPF addition.

For the third exercise, two GDI FFVs were tested with four fuels of different ethanol blend levels: E10 with high aromatics, E10 with low aromatics, intermediate E30 and high E78 blend. Vehicles fueled with E30 and E78 exhibited reductions in THC, NMHC, CO and NO_x emissions compared to the high aromatics E10. As the ethanol content increased, the secondary aerosol formation potential decreased in both FFVs, due to reduction in SOA precursors (i.e., NMHC). In general, this study found that high ethanol content is not only effective in the reduction of tailpipe PM, but also has the potential to greatly decrease SOA formation potential of the emitted exhaust.

As shown in Figure 20, results from this study were compared to earlier peer-reviewed studies exploring SOA formation from gasoline vehicles. The comparison showed that SOA formation dropped as the emissions certification standards became more stringent.

In summary, this study showed that higher aromatics will increase SOA, while higher ethanol blends will reduce SOA formation. The results also showed that SOA formation increased with increasing NMHC emissions, suggesting that further reductions in NMHC emissions are necessary from current technology GDI vehicles. Catalyzed GPFs may help to reduce SOA productions from GDI vehicles.

This study will enhance our ability to model the formation of SOA from GDI vehicles, helping to close the gap between atmospheric measurements and model predictions of PM concentrations. Models equipped with these SOA formation processes could then be used to help formulate science-based policy for the reduction of ambient PM concentrations.

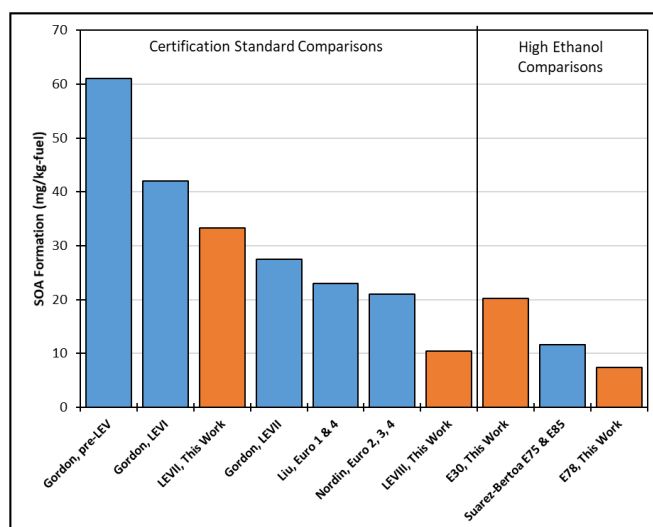


Figure 20: Comparison of SOA formation from GDI vehicles in this study and from gasoline vehicles in earlier peer-reviewed studies

Table 5: Projects Completed between January 1 & December 31, 2018

Contract	Contractor	Project Title	Date
Hydrogen/Mobile Fuel Cell Technologies and Infrastructure			
12057	Linde, LLC	Expand Hydrogen Fueling Infrastructure	Oct-2018
14684	California Department of Food and Agriculture, Division of Measurement Standards	Conduct Hydrogen Station Site Evaluations for Site Certifications for Commercial Sale of Hydrogen	Feb-2018
15641†	Hardin Hyundai	Three-Year Lease of 2015 Tucson Fuel Cell Vehicle	Jun-2018
16171†	Longo Toyota	Three-Year Lease of 2015 Toyota Mirai Fuel Cell Vehicle	Dec-2018
17394	Energy Independence Now	Provide Analysis of Renewable Hydrogen Pathways, Economics and Incentives	Mar-2018
Electric/Hybrid Technologies and Infrastructure			
13426	Transportation Power, Inc.	Develop and Demonstrate Catenary Class 8 Trucks (1 Electric & 1 CNG Platform)	Jul-2018
13439†	City of Carson	MOU for Catenary Zero Emissions Goods Movement Project	Jul-2018
14062	Siemens Industry Inc.	Develop and Demonstrate Catenary Zero Emissions Goods Movement System and Develop and Demonstrate Diesel Catenary Hybrid Electric Trucks	Dec-2018
15382	ChargePoint, Inc.	Install Electric Charging Infrastructure	Jan-2018
15650	University of California San Diego	Develop and Demonstrate Warehouse Rooftop Solar System with Storage and EV Charging	Jan-2018
16047	US Hybrid Corporation	ZECT I: Develop and Demonstrate Three Class 8 LNG Plug-In Hybrid Electric Drayage Trucks	Sep-2018
Engine Systems/Technologies			
15632	Gas Technology Institute	Develop Ultra-Low Emission Natural Gas Engine for On-Road Medium-Duty Vehicles	Jun-2018
16205	Cummins Westport, Inc.	Develop, Integrate and Demonstrate Ultra-Low Emission 12-Liter Natural Gas Engines for On-Road Heavy-Duty Vehicles	Jun-2018
Fueling Infrastructure and Deployment (NG/Renewable Fuels)			
09364†	Rim of the World Unified School District	Construct and Install a CNG Fueling Station and Perform Garage Upgrades	Oct-2018
12851	Clean Energy	Install, Operate and Maintain Three Natural Gas Fueling Stations	Dec-2018

Table 5: Projects Completed between January 1 & December 31, 2018 (cont'd)

Contract	Contractor	Project Title	Date
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Fueling Infrastructure and Deployment (NG/Renewable Fuels) (cont'd)

12852	City of Corona	Upgrade Existing CNG Fueling Station at City Corporate Yard	Jan-2018
12853	Rainbow Disposal Co., Inc.	Upgrade CNG Fueling Station	Dec-2018
12854	Waste Management, Inc.	Upgrade LNG Fueling Station at Baldwin Park Facility	Dec-2018
15438	United Parcel Service (UPS)	Refurbish Ontario LCNG Fueling Facility	Jun-2018

Fuel/Emissions Studies

15625	University of California Riverside/CE-CERT	Evaluate SOA Formation Potential from Light-Duty GDI Vehicles	Jun-2018
17060†	University of California Riverside	Bailment Agreement – Equipment Use for In-Use Emissions Testing of Heavy-Duty Inspection and Maintenance Program	Oct-2018

Technology Assessment and Transfer/Outreach

12381†	Integra Environmental Consulting Inc.	Technical Assistance Related to Emissions Inventories, Goods Movement and Off-Road Sources	Apr-2018
14185	Three Squares Inc.	Conduct Education Outreach for the Basin DC Fast Charging Network Project	Jun-2018
15516†	Cordoba Corporation	Technical Assistance with Construction of Zero Emissions Goods Movement Demonstration Project	Mar-2018
17037†	Clean Fuel Connection, Inc.	Technical Assistance with Alternative Fuels, Electric Vehicles, Charging and Fueling Infrastructure and Renewable Energy	Nov-2018
17282†	CALSTART, Inc.	Cosponsor CALSTART's 25 th Anniversary Symposium	Jan-2018
17336	Three Squares Inc.	Conduct Education Outreach for the Basin DC Fast Charging Network Project	Jun-2018
18120†	Burke Rix Communications	Cosponsor the Southern California Energy Water + Green Living Summit 2018	Feb-2018
18145†	Gladstein, Neandross & Associates LLC	Cosponsor Rethink Methane 2018	Feb-2018
18155†	University of California Davis-Institute of Transportation Studies	Cosponsor 2018 Air Sensors International Conference	Oct-201
18163†	CALSTART, Inc.	Cosponsor the CALSTART 2018 Clean Transportation Summit <i>California: 2030</i>	Apr-2018
18199†	National Renewable Energy Lab	Cosponsor NREL's Natural Gas Vehicle Technology Forum	Apr-2018

Table 5: Projects Completed between January 1 & December 31, 2018 (cont'd)

Contract	Contractor	Project Title	Date
Technology Assessment and Transfer/Outreach (cont'd)			
18219†	Coordinating Research Council, Inc.	Cosponsor the 28th Real World Emissions Workshop	Apr-2018
18235†	Southwest Rail Passenger Association	Cosponsor 2018 California Passenger Rail Summit	Apr-2018
18245†	University of California Riverside	Cosponsor the 2018 Portable Emissions Measurement Systems Conference & Workshop	Apr-2018
18249†	University of California Riverside	Cosponsor CARB's 50 th Anniversary Technology Symposium and Showcase	May-2018
18253†	Three Squares Inc.	Identify and Secure a 'Futurist' Clean Transportation or Goods Movement Technologies Expert	May-2018
18282†	California Hydrogen Business Council	Cosponsor the Hydrogen and Fuel Cell On-Road Freight Workshop	May-2018
18290†	Sustain OC	Cosponsor the 2018 Advanced Transportation Symposium & Expo	Jul-2018
18382†	Three Squares Inc.	Cosponsor the 2018 Women in Green Forum	Nov-2018
19040†	Plug In America	Cosponsor the Los Angeles National Drive Electric Week 2018	Sep-2018
19041†	Green Technology (Foundation for Advancements in Science and Education)	Cosponsor Green California Schools and Community Colleges Summit and Exhibition	Dec-2018
19090†	Electric Power Research Institute	Exhibit at Electrification 2018 International Conference & Exposition	Aug-2018
19112†	Platia Productions	Cosponsor the 2018 Santa Monica AltCar Expo & Conference	Nov-2018
19154†	California Electric Transportation Coalition	Cosponsor the CalETC 2018 Los Angeles Auto Show Events	Dec-2018

†Two-page summary reports (as provided in Appendix C) are not required for level-of-effort technical assistance contracts, leases or cosponsorships; or it was unavailable at time of printing this report.

CLEAN FUELS PROGRAM 2019 Plan Update

As noted earlier, 2018 marked the 30th year of the SCAQMD's Clean Fuels Program. The funding source for the Clean Fuels Program is a \$1 motor vehicle registration surcharge that, like the Program, was originally approved for a limited five-year period, but legislation eventually extended both the Program and surcharge indefinitely. The Clean Fuels Program has evolved over the years, but has continued to fund a broad array of technology applications spanning near- and long-term implementation. More recently, the focus has been and will continue to be to support the development and deployment of zero and near-zero emissions technologies. Similarly, planning has been and will remain an ongoing activity for the Program, which must remain flexible to address evolving technologies as well as the latest progress in the state-of-technologies, new research areas and data.

Every year the SCAQMD re-evaluates the Clean Fuels Program to develop a Plan Update based on a reassessment of the technology progress and direction of the SCAQMD's Board. This Plan Update for CY 2019 targets several projects to help achieve near-term emissions reductions needed for the South Coast to meet health-based air quality standards.

Overall Strategy

The overall strategy of the TAO's Clean Fuels Program is based, in large part, on emissions reduction technology needs identified through the AQMP process and the SCAQMD Board's directives to protect the health of the approximately 17 million residents (nearly half the population of California) in the South Coast Basin. The AQMP, which is updated approximately every four years, is the long-term regional "blueprint" that relies on fair-share emission reductions from all jurisdictional levels (e.g., federal, state and local). The 2016 AQMP is composed of stationary and mobile source emissions reductions from traditional regulatory control measures, incentive-based programs, projected co-benefits from climate change programs, mobile source strategies and reductions from federally regulated sources (e.g., aircraft, locomotives and ocean-going vessels).

The emissions reductions and control measures in the 2016 AQMP rely on commercial adoption of a mix of currently available technologies as well as the expedited development and commercialization of lower-emitting mobile and stationary advanced technologies in the Basin to achieve air quality standards. The 2016 AQMP projects that an approximate 45 percent reduction in oxides of nitrogen (NO_x) is required by 2023 and an additional 55 percent reduction by 2031. The majority of these NO_x reductions must come from mobile sources, both on- and off-road. Notably, the SCAQMD is currently only one of two regions in the nation designated as an extreme ozone nonattainment area (the other is San Joaquin Valley). Ground level ozone (a key component of smog) is created by a chemical reaction between NO_x and volatile organic compound (VOC) emissions in the presence of sunlight. This is especially noteworthy because in the South Coast Air Basin the primary driver for ozone formation is NO_x emissions, and mobile sources contribute approximately 88 percent of the NO_x emissions in this region. Furthermore, NO_x emissions, along with VOC emissions, also lead to the formation of PM_{2.5} [particulate matter measuring 2.5 microns or less in size, expressed as micrograms per cubic meter (µg/m³)].

In June 2016, SCAQMD and 10 co-petitioners requested the U.S. EPA Administrator to undertake rulemaking to revise the national on-road heavy-duty engine exhaust NO_x emission standard from 0.2 g/bhp-hr to 0.02 g/bhp-hr. It was recommended that the regulation be implemented by January 2022 or if not feasible, by January 2024, with a phase-in starting in January 1, 2022. A national standard (as opposed to only a California standard) is estimated to result in NO_x emission reductions from this

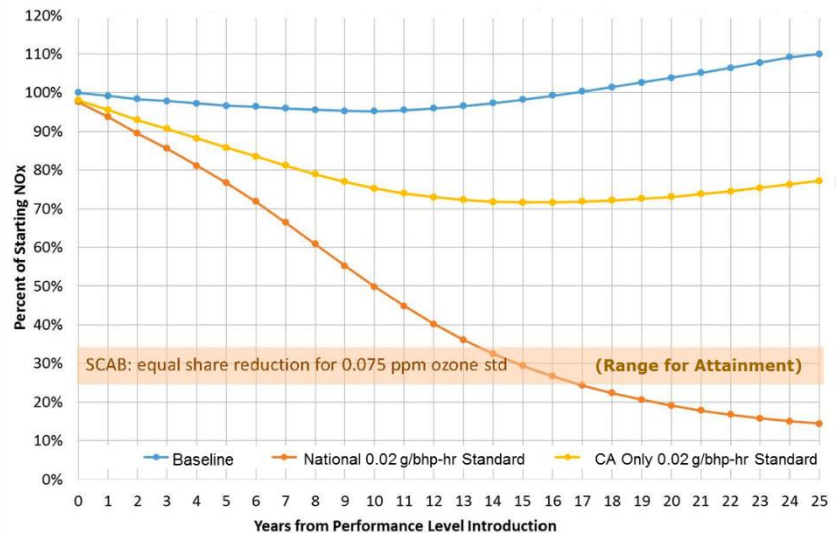
source category from 70 to 90 percent in 14 to 25 years, respectively. Given that the Basin must attain the 75 ppb ozone NAAQS by 2031 (within the next 13 years), a new on-road heavy-duty engine exhaust emissions standard for NO_x is critical given the time needed for such standards to be adopted, for manufacturers to develop and produce compliant vehicles, and for national fleet turnover to occur. In November 2018, U.S. EPA initiated the process to update the existing heavy-duty engine standards to lower NO_x emissions.

Figure 21 shows the difference in NO_x reductions from heavy-duty trucks between baseline emissions (no new regulations) in blue, a low NO_x standard adopted only in California in yellow, and lastly, the orange line shows reductions if the same low NO_x standard is implemented nationally.

The findings from the MATES IV⁵ (released May 2015), which included local scale studies near large sources such as ports and freeways, reinforce the importance of the need for transformative transportation technologies, especially near the goods movement corridor to reduce NO_x emissions. In recognition of these impacts, the SCAQMD added as a key element to its strategy a concerted effort to develop and demonstrate zero and near-zero emissions' goods

movement technologies, including electric trucks, plug-in hybrid trucks with all-electric range, zero emission container transport technologies. In 2017, SCAQMD initiated MATES V to update the emissions inventory of toxic air contaminants and modeling to characterize risks, including measurements and analysis of ultrafine particle concentrations typically emitted or subsequently formed from vehicle exhaust. CARB is also updating its EMFAC model, which assesses emissions from on-road vehicles including cars, trucks and buses.

California currently has several incentive programs to help implement cleaner technologies, and while some additional financial resources have also recently been identified to offset the higher procurement costs of emerging clean technologies (i.e., Volkswagen Environmental Mitigation Trust which allocated \$423 million to California), significant additional resources are still needed for the scale necessary to achieve the air quality standards for this region. This is where the Clean Fuels Program can help make a significant impact. A key strategy of the Clean Fuels Program is its public-private partnership with private industry, technology developers, academic institutions, research institutions and government agencies. This public-private partnership has allowed the Program to leverage its



Source: Presentation by Mr. Cory Palmer, ARB at the Symposium on California's Development of its Phase 2 Greenhouse Gas Emission Standards for On-Road Heavy-Duty Vehicles (April 22, 2015)

Figure 21: NO_x Reduction Comparison: No New Regulations vs Low NO_x Standard in California only vs National Standard

⁵ <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7>

funding on average with \$3-\$4 of spending on R&D projects to every \$1 of SCAQMD funds. The SCAQMD aggressively seeks leverage funds to accomplish more with every dollar. Over its 30-year life, from 1988 to 2018, the Clean Fuels Program provided \$320.5 million toward projects totaling \$1.5 billion. TAO's RD³ and implementation programs have helped develop and commercialize numerous technologies, subsequently providing incentives to offset the incremental cost of the technologies. With the success of this process, the 2016 AQMP included control measures to develop indirect source regulations and strengthen the fleet rules that can take advantage of incentives provided, as a method of compliance to further accelerate the emissions reductions.

CY 2018 also marked another milestone in TAO—the 20th year of the Carl Moyer Program. The Carl Moyer Program (CMP) provides partial funding to owners of diesel engines and equipment to go beyond regulatory requirements by retrofitting, repowering or replacing their engines with newer and cleaner models. The CMP has been a successful and popular statewide air pollution reduction program enacted through legislation and plays a complementary role to California's regulatory program by providing incentives to expedite the transition to cleaner technology to obtain early or extra NO_x, PM and ROG emissions reductions. The Carl Moyer Program provides the necessary incentives to facilitate penetration of the technologies developed and demonstrated by the Clean Fuels Program. Together these two synergistic programs allow the SCAQMD to be a leader in technology development and implementation to accelerate the reduction of criteria pollutants.

Figure 22 provides a conceptual design of the wide scope of the Clean Fuels Program and the relationship with incentive programs, as well as the regulatory approaches included in the 2016 AQMP. The SCAQMD's Clean Fuels Program funds various stages of technology projects, typically ranging from Technology Readiness Levels 3-8, to provide a portfolio of emissions technology choices but to achieve emissions reduction benefits in the nearer as well as over the longer term.



Figure 22: Technology Readiness Level Stages

While the state continues to focus their attention to climate change (CO₂ reductions), the SCAQMD remains committed to being a leader in achieving NO_x reductions. Toward this end, SCAQMD focuses on developing, demonstrating and commercializing zero and near-zero emissions technologies and renewable fuels that provide concurrent CO₂ reduction benefits. Fortunately, many of the technologies that address the South Coast Basin's needed NO_x reductions align with the state's GHG reduction efforts. Furthermore, the U.S. EPA noted that the transportation sector contributed 28 percent of overall GHG emissions in 2016. Given this, coupled with their Cleaner Trucks Initiative in development, the SCAQMD is confident it can successfully partner on state and federally funded projects that promise NO_x and GHG co-benefit emissions reductions.

Program and Funding Scope

This 2019 Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near-term to long-term, that are intended to address the following challenges:

- 1) implementation of new and changing federal requirements, such as the more stringent federal 8-hour ozone standard of 70 ppb promulgated by U.S. EPA in late 2015;
- 2) implementation of new technology measures by including accelerated development of technologies getting ready for commercialization and deploying ready technologies; and
- 3) continued development of near-term cost-effective approaches and longer-term technology development.

The overall scope of projects in the 2019 Plan Update also needs to remain sufficiently flexible to address new challenges and measures that are identified in the 2016 AQMP, consider dynamically evolving technologies, and take into account new research and data. The latter, for example, might include initial findings from MATES V and revised inventories in EMFAC 2017.

Within the core technology areas defined later in this section, project objectives range from near-term to long-term. The SCAQMD Clean Fuels Program concentrates on supporting development, demonstration and technology commercialization and deployment efforts rather than fundamental research. The nature and typical time-to-product for the Program's projects is described below, from near-term to longer-term.

- *Deployment* or technology commercialization efforts focus on increasing the utilization of clean technologies in conventional applications, promising immediate and growing emissions reduction benefits. It is often difficult to transition users to a non-traditional technology or fuel due to higher costs or required changes to user behaviors, even if such a technology or fuel offers significant societal benefits. As a result, in addition to government's role to reduce risk by funding technology development and testing, one of government's roles is to support and offset any incremental cost through incentives to help accelerate the transition and use of the cleaner technology. The increased use and proliferation of these cleaner technologies often depends on this initial support and funding as well as efforts intended to increase confidence of stakeholders that these technologies are real, cost-effective in the long term and will remain applicable.
- Technologies ready to begin field *demonstration* in 2019 are expected to result in a commercial product in the 2022-2024 timeframe, and technologies being field demonstrated generally are in the process of being certified. The field demonstrations provide a controlled environment for manufacturers to gain real-world experience and address any end-user issues that may arise prior to the commercial introduction of the technology. Field demonstrations provide real-world evidence of a technology's performance to help allay any concerns by potential early adopters.
- Finally, successful technology *development* projects are expected to begin during 2019 with durations of at least two or more years. Additionally, field demonstrations to gain longer-term verification of performance may also be needed prior to commercialization. Certification and ultimate commercialization would be expected to follow. Thus, development projects identified in this plan may result in technologies ready for commercial introduction as soon as 2023-2025. Projects are also proposed that may involve the development of emerging technologies that are considered longer term and, perhaps higher risk, but with significant emission reduction potential. Commercial introduction of such long-term technologies would not be expected until 2026 or later.

Core Technologies

The following technologies have been identified as having the greatest potential to enable the emissions reductions needed to achieve NAAQS and thus form the core of the Program.

The goal is to fund viable projects in all categories. However, not all project categories will be funded in 2019 due to funding limitations, and focus will remain on control measures identified in the 2016 AQMP, with consideration for availability of suitable projects. The project categories identified below are appropriate within the context of the current air quality challenges and opportunities for technology advancement.

Within these areas, there is significant opportunity for SCAQMD to leverage its funds with other funding agencies to expedite the demonstration and eventual implementation of cleaner alternative technologies in the Basin. A concerted effort is continually made to form public private partnerships to leverage Clean Fuels funds. Two prime examples of this effort in 2018 are projects with Daimler and Volvo. The first is a \$31.3 million project with Daimler, with SCAQMD providing 28 percent of the cost-share, to develop 20 heavy-duty electric trucks with EV infrastructure that includes energy storage systems to demonstrate the trucks in real-world commercial fleet operations in and around environmental justice communities. The second is a \$44.8 million award from CARB's Greenhouse Gas Reduction Fund (GGRF) Program to conduct a wide-scale Volvo battery electric truck and off-road vehicle and infrastructure demonstration; SCAQMD has committed \$4 million in cost-share for this nearly \$90 million project from the Clean Fuels Program.

Several of the core technologies discussed below are synergistic. For example, a heavy-duty vehicle such as a transit bus or drayage truck, may utilize a hybrid electric drive train with a fuel cell operating on hydrogen fuel or an internal combustion engine operating on an alternative fuel as a range extender. Elements of the core hybrid electric system may overlap.

Priorities may shift during the year in keeping with the diverse and flexible "technology portfolio" approach. Priorities may also shift to address specific technology issues which affect residents within the SCAQMD's jurisdiction. AB 617, signed by the Governor in mid-2017, will require planning initially focused on three disadvantaged communities in our region, and additional flexibility will be needed to develop new strategies and technologies. Changes in priority may also occur to leverage opportunities such as cost-sharing by the state government, the federal government or other entities.

The following nine core technology areas are listed by current SCAQMD priorities based on the goals for 2019.

Hydrogen/Fuel Cell Technologies and Infrastructure

The SCAQMD supports hydrogen infrastructure and fuel cell technologies as one option in the technology portfolio. It is dedicated to assisting federal and state government programs to deploy light-duty fuel cell vehicles (FCVs) by supporting the required fueling infrastructure.

Calendar Years 2015-2019 have been a critical timeframe for the introduction of hydrogen fueling infrastructure. In 2014, Hyundai introduced the Tucson FCV for lease. In 2015, Toyota commercialized the Mirai, the first FCV available to consumers for purchase. In December 2016, Honda started delivering its 2017 Honda Clarity Fuel Cell. Hyundai announced plans for a new 2019 model, Nexo, available for lease or purchase at three dealerships in California. Mercedes-Benz's announcement of the EQC platform GLC F-cell plug-in hybrid fuel cell have similarly disclosed plans to introduce FCVs in 2019. Since hydrogen fueling stations need 18-36 month lead times for permitting, construction and commissioning, plans for stations need to be implemented now. While coordination efforts with the California Division of Measurement Standards (DMS) to establish standardized measurements for hydrogen fueling started in 2014, additional efforts to offer hydrogen for sale in higher volumes to

general consumers are still needed. In addition, SCAQMD continues to review the market to understand new business models and new sources of funding besides grants for construction necessary to enable the station operations to remain solvent during the early years until vehicle numbers ramp up. Lastly, a deliberate and coordinated effort is necessary to ensure that the retail hydrogen stations are developed with design flexibility to address specific location limitations, robust hydrogen supply, and with refueling reliability matching those of existing gasoline and diesel fueling stations.

In January 2018, Governor Brown issued Executive Order (EO) B-48-18. Among other provisions, the order sets an additional hydrogen station network development target of 200 stations by 2025. This is double the current target in Assembly Bill 8 (Perea), chaptered in September 2013, but set its target goal for only two years earlier (end of 2023). Meeting this new ambitious target clearly requires accelerated effort on the part of the State to ensure its achievement. The EO additionally sets a target for 5 million ZEVs by 2030; FCEVs are expected to comprise a significant portion of this future ZEV fleet.

Fuel cells can also play a role in medium- and heavy-duty applications where battery recharging time is insufficient to meet operational requirements. The California Fuel Cell Partnership's (CaFCP) 2030 Vision⁶ released in July 2018 provides a broader framework for the earlier Medium- and Heavy-Duty Fuel Cell Electric Truck Action Plan completed in October 2016, which focused on Class 4 parcel delivery trucks and Class 8 drayage trucks with infrastructure development and establishes metrics for measuring progress. Toyota Motors has displayed a second Class 8 fuel cell truck prototype with planned demonstrations at Port of Long Beach, fueling at a new 1,000 kg/day truck fueling station with Equilon, cofunded by CEC and SCAQMD, using hydrogen produced by a new tri-generation system under development. Also, SCAQMD is cofunding GGRF projects with the San Pedro Bay Ports, including one project with POLA and Kenworth for fuel cell powered trucks and hydrogen infrastructure. Kenworth will continue development on a vehicle it demonstrated in SCAQMD's ZECT 2 project. Toyota will integrate its fuel cells into ten Kenworth trucks and the project will build hydrogen fueling stations to support the demonstration and future heavy-duty hydrogen powered trucks.

The 2019 Plan Update identifies key opportunities while clearly leading the way for pre-commercial demonstrations of OEM vehicles. Future projects may include the following:

- continued development and demonstration of distributed hydrogen production and fueling stations, including energy stations with electricity and hydrogen co-production and higher pressure (10,000 psi) hydrogen dispensing and scalable/higher throughput;
- development and demonstration of cross-cutting fuel cell applications (e.g. plug-in hybrid fuel cell vehicles);
- development and demonstration of fuel cells in off-road, locomotive and marine applications such as port cargo handling equipment, switcher locomotives and tugs;
- demonstration of fuel cell vehicles in controlled fleet applications in the Basin;
- development and implementation of strategies with government and industry to build increasing scale and renewable content in the hydrogen market including certification and testing of hydrogen as a commercial fuel to create a business case for investing as well as critical assessments of market risks to guide and protect this investment; and
- coordination with fuel cell vehicle OEMs to develop an understanding of their progress in overcoming the barriers to economically competitive fuel cell vehicles and develop realistic scenarios for their large scale introduction.

⁶CaFCP's *The California Fuel Cell Revolution, A Vision For Advancing Economic, Social, and Environmental Priorities (Vision 2030)*, September 4, 2018.

- repurpose of fuel cells and hydrogen tanks for other, secondary energy production and storage uses, as well as reusing fuel cells and hydrogen tanks, and approaches to recycle catalysts and other metals.

Electric/Hybrid Technologies and Infrastructure

In an effort to meet the federal standards for PM2.5 and ozone, a primary focus must be on zero and near-zero emission technologies. A key strategy to achieve these goals is the wide-scale electrification of transportation technologies. With that in mind, the SCAQMD supports projects to address the main concerns regarding cost, battery lifetime, travel range, charging infrastructure and OEM commitment. Integrated transportation systems can encourage further reduction of emissions by matching the features of electric vehicles (zero emissions, zero start-up emissions, all electric range) to typical consumer demands for mobility by linking them to transit. Additionally, the impact of fast charging on battery life and infrastructure costs needs to be better understood. This is especially important today when every month roughly 36,000⁷ new plug-in vehicles are sold or leased in the U.S. This number will increase significantly with the introduction of vehicles with 200-plus mile ranges, such as the Chevy Bolt, launched in December 2016, the Tesla Model 3 which came out in mid-2017, and Hyundai Kona, Nissan Leaf and more to come in 2019-20.

The development and deployment of zero emission goods movement systems remains one of the top priorities for the SCAQMD to support a balanced and sustainable growth in the port complex. The SCAQMD continues to work with our regional partners, in particular the Ports of Los Angeles and Long Beach, the Southern California Association of Governments (SCAG) and Los Angeles County Metropolitan Transportation Authority (Metro) to identify technologies that could be beneficial to all stakeholders. Specific technologies include zero emissions trucks (using batteries and/or fuel cells), or plug-in hybrid powertrains, locomotives with near-zero emissions (e.g., 90% below Tier 4), electric locomotives using battery tender cars and catenary, and linear synchronous motors for locomotives and trucks. Additionally, the California Sustainable Freight Action Plan outlines a blueprint to transition the state's freight system to an environmentally cleaner, more efficient and more economical one than it is today, including a call for a zero and near-zero emissions vehicle pilot project in Southern California. The Port of Los Angeles's Sustainable City Plan corroborates this effort, setting a goal of 15 percent of zero emission goods movement trips by 2025 and 35 percent by 2035. More recently, the Clean Air Action Plan 2017 Update adopted by Ports of Los Angeles and Long Beach call for zero emissions cargo handling equipment by 2030 and zero emissions drayage trucks by 2035. SCAQMD is cost-sharing a project with the Port of Long Beach (the START Project) to develop and demonstrate 102 near-zero and zero emissions vehicles, vessels and cargo handling equipment including charging infrastructure, across an intermodal freight network spanning three California seaports and three California air districts.

There are now over 17 light-duty PHEVs certified to California's cleanest ATPZEV or TZEV standards and 16 pure battery electric vehicles (BEVs) commercially available in California. All of these vehicles offer the benefits of higher fuel economy and range, as well as lower emissions. Continued technology advancements in the light-duty infrastructure, particularly in the arena of codes and standards, have helped facilitate the development of corresponding codes and standards for medium- and heavy-duty vehicle infrastructure. Additional traction may be gained in this area as a result of the Transportation Electrification Partnership release in September 2018 of their Zero Emissions 2028 Roadmap, which sets a goal to move toward an additional 25 percent reduction in GHGs and air pollution beyond current commitments through accelerating transportation electrification. Additionally, SCE's Charge Ready Program will include funds for medium- and heavy-duty vehicles and EVSE.

⁷https://insideevs.com/december-2018-u-s-ev-sales-recap/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+InsideEvs+%28InsideEVs%29

Opportunities to develop and demonstrate technologies that could enable expedited widespread use of electric and hybrid-electric vehicles in the Basin include the following:

- demonstration of electric and fuel cell electric technologies for cargo container transport operations, e.g., heavy-duty battery electric or plug-in electric drayage trucks with all electric range;
- demonstration of medium-duty electric and fuel cell electric vehicles in package delivery operations, e.g., electric walk-in vans with fuel cell or CNG range extender;
- development and demonstration of CNG hybrid vehicle technology;
- development of hybrid vehicles and systems for ocean-going vessels and other off-road vehicles;
- demonstration of niche application battery and fuel cell electric medium- and heavy-duty vehicles, including school and transit buses and refuse trucks with short-distance fixed service routes;
- demonstration of integrated programs that make best use of electric drive vehicles through interconnectivity between fleets of electric vehicles and mass transit, and rideshare services that cater to multiple users;
- development of eco-friendly intelligent transportation system (ITS) strategies, demonstrations that encourage electric drive vehicle deployment in autonomous applications, optimized load-balancing strategies for cargo freight and market analysis for zero emission heavy-duty trucks;
- demonstration and installation of infrastructure to support battery electric and fuel cell electric vehicle light-, medium- and heavy-duty fleets currently on the roads or soon entering the market, and to reduce cost, improve convenience and integrate with battery energy storage, renewable energy and energy management strategies (e.g., vehicle-to-grid or vehicle-to-building functionality, demand response, load management);
- repurpose of EV batteries for other or second energy storage uses, as well as reusing battery packs and approaches to recycle lithium, cobalt and other metals;
- development of a methodology to increase understanding of the capability to accept fast-charging and the resultant life cycle and demonstration of the effects of fast-charging on battery life and vehicle performance; and
- deployment of infrastructure corresponding to codes and standards specific to light-, medium- and heavy-duty vehicles, including standardized connectors, fuel quality, communication, and open standards and demand response protocols for EV chargers to communicate across charging networks.

Engine Systems/Technologies

In order to achieve the emissions reductions required for the South Coast Air Basin, the internal combustion engines (ICEs) used in the heavy-duty sector will require emissions that are 90% lower than the 2010 standards. In 2016, commercialization of the Cummins 8.9 liter (8.9L) natural gas engine achieving 90% below the existing federal standard was a game changer. The 8.9L engine works well in refuse and other vocational trucks as well as transit and school buses. In 2017, Cummins Westport Inc. with SCAQMD and other project partners also achieved certification of the 12L natural gas engine. The 12L engine in Class 8 drayage trucks and 60-foot articulated transit buses is a further game changer. CARB and U.S. EPA certified both engines at 0.02 g/ bhp-hr for NO_x. For smaller and long-haul trucks that cannot utilize the 8.9L and 12L near-zero engines, the 2019 Plan Update includes potential projects to develop, demonstrate and certify engines in the 6-7L and larger 13-15L displacement. The Plan Update continues to incorporate pursuit of cleaner engines for the heavy-duty sector. Future projects will support the development, demonstration and certification of engines that can achieve these massive emissions reductions using an optimized systems approach. In December 2018, SCAQMD participated in the Natural Gas Engine & Vehicle R&D Source Review Panel meeting in Sacramento to review, discuss and prioritize several natural gas engine and vehicle technology projects that increase efficiencies using advanced engines or hybrid drive trains. The 2019 Plan includes potential projects

that the SCAQMD might participate in with federal and state agencies towards these efforts. Specifically, these projects are expected to target the following:

- development of ultra-low emissions and improved higher efficiency natural gas engines for heavy-duty vehicles and high horsepower applications projects that move these technologies to a higher technology readiness level and eventual commercialization;
- continued development and demonstration of gaseous- and liquid-fueled, advanced fuels or alternative fuel medium-duty and heavy-duty engines and vehicles;
- development and demonstration of alternative fuel engines for off-road applications;
- evaluation of alternative engine systems such as hydraulic plug-in hybrid vehicles;
- development and demonstration of engine systems that employ advanced engine design features, cylinder deactivation, improved exhaust or recirculation systems, and aftertreatment devices; and
- development of low load and cold start technologies for hybrids and diesels where high level emissions occur

The EPA's recent initiation to create a rule for a national low NO_x standard for all on highway heavy duty engines will further motivate manufacturers to develop lower-NO_x emitting technologies.

Fueling Infrastructure and Deployment (NG/Renewable Fuels)

Significant demonstration and commercialization efforts funded by the Clean Fuels Program as well as other local, state and federal agencies are underway to: 1) support the upgrade and buildup of public and private infrastructure projects, 2) expand the network of public-access and fleet fueling stations based on the population of existing and anticipated vehicles, and 3) put in place infrastructure that will ultimately be needed to accommodate transportation fuels with very low gaseous emissions.

Compressed and liquefied natural gas (CNG and LNG) refueling stations are being positioned to support both public and private fleet applications. Upgrades and expansions are also needed to refurbish or increase capacity for some of the stations installed five or more years ago as well as standardize fueling station design, especially to ensure growth of alternative fuels throughout the South Coast Air Basin and beyond. There is also growing interest for partial or complete transition to renewable natural gas delivered through existing natural gas pipelines. Funding has been provided at key refueling points for light-, medium- and heavy-duty natural gas vehicle users traveling from the local ports, along I-15 and The Greater Interstate Clean Transportation Corridor (ICTC) Network. SB 350 (De León) further established a target to double the energy efficiency in electricity and natural gas end uses by 2030.

Some of the projects expected to be developed and cofunded for infrastructure development are:

- development and demonstration of renewable natural gas as a vehicle fuel from renewable feedstocks and biowaste;
- development and demonstration of advanced, cost effective methods for manufacturing synthesis gas for conversion to renewable natural gas;
- enhancement of safety and emissions reductions from natural gas refueling equipment;
- expansion of fuel infrastructure, fueling stations, and equipment; and
- expansion of infrastructure connected with existing fleets, public transit, and transportation corridors, including demonstration and deployment of closed loop systems for dispensing and storage.

Health Impacts, Fuel and Emissions Studies

The monitoring of pollutants in the Basin is extremely important, especially when linked to (1) a particular sector of the emissions inventory (to identify the responsible source or technology) and/or (2) exposure to pollution (to assess the potential health risks). In fact, studies indicate that smoggy areas can produce irreversible damage to children's lungs. This information highlights the need for further

emissions and health studies to identify the emissions from high polluting sectors as well as the health effects resulting from these technologies.

Over the past few years, the SCAQMD has funded emission studies to evaluate the impact of tailpipe emissions of biodiesel and ethanol fueled vehicles mainly focusing on criteria pollutants and greenhouse gas (GHG) emissions. These studies showed that biofuels, especially biodiesel in some applications and duty cycles, can contribute to higher NO_x emissions while reducing other criteria pollutant emissions. Furthermore, despite recent advancements in toxicological research related to air pollution, the relationship between particle chemical composition and health effects is still not completely understood, especially for biofuels. SCAQMD funded studies in 2015 to further investigate the toxicological potential of emissions, such as ultrafine particles and vapor phase substances, and to determine whether or not other substances such as volatile or semi-volatile organic compounds are being emitted in lower mass emissions that could pose harmful health effects. In addition, as the market share for gasoline direct injection (GDI) vehicles has rapidly increased from 4% of all vehicle sales in the U.S. in 2009 to an estimated 60% by 2016, it is important to understand the impact on air quality from these vehicles. As such, SCAQMD has funded studies to investigate both physical and chemical composition of tailpipe emissions, focusing on PM from GDI vehicles as well as secondary organic aerosol formation formed by the reaction of gaseous and particulate emissions from natural gas and diesel heavy-duty vehicles. In 2017, SCAQMD initiated an in-use real-world emissions study, including fuel usage profile characterization as well as an assessment of the impact of current technology and alternative fuels on fuel consumption.

In recent years, there has also been an increased interest both at the state and national level on the use of alternative fuels including biofuels to reduce petroleum oil dependency, GHG emissions and air pollution. In order to sustain and increase biofuel utilization, it is essential to identify feedstocks that can be processed in a more efficient, cost-effective and sustainable manner. More recently, based on higher average summer temperatures noted over the past few years, there is interest on how the higher temperatures are impacting ozone formation. These types of studies may be beneficial to support the Clean Air Protection Program being developed under AB 617.

Some areas of focus include:

- demonstration of remote sensing technologies to target different high emission applications and sources;
- studies to identify the health risks associated with ultrafine and ambient particulate matter including their composition to characterize their toxicity and determine specific combustion sources;
- in-use emission studies using biofuels, including renewable diesel, to evaluate in-use emission composition;
- in-use emission studies to determine the impact of new technologies, in particular PEVs on local air quality as well as the benefit of telematics on emissions reduction strategies;
- lifecycle energy and emissions analyses to evaluate conventional and alternative fuels;
- analysis of fleet composition and its associated impacts on criteria pollutants; and
- evaluation of the impact of higher ambient temperatures on emissions of primary and secondary air pollutants.

Stationary Clean Fuel Technologies

Although stationary source NO_x emissions are small compared to mobile sources in the South Coast Air Basin, there are applications where cleaner fuel technologies or processes can be applied to reduce NO_x, VOC and PM emissions. For example, a recent demonstration project funded in part by the SCAQMD at a local sanitation district consisted of retrofitting an existing biogas engine with a digester gas cleanup system and catalytic exhaust emission control. The retrofit system resulted in significant

reductions in NO_x, VOC and CO emissions. This project demonstrated that cleaner, more robust renewable distributed generation technologies exist that could be applied to not only improve air quality, but enhance power quality and reduce electricity distribution congestion.

Additionally, alternative energy storage could be achieved through vehicle-to-grid or vehicle-to-building technologies, as well as Power-to-Gas that could allow potentially stranded renewable electricity stored as hydrogen fuel. The University of California Riverside's (UCR's) Sustainable Integrated Grid Initiative and University of California Irvine's (UCI's) Advanced Energy and Power Program, funded in part by the SCAQMD, for example could assist in the evaluation of these technologies.

Projects conducted under this category may include:

- development and demonstration of reliable, low emission stationary technologies (e.g., new innovative low NO_x burners and fuel cells);
- exploration of renewables, waste gas and produced gas sources for cleaner stationary technologies;
- evaluation, development and demonstration of advanced control technologies for stationary sources; and
- vehicle-to-grid or vehicle-to-building, or other stationary energy demonstration projects to develop sustainable, low emission energy storage alternatives.

Emissions Control Technologies

Although engine technology and engine systems research is required to reduce the emissions at the combustion source, dual fuel technologies and post-combustion cleanup methods are also needed to address the current installed base of on-road and off-road technologies. Existing diesel emissions can be greatly reduced with introduction of natural gas into the engine or via aftertreatment controls such as PM traps and catalysts, as well as lowering the sulfur content or using additives with diesel fuel. Gas-to-Liquid (GTL) fuels, formed from natural gas or other hydrocarbons rather than petroleum feedstock and emulsified diesel, provide low emission fuels for use in diesel engines. As emissions from engines become lower and lower, the lubricant contributions to VOC and PM emissions become increasingly important. The most promising of these technologies will be considered for funding, specifically:

- evaluation and demonstration of new emerging liquid fuels, including alternative and renewable diesel and GTL fuels;
- development and demonstration of renewable-diesel engines and advanced aftertreatment technologies for mobile applications (including diesel particulate traps and selective catalytic reduction catalysts) as well as non-thermal regen technology; and
- development and demonstration of low-VOC and PM lubricants for diesel and natural gas engines.

Technology Assessment and Transfer/Outreach

Since the value of the Clean Fuels Program depends on the deployment and adoption of the demonstrated technologies, outreach and technology transfer efforts are essential to its success. This core area encompasses assessment of advanced technologies, including retaining outside technical assistance as needed, efforts to expedite the implementation of low emissions and clean fuels technologies, coordination of these activities with other organizations and information dissemination to educate the end user. Technology transfer efforts include support for various clean fuel vehicle incentive programs as well cosponsorship of technology-related conferences, workshops and other events.

Target Allocations to Core Technology Areas

The figure below presents the potential allocation of available funding, based on SCAQMD projected program costs of \$16.7 million for all potential projects. The expected actual project expenditures for 2019 will be less than the total SCAQMD projected program cost since not all projects will materialize. The target allocations are based on balancing technology priorities, technical challenges and opportunities discussed previously and near-term versus long-term benefits with the constraints on available SCAQMD funding. Specific contract awards throughout 2019 will be based on this proposed allocation, the quality of proposals received and evaluation of projects against standardized criteria and ultimately SCAQMD Board approval.

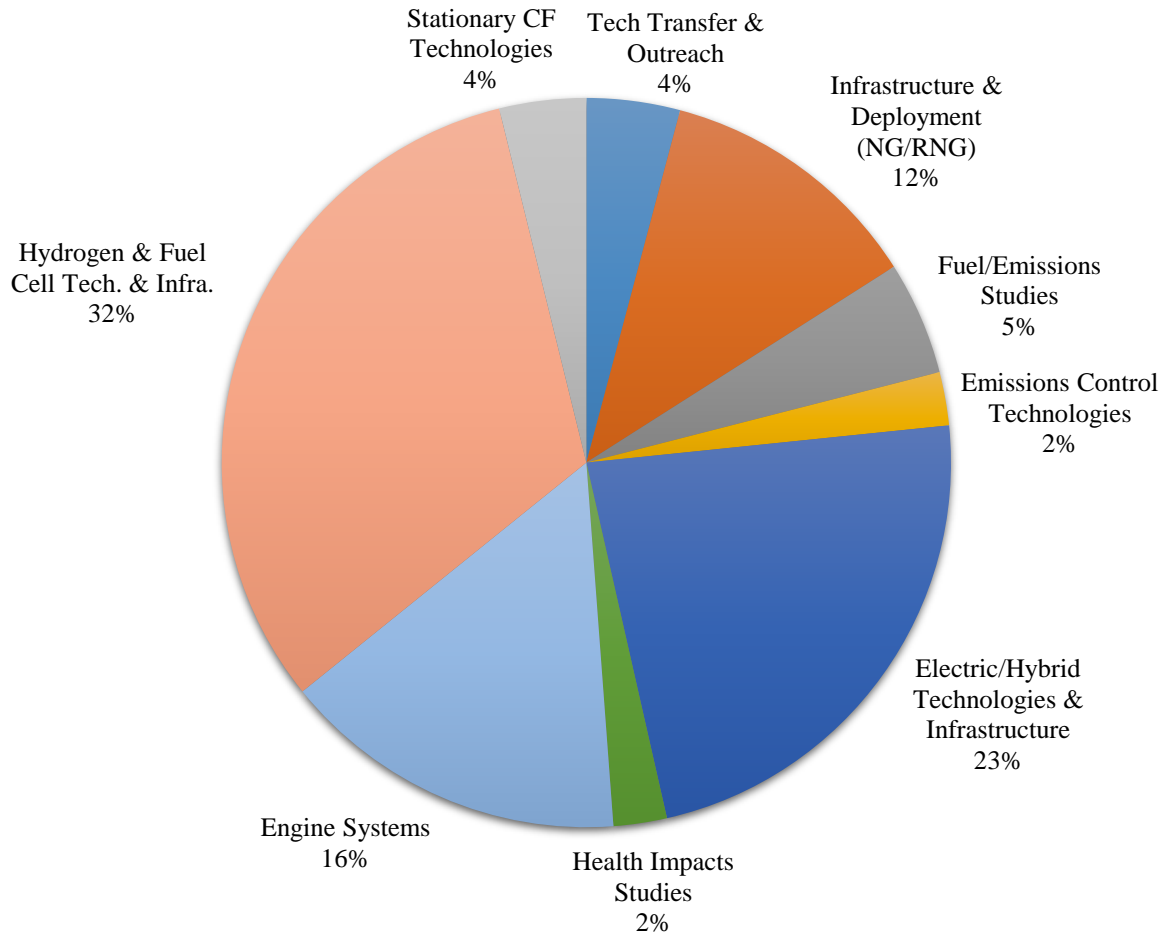


Figure 23: Projected Cost Distribution for Potential SCAQMD Projects in 2019 (\$16.9M)

CLEAN FUELS PROGRAM

Program Plan Update for 2019

This section presents the Clean Fuels Program Plan Update for 2019. The proposed projects are organized by program areas and described in further detail, consistent with the SCAQMD budget, priorities and the best available information on the state-of-the-technology. Although not required, this Plan also includes proposed projects that may be funded by revenue sources other than the Clean Fuels Program, specifically related to VOC and incentive projects.

Table 6 (page 71) summarizes potential projects for 2019 as well as the distribution of SCAQMD costs in some areas as compared to 2018. The funding allocation continues the focus on development and demonstration of zero and near-zero emission technologies including the infrastructure for such technologies. For the 2019 Draft Plan, there is a small increase for hydrogen and fuel cell technologies to incentivize large-scale hydrogen infrastructure projects at the Ports and in the Inland Empire and in light of current and projected roll out of fuel cell vehicles in 2016-2019. The SCAQMD shifted some resources to electric and hybrid-electric technologies in light of two large projects and grant awards the SCAQMD received in mid-July 2018 for a Daimler project and in September 2018 for Volvo's project which includes \$44.8 million from the GGRF Program to demonstrate vehicles in this technology area. Small funding shift to Engine Systems and Fueling Infrastructure and Deployment (natural gas and renewable fuels) is also recommended in light of large projects last year and for biogas production, respectively. The other areas will continue with similar allocations for 2019. As in prior years, the funding allocations again align well with the SCAQMD's FY 2018-19 Goals and Priority Objectives. Overall, the Program is designed to ensure a broad portfolio of technologies and leverage state and federal efforts, and maximize opportunities to leverage technologies in a synergistic manner.

Each of the proposed projects described in this Plan, once fully developed, will be presented to the SCAQMD Governing Board for approval prior to contract initiation. This Plan Update reflects the maturity of the proposed technology and identifies contractors to perform the projects, participating host sites, and securing sufficient cost-sharing needed to complete the project and other necessary factors. Recommendations to the SCAQMD Governing Board will include descriptions of the technology to be demonstrated and in what application, the proposed scope of work of the project and the capabilities of the selected contractor and project team, in addition to the expected costs and expected benefits of the projects as required by H&SC 40448.5.1.(a)(1). Based on communications with all of the organizations specified in H&SC 40448.5.1.(a)(2) and review of their programs, the projects proposed in this Plan do not appear to duplicate any past or present projects.

Funding Summary of Potential Projects

The remainder of this section contains the following information for each of the potential projects summarized in Table 6 (page 71).

Proposed Project: A descriptive title and a designation for future reference.

Expected SCAQMD Cost: The estimated proposed SCAQMD cost share as required by H&SC 40448.5.1.(a)(1).

Expected Total Cost: The estimated total project cost including the SCAQMD cost share and the cost share of outside organizations expected to be required to complete the proposed project. This is an indication of how much SCAQMD public funds are leveraged through its cooperative efforts.

Description of Technology and Application: A brief summary of the proposed technology to be developed and demonstrated, including the expected vehicles, equipment, fuels, or processes that could benefit.

Potential Air Quality Benefits: A brief discussion of the expected benefits of the proposed project, including the expected contribution towards meeting the goals of the AQMP, as required by H&SC 40448.5.1.(a)(1). In general, the most important benefits of any technology research, development and demonstration program are not necessarily realized in the near-term. Demonstration projects are generally intended to be proof-of-concept for an advanced technology in a real-world application. While emission benefits, for example, will be achieved from the demonstration, the true benefits will be seen over a longer term, as a successfully demonstrated technology is eventually commercialized and implemented on a wide scale.

Table 6: Summary of Potential Projects for 2019

Proposed Project	Expected SCAQMD Cost \$	Expected Total Cost \$
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Hydrogen/Fuel Cell Technologies and Infrastructure

Develop and Demonstrate Operation and Maintenance Business Case Strategies for Hydrogen Stations	300,000	3,500,000
Develop and Demonstrate Hydrogen Production and Fueling Stations	2,000,000	6,000,000
Develop and Demonstrate Medium- and Heavy-Duty Fuel Cell Vehicles	3,000,000	12,000,000
Demonstrate Light-Duty Fuel Cell Vehicles	100,000	100,000
Subtotal	\$5,400,000	\$21,600,000

Electric/Hybrid Technologies and Infrastructure

Develop and Demonstrate Electric and Hybrid Vehicles	2,000,000	8,000,000
Develop and Demonstrate Electric Charging Infrastructure	500,000	3,000,000
Demonstrate Alternative Energy Storage	200,000	1,500,000
Develop and Demonstrate Electric Container Transport Technologies	1,200,000	4,000,000
Subtotal	\$3,900,000	\$16,500,000

Engine Systems/Technologies

Develop and Demonstrate Advanced Gaseous- and Liquid-Fueled Medium- and Heavy-Duty Engines & Vehicle Technologies to Achieve Ultra-Low Emissions	2,000,000	8,000,000
Develop and Demonstrate Alternative Fuel and Clean Conventional Fueled Light-Duty Vehicles	200,000	1,000,000
Develop and Demonstrate Low Load and Cold-Start Technologies	200,000	1,000,000
Develop and Demonstrate Low Emissions Locomotive Technologies	200,000	1,000,000
Subtotal	\$2,600,000	\$11,000,000

Fueling Infrastructure and Deployment (NG/Renewable Fuels)

Deploy Natural Gas Vehicles in Various Applications	500,000	2,000,000
Develop, Maintain & Expand Natural Gas Infrastructure	500,000	2,000,000
Demonstrate Natural Gas Manufacturing and Distribution Technologies Including Renewables	1,000,000	10,000,000
Subtotal	\$2,000,000	\$14,000,000

Fuel/Emissions Studies

Conduct In-Use Emissions Studies for Advanced Technology Vehicle Demonstrations	300,000	800,000
Conduct Emissions Studies on Biofuels, Alternative Fuels and Other Related Environmental Impacts	300,000	1,000,000
Identify and Demonstrate In-Use Fleet Emissions Reduction Technologies & Opportunities	250,000	1,000,000
Subtotal	\$850,000	\$2,800,000

Table 6: Summary of Potential Projects for 2019 (cont'd)

Proposed Project	Expected SCAQMD Cost \$	Expected Total Cost \$
Stationary Clean Fuel Technologies		
Develop and Demonstrate Reliable, Advanced Emission Control Technologies, and Low Emission Monitoring Systems and Test Methods	100,000	250,000
Develop and Demonstrate Clean Stationary Technologies	250,000	750,000
Develop and Demonstrate Renewables-Based Energy Generation Alternatives	300,000	1,000,000
Subtotal	\$650,000	\$2,000,000
Emissions Control Technologies		
Develop and Demonstrate Advanced Aftertreatment Technologies	200,000	2,000,000
Demonstrate On-Road Technologies in Off-Road and Retrofit Applications	200,000	800,000
Subtotal	\$400,000	\$2,800,000
Health Impacts Studies		
Evaluate Ultrafine Particle Health Effects	100,000	1,000,000
Conduct Monitoring to Assess Environmental Impacts	150,000	500,000
Assess Sources and Health Impacts of Particulate Matter	150,000	300,000
Subtotal	\$400,000	\$1,800,000
Technology Assessment and Transfer/Outreach		
Assess and Support Advanced Technologies and Disseminate Information	400,000	800,000
Support Implementation of Various Clean Fuels Vehicle Incentive Programs	300,000	400,000
Subtotal	\$700,000	\$1,200,000
TOTALS FOR POTENTIAL PROJECTS	\$16,900,000	\$73,700,000

Technical Summaries of Potential Projects

Hydrogen/Fuel Cell Technologies and Infrastructure

Proposed Project: Develop and Demonstrate Operation and Maintenance Business Case Strategies for Hydrogen Stations

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$3,500,000

Description of Technology and Application:

California regulations require automakers to place increasing numbers of zero emission vehicles into service every year. By 2050, CARB projects that 87% of light-duty vehicles on the road will be zero emission battery and fuel cell vehicles with fuel cell electric becoming the dominant powertrain.

In 2013, cash-flow analysis resulting in a Hydrogen Network Investment Plan and fuel cell vehicle development partnership announcements by major automakers enabled the passage of AB 8 which provides \$20 million per year for hydrogen infrastructure cofunding through the CEC. This resulted in fuel cell vehicle production announcements by Hyundai, Toyota and Honda in 2014-2015.

In October 2016, the CaFCP released its Medium- and Heavy-Duty Fuel Cell Electric Truck Action Plan focusing on Class 4 parcel delivery trucks and Class 8 drayage trucks with infrastructure development and establishing metrics for measuring progress. More recently, in July 2018, the CaFCP released a Vision 2030 document establishing a roadmap for future fuel cell vehicle and hydrogen refueling stations, including barriers that need to be overcome.

In 2015, Hyundai and Toyota introduced fuel cell vehicles, with Honda initiating delivery in 2016 and others following in 2017 or soon thereafter. Government actions over the last couple of years, coupled with early adopter response, is helping to establish demand and thus a business case model for hydrogen stations.

Additional work in this project category includes (1) developing a plan to secure long-term funding to complete the hydrogen fueling network build-out; (2) providing details how funding can be invested; (3) assessing alternative revenue streams such as renewable incentives; (4) proposing alternative financing structures to leverage/extend CEC funding; and (5) supporting station operation during the transition to commercial viability, including optimizing designs with flexibility to address individual site characteristics, as well as ensuring higher levels of dispensing availability and reliability.

Furthermore, in the next couple of years an evaluation of actual market penetration of FCVs should be conducted to guide and protect local and state investments in the hydrogen market.

Potential Air Quality Benefits:

The 2016 AQMP identifies the use of alternative fuels and zero emission transportation technologies as necessary to lower NOx and VOC emissions, in an effort to meet federal air quality standards. One of the major advantages of Fuel Cell vehicles (FCEVs) is the fact that they use hydrogen, a fuel that can be domestically produced from a variety of resources such as natural gas (including biogas), electricity (stationary turbine technology, solar or wind) and biomass. The technology and means to produce hydrogen fuel to support FCEVs are available now. The deployment of large numbers of FCEVs, which is one strategy to attain air quality goals, requires a well-planned and robust hydrogen fueling infrastructure. This SCAQMD project, with significant additional funding from other governmental and private entities, will provide the hydrogen fueling infrastructure that is necessary in the South Coast Air Basin. The deployment of FCEVs and the development of the necessary fueling infrastructure

Proposed Project: Develop and Demonstrate Distributed Hydrogen Production and Fueling Stations

Expected SCAQMD Cost: \$2,000,000

Expected Total Cost: \$6,000,000

Description of Technology and Application:

Alternative fuels, such as hydrogen and the use of advanced technologies, such as fuel cell vehicles, are necessary to meet future clean air standards. A key element in the widespread acceptance and resulting increased use of alternative fuel vehicles is the development of a reliable and robust infrastructure to support the refueling of vehicles, cost-effective production and distribution and clean utilization of these new fuels.

A challenge to the entry and acceptance of direct-hydrogen fuel cell vehicles is the limited number and scale of hydrogen refueling and production sites. This project would support the development and demonstration of hydrogen refueling technologies. Proposed projects would address:

Fleet and Commercial Refueling Stations: Further expansion of the hydrogen fueling network based on retail models, providing renewable generation, adoption of standardized measurements for hydrogen refueling, other strategic refueling locations and dispensing pressure of up to 10,000 psi and compatibility with existing CNG stations may be considered.

Energy Stations: Multiple-use energy stations that can produce hydrogen for fuel cell vehicles or for stationary power generation are considered an enabling technology with the potential for costs competitive with large-scale reforming. System efficiency, emissions, hydrogen throughput, hydrogen purity and system economics will be monitored to determine the viability of this strategy for hydrogen fueling infrastructure deployment and as a means to produce power and hydrogen from renewable feedstocks (e.g., biomass, digester gas).

Innovative Refueling Appliances: Home or small scale refueling/recharging is an attractive advancement for alternative clean fuels due to the limited conventional refueling infrastructure. This project would evaluate a hydrogen innovative refueler for cost, compactness, performance, durability, emission characteristics, ease of assembly and disassembly, maintenance and operations. Other issues such as setbacks, building permits, building code compliance and UL ratings for safety would also be evaluated.

Projections for on-the-road FCEV counts now exceed 23,000 in 2021 and 47,000 in 2024 in California and the majority of these do not include medium- and heavy-duty vehicles that may be deployed in the South Coast Air Basin. To provide fuel for these vehicles, the hydrogen fueling infrastructure needs to be significantly increased and become more reliable in terms of availability. SCAQMD will seek additional funding from CEC and CARB to construct and operate hydrogen fueling stations and take advantage of funding opportunities that may be realized by any momentum created by the Governor's 2018 Executive Order to establish 200 stations by 2025.

Potential Air Quality Benefits:

The 2016 AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. Pursuant to AQMP goals, the SCAQMD has in effect several fleet rules that require public and certain private fleets to purchase clean-burning alternative-fueled vehicles when adding or replacing vehicles to their vehicle fleets. Fuel cell vehicles constitute some of the cleanest alternative-fuel vehicles today. Since hydrogen is a key fuel for fuel cell vehicles, this project would address some of the barriers faced by hydrogen as a fuel and thus assist in accelerating its acceptance and ultimate commercialization. In addition to supporting the immediate deployment of the demonstration fleet, expanding the hydrogen fuel infrastructure should contribute to the market acceptance of fuel cell technologies in the long run, leading to substantial reductions in NO_x, VOC, CO, PM and toxic compound emissions from vehicles.

Proposed Project: Develop and Demonstrate Medium- and Heavy-Duty Fuel Cell Vehicles

Expected SCAQMD Cost: \$3,000,000

Expected Total Cost: \$12,000,000

Description of Technology and Application:

This proposed project would support evaluation including demonstration of promising fuel cell technologies for applications using direct hydrogen with proton exchange membrane (PEM) fuel cell technology. Battery dominant fuel cell hybrids are another potential technology as a way of reducing costs and potentially enhancing performance of fuel cell vehicles.

The California ZEV Action Plan specifies actions to help deploy an increasing number of zero emission vehicles, including medium- and heavy-duty ZEVs. CARB recently adopted Innovative Clean Transit Bus Regulation as another driver. Fleets are useful demonstration sites because economies of scale exist in central refueling, in training skilled personnel to operate and maintain the vehicles, in the ability to monitor and collect data on vehicle performance and for manufacturer technical and customer support. In some cases, medium- and heavy-duty fuel cell vehicles could leverage the growing network of hydrogen stations, providing an early base load of fuel consumption until the number of passenger vehicles grows. These vehicles could include hybrid-electric vehicles powered by fuel cells and equipped with batteries capable of being charged from the grid and even supplying power to the grid.

In 2012, the DOE awarded SCAQMD funds to demonstrate Zero Emission Container Transport (ZECT) technologies. In 2015, the DOE awarded SCAQMD additional funds to develop and demonstrate additional fuel cell truck platforms and vehicles under ZECT II. More recently, the Clean Fuels Program cost-shared the development of transit buses at OCTA and will cost-share the demonstration of trucks and hydrogen stations to support the Port of Los Angeles project. More projects like these are anticipated as the OEMs come on board.

This category may include projects in the following applications:

On-Road: Transit Buses Shuttle Buses Medium- & Heavy-Duty Trucks	Off-Road: Vehicle Auxiliary Power Units Construction Equipment Lawn and Garden Equipment Cargo Handling Equipment
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Potential Air Quality Benefits:

The 2016 AQMP identifies the need to implement zero emission vehicles. SCAQMD adopted fleet regulations require public and some private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. In the future, such vehicles could be powered by zero emission fuel cells operating on hydrogen fuel. The proposed projects have the potential to accelerate the commercial viability of fuel cell vehicles. Expected immediate benefits include the establishment of zero- and near-zero emission proof-of-concept vehicles in numerous applications. Over the longer term, the proposed projects could help foster wide-scale implementation of zero emission fuel cell vehicles in the Basin. The proposed projects could also lead to significant fuel economy improvements, manufacturing innovations and the creation of high-tech jobs in Southern California, besides realizing the air quality benefits projected in the AQMP as well as GHG emissions reductions.

Proposed Project: Demonstrate Light-Duty Fuel Cell Vehicles

Expected SCAQMD Cost: \$100,000

Expected Total Cost: \$100,000

Description of Technology and Application:

This proposed project would support the demonstration of limited production and early commercial fuel cell passenger vehicles using gaseous hydrogen with proton exchange membrane (PEM) fuel cell technology, mainly through showcasing this technology. Recent designs of light-duty fuel cell vehicles include hybrid batteries to recapture regenerative braking and improve overall system efficiency.

With the implementation of the California ZEV Action Plan, supplemented by the existing and planned hydrogen refueling stations in the Southern California area, light-duty fuel cell limited-production vehicles are planned for retail deployment in early commercial markets near hydrogen stations by several automakers. Fleets are useful demonstration sites because economies of scale exist in central refueling, in training skilled personnel to operate and maintain the vehicles, in the ability to monitor and collect data on vehicle performance and for manufacturer technical and customer support. SCAQMD has included fuel cell vehicles as part of its demonstration fleet since our first hydrogen station began operation in 2005; strengthening support, education, and outreach regarding fuel cell vehicle technology on an on-going basis. In addition, demonstration vehicles could include hybrid-electric vehicles powered by fuel cells and equipped with larger batteries capable of being charged from the grid and even supplying power to the grid.

Hyundai, Toyota and Honda have commercialized fuel cell vehicles in California, but the first commercial FCV leases are ending, and solo carpool lane access extends only for MY 2017 and later, encouraging new replacements. Mercedes-Benz announced its pre-production of GLC F-Cell plug-in fuel cell model to be introduced at the end of 2019. Hyundai also has announced its Nexa, their next-Generation Fuel Cell SUV, which was delivered to the first customer in California before the end of 2018. Innovative strategies and demonstration of dual fuel, zero emission vehicles could expand the acceptance of battery electric vehicles and accelerate the introduction of fuel cells in vehicle propulsion.

Potential Air Quality Benefits:

The 2016 AQMP identifies the need to implement zero emission vehicles. SCAQMD adopted fleet regulations require public and some private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. In the future, such vehicles could be powered by zero emission fuel cells operating on hydrogen fuel. The proposed projects have the potential to accelerate the commercial viability of fuel cell vehicles. Expected immediate benefits include the deployment of zero-emission vehicles in SCAQMD's demonstration fleet. Over the longer term, the proposed projects could help foster wide-scale implementation of zero emission fuel cell vehicles in the Basin. The proposed projects could also lead to significant fuel economy improvements, manufacturing innovations and the creation of high-tech jobs in Southern California, besides realizing the air quality benefits projected in the AQMP.

Electric/Hybrid Technologies and Infrastructure

Proposed Project: Develop and Demonstrate Electric and Hybrid Vehicles

Expected SCAQMD Cost: \$2,000,000

Expected Total Cost: \$8,000,000

Description of Technology and Application:

The significance of transportation in overall carbon emissions is increasing as energy utilities move toward cleaner and more sustainable ways to generate electricity. In the United States, the EPA estimated that in 2016, transportation was responsible for about 28% of the nation's carbon emissions, while electricity sector emissions declined from 31% to 28%.

The global light-duty vehicle market is changing rapidly in response to government-led initiatives to improve fuel economy and market demand for alternative transportation options. These changes are being driven primarily by the adoption of vehicles with various levels of drivetrain electrification. The SCAQMD has long supported the concept of using increased battery power to allow a portion of the driving cycle to occur in all-electric mode for true zero emission miles. This battery dominant strategy is accomplished by incorporating an advanced battery pack initially recharged from the household grid or EV chargers. This "plug-in" hybrid EV strategy allows reduced emissions and improved fuel economy. Most automobile manufacturers have announced production plans for a range of electrified vehicle powertrains, including "blended" plug-in hybrid electric, extended-range electric vehicles (E-rEV), or battery electric vehicles (BEVs). Electric utilities refer to PHEVs, E-rEVs and BEVs as plug-in electric drive vehicles (PEVs) and are working with automakers to support PEVs. Long-range BEVs are now becoming price competitive after subsidies and affordable 200+ mile BEVs should have a big impact on the vehicle market. Plug-in hybrids (PHEVs) are also making incremental advances. Competition between automakers should also help improve technology and bring down costs. Recently, for example, Volkswagen teamed up with Ford to develop an EV to compete against Tesla's significant market share. Continued market expansion is likely to result as OEMs have announced significant investment in PEVs together with a shift in their product mix from sedans to the larger vehicles consumers are demanding, including crossovers, SUVs, and light-duty trucks.

The SCAQMD has long been a leader in promoting early demonstrations of next generation light-duty vehicle propulsion technologies (and fuels). However, given the current and planned market offerings in this category, priorities have shifted. Nevertheless, the SCAQMD will continue to evaluate market offerings and proposed technologies in light-duty vehicles to determine if any future support is required.

Medium- and heavy-trucks make up 4.3% of vehicles in the United States and drive 9.3% of all miles driven each year, yet are responsible for more than 25% of all the fuel burned annually. Hybrid technologies have gained momentum in the light-duty sector with commercial offerings by most of the automobile manufacturers. Unfortunately, the medium- and heavy-duty platforms require the greatest emissions reductions, especially for the fleets due to low turnover.

CARB's Low Carbon Transportation programs, local support and federal funds have collectively accelerated the development and demonstration of medium-duty plug-in hybrid electric truck platforms. Analysis of project data and use profiles will help optimize drive systems, target applications for early commercialization and fill gaps in product offerings.

The SCAQMD has investigated the use of hybrid technologies to achieve similar performance as the conventional-fueled counterparts while achieving both reduced emissions and improved fuel economy. Development and validation of emission test procedures is needed, but is complicated due to the low volume and variety of medium- and heavy-duty vehicles.

Platforms to be considered include utility trucks, delivery vans, shuttle buses, transit buses, waste

haulers, construction equipment, cranes and other off-road vehicles. Innovations that may be considered for demonstration include: advancements in the auxiliary power unit, either ICE or other heat engine; battery-dominant hybrid systems utilizing off-peak re-charging, with advanced battery technologies. Alternative fuels are preferred in these projects, e.g., natural gas, especially from renewable sources, LPG, hydrogen, GTL and hydrogen-natural gas blends, but conventional fuels such as gasoline, renewable diesel, or even modified biodiesel may be considered if the emissions benefits can be demonstrated as equivalent or superior to alternative fuels. Both new designs and retrofit technologies and related charging infrastructure will be considered.

This project category will develop and demonstrate:

- various PEV architectures;
- anticipated costs for such architectures;
- customer interest and preferences for each alternative;
- integration of the technologies into prototype vehicles and fleets;
- evaluation of any new promising light-duty vehicle propulsion technologies or fuels; and
- electric and hybrid-electric medium- and heavy-duty vehicles (e.g., utility trucks, delivery vans, shuttle buses, transit buses, waste haulers, construction equipment, cranes and other off-road vehicles)

Potential Air Quality Benefits:

The 2016 AQMP identifies zero or near-zero emitting vehicles as a key attainment strategy. Plug-in HEV technologies have the potential to achieve near-zero emissions while retaining the range capabilities of a conventionally gasoline-fueled combustion engine vehicle, a key factor expected to enhance broad consumer acceptance. Given the variety of PEV systems under development, it is critical to determine the true emissions and performance utility compared to conventional vehicles. Successful demonstration of optimized prototypes would promise to enhance the deployment of near-ZEV and ZEV technologies.

Expected benefits include the establishment of criteria for emissions evaluations, performance requirements, and customer acceptability of the technology. This will help both regulatory agencies and OEMs to expedite introduction of zero and near-zero emitting vehicles in the South Coast Basin, which is a high priority of the AQMP.

Proposed Project: Develop and Demonstrate Electric Charging Infrastructure**Expected SCAQMD Cost:** \$500,000**Expected Total Cost:** \$3,000,000**Description of Technology and Application:**

There is a critical need to address gaps in EV charging infrastructure availability. Almost half (48%) of the 1,064,346 EVs sold in the U.S. since 2011 were in California, and of those sales in California, it is estimated that almost half (43%) of CVRP rebates issued to date were issued in SCAQMD. In addition, the California ZEV Action Plan, which was updated in 2018, calls for 5 million ZEVs and supporting infrastructure by 2030.

The recent adoption of revised recommended practice SAE J1772 enables passenger vehicles to charge from 240V AC (Level 2) and 480V DC charging using a common conductive connector in 30 minutes for 90 miles of range (50 kW fast charger) or 40 minutes for 200 miles of range (135 kW Tesla fast charger). Together with the growing adoption of long range EVs above 200 mile electric range, the technology and infrastructure of three fast charging systems (CCS, CHAdeMO and Tesla) are developing as well, although China recently adopted a standard based on CHAdeMO. Technological developments improving the driving range of EVs, as well as increasing availability and speed of charging infrastructure, could change the need for charging infrastructure in the future. However, a study of fast-charging impact on battery life and degradation is very limited. The research and demonstration to increase understanding of the degradation effects of fast-charging will have implications on what types of charging EV owners will leverage and what EVSE stakeholders will bring to market. SCAQMD is committed to continuing to support the successful deployment of EV charging infrastructure as well as demonstration of fast-charging effect on battery life, leveraging funds from the state and the Volkswagen settlement.

The SCAQMD is actively pursuing development of intelligent transportation systems to improve traffic efficiency of battery electric and fuel cell electric cargo container trucks. This system provides truck drivers real-time vehicle operation advice based on changing traffic and road conditions where trucks can dynamically change their speed to better flow through intersections. A truck eco-routing system can provide the most eco-friendly travel route based on truck engine/emission control characteristics, loaded weight, road grade and real-time traffic conditions. Integrated programs can interconnect fleets of electric drive vehicles with mass transit via Web-based reservation systems that allow multiple users. These integrated programs can match the features of EVs (zero emissions, zero start-up emissions, short range) to typical consumer demands for mobility in a way that significantly reduces emissions of pollutants and greenhouse gases.

This project category is one of SCAQMD's continued efforts to:

- deploy a network of DC fast charging infrastructure (up to 350kW) and rapidly expand the existing network of public plug-in EV charging stations including energy storage systems;
- support investigation of fast-charging impact on battery life;
- develop intelligent transportation system strategies for cargo containers; and
- develop freight load-balancing strategies as well as to conduct market analysis for zero emission heavy-duty trucks in goods movement.

Potential Air Quality Benefits:

The 2016 AQMP identifies zero emissions vehicles as a key attainment strategy. This proposed project category will reduce PM pollution along major roadways through the expansion of the public EV charging infrastructure network by allowing drivers to shift away from petroleum-fueled vehicles to battery and fuel cell electric vehicles. In addition, this project will assist in achieving improved fuel economy and lower tailpipe emissions, further helping the region to achieve federal ambient air quality

standards and protect public health. Expected benefits include the establishment of criteria for emissions evaluations, performance requirements and customer acceptability of the technology. This will help both regulatory agencies and OEMs to expedite introduction of zero emissions vehicles in the South Coast Basin, which is a high priority of the AQMP.

Proposed Project: Demonstrate Alternative Energy Storage

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,500,000

Description of Technology and Application:

The SCAQMD has been involved in the development and demonstration of energy storage systems for electric and hybrid-electric vehicles, mainly lithium ion chemistry battery packs. Over the past few years, new technologies, especially lithium-ion batteries have shown robust performance. Other technology manufacturers have also developed energy storage devices including beyond lithium-ion batteries, flywheels, hydraulic systems and ultracapacitors. Energy storage systems optimized to combine the advantages of ultracapacitors and high-energy but low-power advanced batteries could yield benefits. Beyond lithium-ion batteries (e.g., lithium-sulfur, lithium-oxygen, sodium-ion, flow, and solid-state batteries) also have opportunities to achieve higher energy density, longer cycle life, and lower cost.

This project category is to apply these advanced storage technologies in vehicle platforms to identify best fit applications, demonstrate their viability (reliability, maintainability and durability), gauge market preparedness, evaluate costs relative to current lithium-ion batteries and provide a pathway to commercialization.

The long-term objective of this project is to decrease fuel consumption and resulting emissions without any changes in performance compared to conventional vehicles. This effort will support several projects for development and demonstration of different types of low emission hybrid vehicles using advanced energy storage strategies and conventional or alternative fuels. The overall net emissions and fuel consumption of these types of vehicles are expected to be much lower than traditional engine systems. Both new and retrofit technologies will be considered.

Additionally, this project will also assess potential for repurposing of electric vehicle batteries for storage as well as the longer term more cost-effective recycling approaches currently in a nascent “pilot” stage, especially for metals such as Lithium and Cobalt.

Potential Air Quality Benefits:

Certification of low emission vehicles and engines and their integration into the Basin’s transportation sector is a high priority under the 2016 AQMP. This project is expected to further efforts to develop alternative energy storage technologies that could be implemented in medium- and heavy-duty trucks, buses and other applications. Benefits will include proof of concept for the new technologies, diversification of transportation fuels and lower emissions of criteria, toxic pollutants and greenhouse gases.

Proposed Project: Develop and Demonstrate Electric Container Transport Technologies

Expected SCAQMD Cost: \$1,200,000

Expected Total Cost: \$4,000,000

Description of Technology and Application:

Advanced transportation systems can be used to transfer cargo containers from ports to both local and “distant” intermodal facilities, thereby significantly reducing emissions from on-road trucks and locomotives and also reducing traffic congestion in local transportation corridors. Some solutions involve using wayside power such as fixed dedicated guideways to move containers powered by magnetic levitation or catenary electric lines. While these types of solutions are elegant and futuristic, they are expensive and difficult to implement in industrial urban environments where they are needed. Previous efforts, including one project with Siemens eHighway catenary hybrid truck system has highlighted complications of building a new infrastructure within an existing infrastructure. Wayside power systems are not excluded in the solutions for addressing the air quality issues we face, though until cost and implementation challenges are addressed, there are more viable technologies that exist and are being pursued.

There are other options for electric container applications such as dual-mode locomotives, hybrid electric technologies with battery storage, a battery tender car and fuel cell propulsion systems. This technical review will evaluate all available technology options to determine whether their systems can be successfully developed and deployed, financially viable, and reliably operated on a long-term basis.

Potential Air Quality Benefits:

On-road heavy-duty diesel truck travel is an integral part of operations at the ports moving cargo containers into the Basin and beyond. The 2016 AQMP proposes to reduce emissions from this activity by modernizing the fleet and retrofitting NOx and PM emission controls on older trucks. To modernize the fleet, SCAQMD’s approach is to engage OEMs to develop advanced heavy-duty trucks with battery electric, fuel cell electric and hybrid electric propulsion for transporting containers on roadways. The emissions benefits have not yet been estimated because the fate of the displaced trucks has not been determined.

Engine Systems/Technologies

Proposed Project: Develop and Demonstrate Advanced Gaseous- and Liquid-Fueled Medium- and Heavy-Duty Engines and Vehicles Technologies to Achieve Ultra-Low Emissions

Expected SCAQMD Cost: \$2,000,000

Expected Total Cost: \$8,000,000

Description of Technology and Application:

The objective of this proposed project would be to support development and certification of near commercial prototype low-emission medium- and heavy-duty gaseous- and liquid-fueled engine technologies, as well as integration and demonstration of these technologies in on-road vehicles. The NO_x emissions target for this project area is 0.02 g/bhp-hr and lower and the PM emissions target is below 0.01 g/bhp-hr. To achieve these targets, an effective emission control strategy must employ advanced fuel system and engine design features, aggressive engine calibration and improved thermal management, improved exhaust gas recirculation systems, and aftertreatment devices that are optimized using a system approach. This effort is expected to result in several projects, including:

- development and demonstration of advanced engines in medium- and heavy-duty vehicles and high horsepower applications;
- development of durable and reliable retrofit technologies to partially or fully convert engines and vehicles from petroleum fuels to alternative fuels; and
- field demonstrations of advanced technologies in various fleets operating with different classes of vehicles. Anticipated fuels for these projects include but are not limited to alternative fuels (fossil fuel-based and renewable natural gas, propane, hydrogen blends, electric and hybrid), conventional and alternative diesel fuels, ultra-low sulfur diesel, renewable diesel, dimethyl ether and gas-to-liquid fuels.

The use of alternative fuel in heavy-duty trucking applications has been demonstrated in certain local fleets within the Basin. These vehicles typically require 200-400 horsepower engines. Higher horsepower alternative fuel engines are beginning to be introduced. However, vehicle range, lack or limited accessible public infrastructure, lack of experience with alternative fuel engine technologies and limited selection of appropriate alternative fuel engine products have made it difficult for more firms to consider significant use of alternative fuel vehicles. For example, in recent years, several large trucking fleets have expressed interest in using alternative fuels. However, at this time the choice of engines over 400 HP or more is limited. Continued development of cleaner dedicated alternative gaseous- or diesel-fueled engines over 400 HP with lower NO_x emissions, would increase availability to end-users and provide additional emission reductions.

Potential Air Quality Benefits:

This project is intended to expedite the commercialization of near zero emission gaseous- and liquid-fueled medium- and heavy-duty engine technology both in the Basin and in intrastate operation. The emission reduction benefit of replacing one 4.0 g/bhp-hr heavy-duty engine with a 0.2 g/bhp-hr engine in a vehicle that consumes 10,000 gallons of fuel per year is about 1,400 lb/yr of NO_x. A heavy-duty 8.9L and 11.9L engines using natural gas and achieving NO_x emissions of 0.02 g/bhp-hr have been certified and commercialized, with larger displacement and advanced technology (e.g. opposed piston) engines undergoing development. Further, neat or blended alternative fuels can also reduce heavy-duty engine particulate emissions by over 90 percent compared to current diesel technology. This project is expected to lead to increased availability of low-emission alternative fuel heavy-duty engines. Fleets can use the engines and vehicles emerging from this project to comply with SCAQMD fleet regulations and towards implementation of the 2016 AQMP control measures.

Proposed Project: Develop and Demonstrate Alternative Fuel and Clean Conventional Fueled Light-Duty Vehicles

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

Although new conventionally fueled vehicles are much cleaner than their predecessors, not all match the lowest emissions standards often achieved by alternative fuel vehicles. This project would assist in the development, demonstration and certification of both alternative-fueled and conventional-fueled vehicles to meet the strictest emissions requirements by the state, e.g., SULEV for light-duty vehicles. The candidate fuels include CNG, LPG, ethanol, GTL, clean diesel, modified bio-diesel and ultra low-sulfur diesel, and other novel technologies. The potential vehicle projects may include:

- certification of CNG light-duty sedans and pickup trucks used in fleet services;
- assessment of “clean diesel” vehicles, including hybrids and their ability to attain SULEV standards; and
- assessment of other clean technologies.

Other fuel and technology combinations may also be considered under this category.

Potential Air Quality Benefits:

The 2016 AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. Pursuant to AQMP goals, the SCAQMD has in effect several fleet rules that require public and certain private fleets to purchase clean-burning alternative-fueled vehicles when adding or replacing vehicles to their vehicle fleets. This project is expected to lead to increased availability of low emission alternative-and conventional-fueled vehicles for fleets as well as consumer purchase.

Proposed Project: Develop and Demonstrate Low Load and Cold-Start Technologies

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

Cold starts and low loads of internal combustion engines have a negative impact on the environment. The thermal efficiency of the internal combustion engine is significantly lower at cold-starts and lower loads. Exhaust aftertreatment systems require a temperature of 250 degrees Celsius or higher to operate at the highest level of emissions reduction efficiency. Diesel engines at cold start increase emissions as much as 10% compared to spark-ignited CNG engines. At low loads, an aftertreatment system often may operate at 150 degrees Celsius. It is also now known that the smaller hybrid engines are experiencing similar warm-up issues due to the on-off drive cycles. The need for thermal efficiency at start-up has led to a variety of suggestions and trials. The primary goal is to reduce energy losses so that systems and components such as the catalytic converter system reach and maintain their intended operating temperature range as soon as possible after engine start. In most cases, adaptation of algorithms associated with fuel injection timing, cylinder deactivation, EGR fraction, turbo control, lubrication warming, SCR pre-heaters and close coupled catalysts can be used to keep the catalyst at the correct operating temperature. This project is to investigate technology to improve catalyst temperature at start-up and low loads with minimal economic impact and time. This technology could be applied to a range of vehicles from hybrid-electric light-duty vehicles to heavy-duty trucks. Emphasis should be on steady temperature control at optimal degrees already proven and established through significant research. The following items are the most recently developed best practices with respect to cost and functionality.

- design and prove cylinder activation technology;
- develop control algorithms to ensure the catalyst maintains temperature throughout the duty cycle.

The project would be implemented, and fleet tested, and recorded over a minimum twelve month period. Further projects can develop from this technology and should be tested in regards to other liquid fuel burning engines.

Potential Air Quality Benefits:

The technology to reduce emissions at cold starts and low loads is beneficial to a broad spectrum of vehicles from hybrid electric, light-duty and heavy-duty engines in drayage long haul trucks. The advancement in this technology will directly contribute toward low NO_x required as a result of U.S. EPA's heavy-duty engine standard and the current attainment policies in effect. Eliminating cold starting engine issues also directly creates a co-benefit of reducing fuel consumption.

Proposed Project: Develop and Demonstrate Low Emissions Locomotive Technologies

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

The objective of this project is to support the development and demonstration of gaseous and liquid fueled locomotive engines. The requirements of locomotive engines as primary generators of electricity to power the locomotive poses serious challenges. Locomotives operate at a specific duty cycle different than conventional on-road engines. The engines often run at low speed and have extended periods of idle time. The durability requirements also surpass other forms of transportation.

Large displacement gaseous fueled engines do not currently exist to power locomotives. The early stages of development of engines and systems to fill this need is currently on-going. Engines are expected to be below the current 0.2g/bhp-hr low NOx standard. The adaptation of alternative fueled locomotives in coordination with required infrastructure improvement by leading manufacturers in the industry shows great potential for further research and cost savings with less maintenance costs and better reliability.

Potential Air Quality Benefits:

This project is expected to reduce emissions around 97 tons per year of NOx for each locomotive. The reduction of PM and CO2 also shows great potential mitigation in environmental justice communities.

Fueling Infrastructure and Deployment (NG/Renewable Fuels)

Proposed Project: Deploy Natural Gas Vehicles in Various Applications

Expected SCAQMD Cost: \$500,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

Natural gas vehicles (NGVs) have been very successful in reducing emissions in the South Coast Air Basin due to the deployment of fleets and heavy-duty vehicles utilizing this clean fuel. In order to maintain the throughput, utility and commercial potential of the natural gas infrastructure and the corresponding clean air benefits, deploying additional models of NGVs in existing applications are needed. This technology category seeks to support the implementation of early-commercial vehicles in a wide variety of applications, such as taxis, law enforcement vehicles, shuttle buses, delivery vans, transit buses, waste haulers, Class 8 tractors and off-road equipment such as construction vehicles and yard hostlers. It also seeks to deploy low-emission natural gas vehicles using renewable fuels to achieve further emission reductions.

Potential Air Quality Benefits:

Natural gas vehicles have inherently lower engine criteria pollutant emissions than conventional vehicles, especially in the heavy-duty applications where older diesel engines are being replaced. Incentivizing these vehicles in city fleets, goods movement applications and transit bus routes help to reduce the local emissions and exposure to nearby residents. Natural gas vehicles also can have lower greenhouse gas emissions and increase energy diversity depending on the feedstock and vehicle class. Deployment of additional NGVs is consistent with SCAQMD's AQMP as well as the state's Alternative Fuels Plan as part of AB 1007 (Pavley).

Proposed Project: Develop, Maintain & Expand Natural Gas Infrastructure

Expected SCAQMD Cost: \$500,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

This project supports the development, maintenance and expansion of natural gas fueling station technologies to increase the overall number of such fueling stations in strategic locations throughout the Basin including the Ports. The intent is to develop and demonstrate advanced technologies to reduce the cost of natural gas equipment, develop and demonstrate closed loop systems for dispensing and storage, standardize fueling station design and construction and help with the implementation of SCAQMD's fleet rules. As natural gas fueling equipment begins to age or has been placed in demanding usage, components will deteriorate. This project offers facilities to replace worn-out equipment or to upgrade existing fueling and/or garage and maintenance equipment to offer increased fueling capacity to public agencies, private fleets and school districts.

Potential Air Quality Benefits:

The AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. NGVs have significantly lower emissions than gasoline vehicles and represent the cleanest internal combustion engine powered vehicles available today. The project has the potential to significantly reduce the installation and operating costs of NGV refueling stations, besides improving the refueling time. While new or improved NGV stations have an indirect emissions reduction benefit, they help facilitate the introduction of low emission, NGVs in private and public fleets in the area, which have a direct emissions reduction benefit. The increased exposure and fleet and consumer acceptance of NGVs would lead to significant and direct reductions in NO_x, VOC, CO, PM and toxic compound emissions from mobile sources. Such increased penetration of NGVs will provide direct emissions reductions of NO_x, VOC, CO, PM and air toxic compounds throughout the Basin.

Proposed Project: Demonstrate Natural Gas Manufacturing and Distribution Technologies Including Renewables

Expected SCAQMD Cost: \$1,000,000

Expected Total Cost: \$10,000,000

Description of Technology and Application:

Lack of sufficient statewide LNG production results in increased fuel costs and supply constraints. The cost of transporting LNG from out-of-state production facilities increases the fuel cost from 15 to 20 cents per gallon of LNG and subjects users to the reliability of a single supply source. High capital costs prevent construction of local, large-scale liquefaction facilities. Small-scale, distributed LNG liquefaction systems may provide 25 percent lower capital costs than conventional technology per gallon of LNG produced. Because these smaller plants can be sited near fleet customers, costs for transporting the LNG to end-users are much lower than those for remote larger plants. Beyond these cost reductions, the smaller plants offer key benefits of much smaller initial capital investment and wider network of supply than the larger plant model.

The project category will also consider the development and demonstration of technologies for the production of Renewable Natural Gas (RNG) from various feed stocks including landfill gas, green waste, and anaerobic digester gases.

The main objectives of this project are to investigate, develop and demonstrate:

- commercially viable methods for converting renewable feed stocks into CNG or LNG (e.g., production from biomass);
- economic small-scale natural gas liquefaction technologies;
- utilization of various gaseous feed stocks locally available;
- commercialize incentives for fleets to site, install and use LNG and L/CNG refueling facilities; and
- strategic placement of LNG storage capacity sufficient to provide supply to users in the event of a production outage.

Potential Air Quality Benefits:

The SCAQMD relies on a significant increase in the penetration of zero- and low-emission vehicles in the South Coast Basin to attain federal clean air standards by 2023 and 2032. This project would help develop a number of small-scale liquefaction technologies that can reduce LNG costs to be competitive with diesel fuel. Such advances are expected to lead to greater infrastructure development. Additionally, this project could support the state's goal of redirecting landfill waste for local fuel production.

Fuel/Emissions Studies

Proposed Project: Conduct In-Use Emissions Studies for Advanced Technology Vehicle Demonstrations

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$800,000

Description of Technology and Application:

Hybrid electric, hybrid hydraulic, plug-in electric hybrid and pure EVs will all play role in the future of transportation. Each of these transportation technologies has attributes that could provide unique benefits to different transportation sectors. Identifying the optimal placement of each transportation technology will provide the co-benefits of maximizing the environmental benefit and return on investment for the operator.

The environmental benefit for each technology class is duty-cycle and application specific. Identifying the attributes of a specific application or drive cycle that would take best advantage of a specific transportation technology would speed the adoption and make optimal use of financial resources in the demonstration and deployment of a technology. The adoption rates would be accelerated since the intelligent deployment of a certain technology would ensure that a high percentage of the demonstration vehicles showed positive results, which would spur the adoption of this technology in similar applications, as opposed to negative results derailing the further development or deployment of a certain technology.

The proposed project would review and potentially coordinate application specific drive cycles to for specific applications. The potential emissions reductions and fossil fuel displacement for each technology in a specific application would be quantified on a full-cycle basis. This information could be used to develop a theoretical database of potential environmental benefits of different transportation technologies when deployed in specific applications.

Another proposed project would be the characterization of intermediate volatility organic compound (IVOC) emissions which is critical in assessing ozone and SOA precursor production rates. Diesel vehicle exhaust and unburned diesel fuel are major sources of and contribute to the formation of urban ozone and secondary organic aerosol (SOA), which is an important component of PM_{2.5}.

Finally, while early developments in autonomous and vehicle-to-vehicle controls are focused on light-duty passenger vehicles, the early application of this technology to heavy-duty, drayage and container transport technologies is more likely. The impact on efficiency and emissions could be substantial. A project to examine this technology to assess its effect on goods movement and emissions associated with goods movement could be beneficial at this time.

Potential Air Quality Benefits:

The development of an emissions reduction database, for various application specific transportation technologies, would assist in the targeted deployment of new transportation technologies. This database coupled with application specific vehicle miles traveled and population data would assist in intelligently deploying advanced technology vehicles to attain the maximum environmental benefit. These two data streams would allow vehicle technologies to be matched to an application that is best suited to the specific technology, as well as selecting applications that are substantial enough to provide a significant environmental benefit. The demonstration of a quantifiable reduction in operating cost through the intelligent deployment of vehicles will also accelerate the commercial adoption of the various technologies. The accelerated adoption of lower emitting vehicles will further assist in attaining SCAQMD's air quality goals.

Proposed Project: Conduct Emissions Studies on Biofuels, Alternative Fuels and Other Environmental Impacts

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

The use of biofuels can be an important strategy to reduce petroleum dependency, air pollution and greenhouse gas emissions. Biofuels are in fact receiving increased attention due to national support and state activities resulting from SB 32, AB 1007 and the Low-Carbon Fuel Standard. With an anticipated increase in biofuel use, it is the objective of this project to further analyze these fuels to better understand their benefits and impacts not only on greenhouse gases but also on air pollution and associated health effects.

In various diesel engine studies, replacement of petroleum diesel fuel with biodiesel fuel has demonstrated reduced PM, CO and air toxics emissions. Biodiesel also has the potential to reduce greenhouse gas emissions because it can be made from renewable feedstocks, such as soy and canola. However, certain blends of biodiesel have a tendency to increase NO_x emissions for certain engines and duty cycles, which exacerbates the ozone and PM_{2.5} challenges faced in the Basin. In addition, despite recent advancements in toxicological research in the air pollution field, the relationship between biodiesel particle composition and associated health effects is still not completely understood.

Ethanol is another biofuel that is gaining increased national media and state regulatory attention. CARB's reformulated gasoline regulation to further increase the ethanol content to 10% as a means to increase the amount of renewable fuels in the state. It is projected that the state's ethanol use will increase from 900 million gallons in 2007 to 1.5 billion gallons by 2012 as a result. As in the case of biodiesel, ethanol has demonstrated in various emission studies to reduce PM, CO and toxic emissions; however, the relationship between particle composition and associated health effects from the combustion of ethanol is not well understood either.

CARB recently proposed a regulation on the commercialization of alternative diesel fuels, including biodiesel and renewable diesel, while noting that biodiesel in older heavy-duty vehicles can increase NO_x and the need for emerging alternative diesel fuels to have clear ground rules for commercialization. The impact of natural gas fuel composition on emissions from heavy-duty trucks and transit buses is also being studied.

In order to address these concerns on potential health effects associated with biofuels, namely biodiesel and ethanol blends, this project will investigate the physical and chemical composition and associated health effects of tailpipe PM emissions from light- to heavy-duty vehicles burning biofuels in order to ensure public health is not adversely impacted by broader use of these fuels. This project also supports future studies to identify mitigation measures to reduce NO_x emissions for biofuels. Additionally, a study of emissions from well-to-wheel for the extraction and use of shale gas might be considered.

Lastly, in an effort to evaluate the contribution of meteorological factors to high ozone and PM_{2.5} episodes occurring in the South Coast air Basin, mainly as a result of higher summer time temperatures and increased air stagnation following the drought years, a comprehensive study is necessary to evaluate the trends of meteorological factors that may adversely impact air quality in the Basin. The study will assist staff to better understand the potential impact of recent weather trends on criteria pollutant emissions and potentially develop more effective strategies for improving air quality in the future.

Potential Air Quality Benefits:

If renewable diesel, biodiesel and biodiesel blends can be demonstrated to reduce air pollutant emissions with the ability to mitigate any NO_x impact, this technology will become a viable strategy to

assist in meeting air pollutant standards as well as the goals of SB 32 and the Low-Carbon Fuel Standard. The use of biodiesel is an important effort for a sustainable energy future. Emission studies are critical to understanding the emission benefits and any tradeoffs (NO_x impact) that may result from using this alternative fuel. With reliable information on the emissions from using biodiesel and biodiesel blends, the SCAQMD can take actions to ensure the use of biodiesel will obtain air pollutant reductions without creating additional NO_x emissions that may exacerbate the Basin's ozone problem. Additionally, understanding meteorological factors on criteria pollutant emissions may help identify ways to mitigate them, possibly through targeted advanced transportation deployment.

Proposed Project: Identify and Demonstrate In-Use Fleet Emissions Reduction Technologies and Opportunities

Expected SCAQMD Cost: \$250,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

New technologies, such as alternative fueled heavy-duty engines, are extremely effective at reducing emissions because they are designed to meet the most stringent emissions standards while maintaining vehicle performance. In addition, many new vehicles are now equipped with telematics enabling motorists to obtain transportation information such as road conditions to avoid excessive idling and track information about the vehicle maintenance needs, repair history, tire pressure and fuel economy. Telematics have been shown to reduce emissions from new vehicles. Unfortunately, the in-use fleet lacks telematic systems--particularly heavy-duty engines in trucks, buses, construction equipment, locomotives, marine vessels and cargo handling equipment--have fairly long working lifetimes (up to 20 years due to remanufacturing in some cases). Even light-duty vehicles routinely have lifetimes exceeding 200,000 miles and 10 years. And it is the in-use fleet, especially the oldest vehicles, which are responsible for the majority of emissions.

This project category is to investigate near-term emissions control technologies that can be cost-effectively applied to reduce emissions from the in-use fleet. The first part of the project is to identify and conduct proof-of-concept demonstrations of feasible candidate technologies, such as:

- remote sensing for heavy-duty vehicles;
- annual testing for high mileage vehicles (>100,000 miles);
- replace or upgrade emissions control systems at 100,000 mile intervals;
- on-board emission diagnostics with remote notification;
- low-cost test equipment for monitoring and identifying high emitters;
- test cycle development for different class vehicles (e.g. four wheel drive SUVs);
- electrical auxiliary power unit replacements;
- development, deployment and demonstration of smart vehicle telematic systems; and
- low NOx sensor development

Potential Air Quality Benefits:

Many of the technologies identified can be applied to light and heavy-duty vehicles to identify and subsequently remedy high-emitting vehicles in the current fleet inventory. Estimates suggest that 5 percent of existing fleets account for up to 80 percent of the emissions. Identification of higher emitting vehicles would assist with demand-side strategies, where higher emitting vehicles have correspondingly higher registration charges.

Stationary Clean Fuel Technologies

Proposed Project: Develop and Demonstrate Reliable, Advanced Emission Control Technologies, and Low-Emission Monitoring Systems and Test Methods

Expected SCAQMD Cost: \$100,000

Expected Total Cost: \$250,000

Description of Technology and Application:

Currently, the inability of air/fuel ratio control (AFRC) systems to keep rich-burn engines in compliance contributes significantly to air pollution in the basin. Reliable, low-cost emission monitoring systems are needed for small-to-intermediate size combustion devices, including stationary engines, boilers, heaters, furnaces and ovens that are not large enough to justify a continuous emission monitoring system (CEMS). This class of combustion device is often permitted on the basis of a single demonstration or periodic demonstrations of NO_x and CO emissions meeting SCAQMD rule requirements or a RECLAIM concentration limit. However, SCAQMD-unannounced tests on engines and boilers have found that in many cases NO_x and/or CO levels have increased significantly above levels that have been initially or periodically demonstrated due to equipment malfunction and/or inadequate operator attention. It is suspected that the same may be true of heaters, furnaces and ovens.

A demonstration project funded in part by the SCAQMD consisted of retrofitting a biogas engine with a digester gas clean up system and catalytic oxidizer at the exhaust followed by SCR which resulted in significant reductions of NO_x, VOC and CO. Based on the successful deployment of this project, further emission reductions may be achieved by other biogas combustion sources such as gas turbines and boilers by the continued development of specialized low cost biogas clean up systems that will allow for the use of catalytic after control systems.

Demonstrations of newer technologies in recent years could result in a commercially viable alternative to CEMS that is both reliable and feasible in terms of lower costs. For example, manufacturers of flue gas analyzers have, in recent years, developed low-cost multi-gas analyzers suitable for portable or stack-mounted use. Some preliminary testing of a new type of AFRC, which uses a different type of O₂ sensor known as a wide-band O₂ sensor, is another alternative that can be analyzed. Another technical approach might be to deploy technology utilizing the O₂ signature of a post-catalyst O₂ sensor and additional control concepts being developed by manufacturers. Since an underlying problem has been that engine, catalyst and AFRC manufacturers have developed systems independently, a system being co-developed to perform continuous diagnostics to assist operators in keeping rich-burn engines in compliance is possibly another alternative for demonstration.

Potential Air Quality Benefits:

Stationary engines, boilers, heaters, furnaces and ovens account for approximately 11 percent of total NO_x emissions and about 6 percent of total CO emissions. There has been a long-standing compliance problem with rich-burn IC engines in the basin and evidence indicates that many of these devices are operating with NO_x and/or CO emissions above levels required in their permits. Projects could potentially reduce a significant class of NO_x and CO emissions that are in excess of the assumptions in the AQMP and further enhance SCAQMD's ability to enforce full-time compliance.

Proposed Project: Develop and Demonstrate Clean Stationary Technologies

Expected SCAQMD Cost: \$250,000

Expected Total Cost: \$750,000

Description of Technology and Application:

Stationary sources, including VOC sources such as large printing facilities and furniture manufacturers, have become cleaner and cleaner due to the regulatory requirements for low emissions and the advancements in technology to meet those requirements. Best Available Control Technology (BACT) regulations, however, are only required for new, modified, or relocated sources that may result in an emissions increase of a non-attainment air contaminant, any ozone depleting compound or ammonia. This project category is to develop and demonstrate new technologies that can provide emissions reductions in new installations or as retrofit modifications. Possible technology examples include:

- low NOx technologies (burners, thermal and ICEs);
- low-Btu gas technologies (e.g., digester, landfill, or dairy gases);
- alternative fuels and hydrogen blends;
- alternative diesel fuels (emulsified, gas-to-liquids, biodiesel with aftertreatment);
- low emission refinery flares;
- catalytic combustion;
- cost-effective fuel cell and fuel cell hybrid distributed generation;
- fumes-to-fuel technology to replace thermal oxidizers and capture VOC emissions for electricity generation while ensuring no emission of air toxics; and
- boiler optimization design and strategies to improve efficiencies.

Depending on the technology, a proof-of-concept project, demonstration, or pre-commercial deployment would be considered to garner further information on the technology. Issues to investigate include viability (reliability, maintainability and durability) of the technology, cost-effectiveness and operator ease-of-use in order to assess commercialization.

Potential Air Quality Benefits:

The SCAQMD has a substantial number of older, small, stationary source technologies within its jurisdiction. Since these devices are not subject to continuous emissions monitoring system requirements, evidence suggests that these devices may not be operating at their permitted NOx, CO, hydrocarbon and PM emissions levels. Replacing these devices with cleaner and more reliable technologies or technology/fuel combinations can have dramatic reductions in all of these criteria pollutants. VOC emission reductions may also be achieved at larger stationary VOC sources to achieve the new federal ozone and PM2.5 standards.

Proposed Project: Develop and Demonstrate Renewables-Based Energy Generation Alternatives

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

The objective of this proposed project is to support the development and demonstration of clean energy, renewable alternatives in stationary applications. The technologies to be considered include thermal, photovoltaic and other solar energy technologies; wind energy systems; energy storage potentially including vehicle to grid or vehicle to building functionalities for alternative energy storage; biomass conversion; and other renewable energy and recycling technologies. Innovative solar technologies, such as solar thermal air conditioning and photovoltaic-integrated roof shingles, are of particular interest. Also, in the agricultural sections of the Basin, wind technologies could potentially be applied to drive large electric motor-driven pumps to replace highly polluting diesel-fired pumps. Besides renewable technologies, electrolyzer technology could be used to generate hydrogen, a clean fuel. Hydrogen, when used in regular engines, can potentially reduce tail-pipe emissions, while in fuel cells the emissions are reduced to zero.

The project is expected to result in pilot-scale production demonstrations, scale-up process design and cost analysis, overall environmental impact analysis and projections for ultimate clean fuel costs and availability. This project is expected to result in several projects addressing technological advancements in these technologies that may improve performance and efficiency, potentially reduce capital and operating costs, enhance the quality of natural gas generated from renewable sources for injection into natural gas pipelines, improve reliability and user friendliness and identify markets that could expedite the implementation of successful technologies.

Potential Air Quality Benefits:

The 2016 AQMP identifies the development and ultimately the implementation of non-polluting power generation. To gain the maximum air quality benefit, polluting fossil fuel-fired electric power generation needs to be replaced with clean renewable energy resources or other advanced zero emission technologies, such as hydrogen fuel cells, particularly in a distributed generation context.

The proposed project is expected to accelerate the implementation of advanced zero emission energy sources. Expected benefits include directly reducing the emissions by the displacement of fossil generation; proof-of-concept and potential viability for such zero emission power generation systems; increased exposure and user acceptance of the new technology; reduced fossil fuel usage; and the potential for increased use, once successfully demonstrated, with resulting emission benefits, through expedited implementation. These technologies would also have a substantial influence in reducing global warming emissions.

Emissions Control Technologies

Proposed Project: Develop and Demonstrate Advanced Aftertreatment Technologies

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

There are a number of aftertreatment technologies which have shown substantial emissions reductions in diesel engines. These technologies include diesel particulate filters (DPFs), oxidation catalysts, selective catalytic reduction (SCR) systems and NO_x adsorbers. This project category is to develop and demonstrate these aftertreatment technologies alone or in tandem with an alternative fuel to produce the lowest possible PM, ultrafine particles, nanoparticles, NO_x, CO, carbonyl and hydrocarbon emissions in retrofit and new applications. With the increasing focus on zero and near-zero emissions goods movement technologies, this category should examine idle reduction concepts and technologies that can be employed at ports and airports.

Possible projects include advancing the technologies for on-road retrofit applications, such as heavy-duty line-haul and other large displacement diesel engines, street sweepers, waste haulers and transit buses. Applications for non-road may include construction equipment, yard hostlers, gantry cranes, locomotives, marine vessels, ground support equipment and other similar industrial applications. Potential fuels to be considered in tandem are low-sulfur diesel, emulsified diesel, biodiesel, gas-to-liquids, hydrogen and natural gas. This project category will also explore the performance, economic feasibility, viability (reliability, maintainability and durability) and ease-of-use to ensure a pathway to commercialization.

Potential Air Quality Benefits:

The transfer of mature emission control technologies, such as DPFs and oxidation catalysts, to the off-road sector is a potentially low-risk endeavor that can have immediate emissions reductions. Further development and demonstration of other technologies, such as SCR and NO_x adsorbers, could also have NO_x reductions of up to 90%.

Proposed Project: Demonstrate On-Road Technologies in Off-Road and Retrofit Applications

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$800,000

Description of Technology and Application:

Heavy-duty on-road engines have demonstrated progress in meeting increasingly stringent Federal and state requirements. New heavy-duty engines have progressed from 2 g/bhp-hr NO_x in 2004 to 0.2 g/bhp-hr NO_x in 2010, which is an order of magnitude decrease in just six years. Off-road engines, however, have considerably higher emissions limits depending on the engine size. For example, Tier-3 standards for heavy-duty engines require only 3 g/bhp-hr NO_x. There are apparent opportunities to implement cleaner on-road technologies in off-road applications. There is also an opportunity to replace existing engines in both on-road and off-road applications with the cleanest available technology. Current regulations require a repower (engine exchange) to only meet the same emissions standards as the engine being retired. Unfortunately, this does not take advantage of recently developed clean technologies.

Exhaust gas cleanup strategies, such as SCR, electrostatic precipitators, baghouses and scrubbers, have been used successfully for many years on stationary sources. The exhaust from the combustion source is routed to the cleaning technology, which typically requires a large footprint for implementation. This large footprint has made installation of such technologies on some mobile sources prohibitive. However, in cases where the mobile source is required to idle for long periods of time, it may be more effective to route the emissions from the mobile source to a stationary device to clean the exhaust stream.

Projects in this category will include utilizing proven clean technologies in novel applications, such as:

- demonstrating certified LNG and CNG on-road engines in off-road applications including yard hostlers, switcher locomotives, gantry cranes, waste haulers and construction equipment;
- implementing lower emission engines in repower applications for both on-road and off-road applications; and
- applying stationary best available control technologies, such as SCR, scrubbers, baghouses and electrostatic precipitators, to appropriate on- and off-road applications, such as idling locomotives, marine vessels at dock and heavy-duty line-haul trucks at weigh stations.

Potential Air Quality Benefits:

The transfer of mature emission control technologies, such as certified engines and SCR, to the non-road and retrofit sectors offers high potential for immediate emissions reductions. Further development and demonstration of these technologies will assist in the regulatory efforts which could require such technologies and retrofits.

Health Impacts Studies

Proposed Project: Evaluate Ultrafine Particle Health Effects

Expected SCAQMD Cost: \$100,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

Reducing diesel exhaust from vehicles has become a high priority in the South Coast Air Basin since CARB identified the particulate phase of diesel exhaust as a surrogate for all of the toxic air contaminant emitted from diesel exhaust. Additionally, health studies indicate that the ultrafine portion of particulate matter may be more toxic on a per-mass basis than other fractions. Several technologies have been introduced and others are under development to reduce diesel emissions. These include among others low-sulfur diesel fuel, particulate matter traps and heavy-duty engines operating on alternative fuel such as CNG and LNG. Recent studies have shown that control technologies applied to mobile sources have been effective in reducing the mass of particulates emitted. However, there is also evidence that the number of ultrafine particles on and near roadways has increased, even while the mass of particulates has decreased. To have a better understanding of changes in ultrafine particulate emissions from the application of the new technologies and the health effects of these emissions, an evaluation and comparison of ultrafine particulate matter and the potential impacts on community exposures are necessary.

In this project, measurements and chemical composition of ultrafine particulates will be done, as well as studies conducted to characterize their toxicity. The composition of the particulates can further be used to determine the contribution from specific combustion sources. Additionally, engine or chassis dynamometer testing may be conducted on heavy-duty vehicles to measure, evaluate and compare ultrafine particulate matter, PAH and other relevant toxic emissions from different types of fuels such as CNG, low-sulfur diesel, biofuels and others. This project needs to be closely coordinated with the development of technologies for alternative fuels, aftertreatment and new engines in order to determine the health benefits of such technologies.

Furthermore, gasoline direct injection (GDI) vehicles are known for higher efficiency and power output but the PM emissions profile is not well understood especially on secondary organic aerosol (SOA) formation potential. As manufacturers introduce more GDI models in the market to meet new fuel economy standards, it is important to understand the SOA potential from these vehicles as it could lead to further impact on the ambient PM concentration in our region. Consequently, in 2015 a project was initiated with UCR/CE-CERT to investigate the physical and chemical composition of aerosols from GDI vehicles using a mobile environmental chamber that has been designed and constructed to characterize secondary emissions. Based on this initial results indicating an increase in particle numbers, follow-up in-use studies to assess PM emissions including with and without particle filters will be beneficial.

Potential Air Quality Benefits:

The AQMP for the South Coast Basin relies on significant penetration of low emission vehicles to attain federal clean air standards. Reduction of particulate emissions from the combustion of diesel and other fuels is a major priority in achieving these standards. This project would help to better understand the nature and amount of ultrafine particulates generated by different types of fuels and advanced control technologies as well as provide information on potential health effects of ultrafine particles. Such an understanding is important to assess the emission reduction potentials and health benefits of these technologies. In turn, this will have a direct effect on the policy and regulatory actions for commercial implementation of alternative fuel vehicles in the Basin.

Proposed Project: Conduct Monitoring to Assess Environmental Impacts

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$500,000

Description of Technology and Application:

Facilities, buildings, structures, or highways which attract mobile sources of pollution are considered “indirect” sources. Ambient and saturation air monitoring near sources such as ports, airports, rail yards, distribution centers and freeways is important to identify the emissions exposure to the surrounding communities and provide the data to then conduct the health impacts due to these sources. This project category would identify areas of interest and conduct ambient air monitoring, conduct emissions monitoring, analyze the data and assess the potential health impacts from mobile sources. The projects would need to be at least one year in duration in order to properly assess the air quality impacts in the area.

Potential Air Quality Benefits:

The proposed project will assist in the evaluation of adverse public health impacts associated with mobile sources. The information will be useful in (a) determining whether indirect sources have a relatively higher impact on residents living in close proximity; and (b) providing guidance to develop some area-specific control strategies in the future should it be necessary.

Proposed Project: Assess Sources and Health Impacts of Toxic Air Contaminants

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$300,000

Description of Technology and Application:

Previous studies of ambient levels of toxic air contaminants, such as the MATES series of studies, have found that diesel exhaust is the major contributor to health risk from air toxics. Analyses of diesel particulate matter in ambient samples have been based on measurements of elemental carbon. While the bulk of particulate elemental carbon in the South Coast Air Basin is thought to be from combustion of diesel fuels, it is not a unique tracer for diesel exhaust.

The MATES III study collected particulate samples at ten locations in the South Coast Air Basin. Analysis of particulate bound organic compounds was utilized as tracers to estimate levels of ambient diesel particulate matter as well as estimate levels of particulate matter from other major sources. Other major sources that were taken into consideration include automobile exhaust, meat charbroiling, road dust, wood smoke and fuel oil combustion. Analyzing for organic compounds and metals in conjunction with elemental carbon upon collected particulate samples was used to determine contributing sources.

MATES IV, completed in 2015, included an air monitoring program, an updated emissions inventory of toxic air contaminants and a to air toxics, MATES IV also measured ultrafine particle concentrations and black carbon at the monitoring sites as well as near sources such as airports, freeways, rail yards, busy intersections and warehouse operations.

MATES V was launched in 2017 to update the emissions inventory of toxic air contaminants and modeling to characterize risks, including measurements and analysis of ultrafine particle concentrations typically emitted or converted from vehicle exhaust. Based on preliminary results of MATES V, further assessment may need to be performed to assess secondary organic aerosols; including installation of sensors and additional monitoring activities.

This project category would include other related factors, such as toxicity assessment based on age, source (heavy-duty, light-duty engines) and composition (semi-volatile or non-volatile fractions) to better understand the health effects and potential community exposures. Additionally, early identification of new health issues could be of considerable value and could be undertaken in this project category.

Potential Air Quality Benefits:

Results of this work will provide a more robust, scientifically sound estimate of ambient levels of diesel particulate matter as well as levels of particulate matter from other significant combustion sources, including gasoline and diesel generated VOCs. This will allow a better estimation of potential exposures to and health effects from toxic air contaminants from diesel exhaust in the South Coast Air Basin. This information in turn can be used to determine the health benefits of promoting clean fuel technologies.

Technology Assessment and Transfer/Outreach

Proposed Project: Assess and Support Advanced Technologies and Disseminate Information

Expected SCAQMD Cost: \$400,000

Expected Total Cost: \$800,000

Description of Project:

This project supports the assessment of clean fuels and advanced technologies, their progress towards commercialization and the dissemination of information on demonstrated technologies. The objective of this project is to expedite the transfer of technology developed as a result of Technology Advancement Office projects to the public domain, industry, regulatory agencies and the scientific community. This project is a fundamental element in the SCAQMD's outreach efforts to expedite the implementation of low emission and clean fuels technologies and to coordinate these activities with other organizations.

This project may include the following:

- technical review and assessment of technologies, projects and proposals;
- support for alternative fuel refueling and infrastructure;
- advanced technology curriculum development, mentoring and outreach to local schools;
- emissions studies and assessments of zero emission alternatives;
- preparation of reports, presentations at conferences, improved public relations and public communications of successful demonstrations of clean technologies;
- participation in and coordination of workshops and various meetings;
- support for training programs related to fleet operation, maintenance and refueling of alternative fuel vehicles;
- publication of technical papers, reports and bulletins; and
- production and dissemination of information, including web sites.

These objectives will be achieved by consulting with industry, scientific, health, medical and regulatory experts and co-sponsoring related conferences and organizations, resulting in multiple contracts. In addition, an ongoing outreach campaign will be conducted to encourage decision-makers to voluntarily switch to alternatively fueled vehicles and train operators to purchase, operate and maintain these vehicles and associated infrastructure.

Potential Air Quality Benefits:

SCAQMD adopted fleet regulations requiring public and private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. Expected benefits of highlighting success stories in the use of advanced alternatively fueled vehicles could potentially expedite the acceptance and commercialization of advanced technologies by operators seeking to comply with the provisions of the recently adopted SCAQMD fleet rules. The resulting future emissions benefits will contribute to the goals of the AQMP.

Proposed Project: Support Implementation of Various Clean Fuels Vehicle Incentive Programs

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$400,000

Description of Project:

This project supports the implementation of zero emission vehicle incentive programs, the Carl Moyer incentives program and the school bus incentives program. Implementation support includes application approval, grant allocation, documentation to the CARB, verification of vehicle registration and other support as needed. Information dissemination is critical to successful implementation of a coordinated and comprehensive package of incentives. Outreach will be directed to vehicle dealers, individuals and fleets.

Potential Air Quality Benefits:

As described earlier, the SCAQMD will provide matching funds to implement several key incentives programs to reduce diesel emissions in the Basin. Furthermore, the SCAQMD recently adopted fleet regulations requiring public and private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. Expected benefits of highlighting zero emission vehicle incentives could potentially expedite the acceptance and commercialization of advanced technologies by operators seeking to comply with the provisions of the recently adopted SCAQMD fleet rules. The resulting future emissions benefits will contribute to the goals of the AQMP. The school bus program and the Carl Moyer incentives program will also reduce large amounts of NO_x and PM emissions in the basin in addition to reducing toxic air contaminants.

Appendix A

SCAQMD Advisory Groups

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Technology Advancement Advisory Group

Dr. Matt Miyasato, Chair SCAQMD

Don Anair Non-Governmental Organization

*Chris Cannon Port of Los Angeles

*Steve Cliff..... California Air Resources Board

Dr. John Froines..... Professor Emeritus
University of California, Los Angeles

*Yuri Freedman Southern California Gas Company

*Jodean Giese Los Angeles Department of Water and Power

*Phil Heirigs Western States Petroleum Association

Randall Lewis Lewis Group of Companies

Tim Olson California Energy Commission

David Pettit Natural Resources Defense Council

Dr. Sunita Satyapal Department of Energy

*Heather Tomley Port of Long Beach

Dawn Wilson Southern California Edison

*Newly appointed members

SB 98 Clean Fuels Advisory Group

Dr. Matt Miyasato, Chair	SCAQMD
Robert Bienenfeld	American Honda Motor Company Inc.
*Dr. John Budroe	California Environmental Protection Agency, Office of Environmental Health Hazard Assessment
Dr. Stephen Charlton	Independent Consultant in Combustion Technology
*Dr. Mark Duvall	Electric Power Research Institute
Dr. Mridul Gautam	West Virginia University, Adjunct Professor, & University of Nevada-Reno
Dr. Wayne Miller	University of California, Riverside, College of Engineering, Center for Environmental Research and Technology
<i>Vacant</i>	Academic Community
Dr. Scott Samuelsen	University of California, Irvine, Combustion Laboratory/National Fuel Cell Research Center
Dr. Robert Sawyer	Sawyer Associates
Andreas Truckenbrodt	Independent Consultant in Fuel Cell Technologies
Kevin Walkowicz	National Renewable Energy Laboratory
Michael Walsh	Independent Consultant in Motor Vehicle Pollution Control

*Newly appointed members

Appendix B

Open Clean Fuels Contracts as of January 1, 2019

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Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
Hydrogen and Mobile Fuel Cell Technologies and Infrastructure						
11555	University of California Los Angeles	Construct Hydrogen Fueling Infrastructure	12/07/12	12/31/19	400,000	2,589,990
15150	Air Products and Chemicals Inc.	Install and Upgrade Eight Hydrogen Fueling Stations Throughout SCAB (including SCAQMD's Diamond Bar Hydrogen Station)	10/10/14	04/09/19	1,000,000	17,335,439
15366	EPC LLC	Operate and Maintain Publicly Accessible Hydrogen Fueling Station at SCAQMD's Headquarters	10/10/14	04/09/19	0	0
15609	ITM Power, Inc.	Installation of Riverside Renewable Hydrogen Fueling Station	10/06/15	10/05/19	200,000	2,325,000
15611	Ontario CNG Station, Inc.	Installation of Ontario Renewable Hydrogen Fueling Station	07/10/15	07/09/20	200,000	2,325,000
15618	FirstElement Fuel, Inc.	Installation of Eight Hydrogen Stations in Various Cities (two renewable, six delivered)	02/05/16	02/04/21	1,000,000	16,442,000
15619	H2 Frontier Inc.	Installation of Chino Renewable Hydrogen Station	12/04/15	12/03/20	200,000	4,558,274
15635	Center for Transportation and Environment	ZECT II: Develop and Demonstrate One Class 8 Fuel Cell Range-Extended Electric Drayage Truck	04/27/16	10/26/20	821,198	7,109,384
16025	Center for Transportation and Environment	Develop and Demonstrate Fuel Cell Hybrid Electric Medium-Duty Trucks	02/05/16	08/04/20	980,000	7,014,000
16251	H2 Frontier, Inc.	Develop and Demonstrate Commercial Mobile Hydrogen Fueller	05/06/16	05/05/21	200,000	1,665,654
17059	Calstart Inc.	Develop and Demonstrate Fuel Cell Extended-Range Powertrain for Parcel Delivery Trucks	10/27/16	05/31/19	589,750	1,574,250
17312	Hydrogenics USA Inc.	ZECT II: Develop Fuel Cell Range-Extended Drayage Truck	11/20/17	05/19/21	125,995	2,433,553
17316	Center for Transportation and the Environment	Develop and Demonstrate Ten Zero Emission Fuel Cell Electric Buses	06/09/17	04/30/20	1,000,000	45,328,859
17317	American Honda Motor Company, Inc.	Three Year Lease of One Honda 2017 Clarity Fuel Cell Vehicle for TAO's Fleet Demonstration Program	03/22/17	03/21/20	17,304	17,304
17343	American Honda Motor Company, Inc.	Three Year Lease of One Honda 2017 Clarity Fuel Cell Vehicle for TAO's Fleet Demonstration Program	02/21/17	02/20/20	17,328	17,328
17385	American Honda Motor Company, Inc.	Three Year Lease of One Honda 2017 Clarity Fuel Cell Vehicle for TAO's Fleet Demonstration Program	05/17/17	05/16/20	17,304	17,304
18150	California Department of Food and Agriculture, Division of Measurement Standards	Conduct Hydrogen Station Site Evaluations for Hydrogen Station Equipment Performance (HySTEP) Project	06/28/18	02/27/20	100,000	805,000

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Hydrogen and Mobile Fuel Cell Technologies and Infrastructure (cont'd)

18158	Alliance for Sustainable Energy, LLC (on behalf of National Renewable Energy Laboratory)	California Hydrogen Infrastructure Research Consortium H2 @ Scale Initiative	08/31/18	03/30/20	100,000	760,000
19172	Longo Toyota	Three-Year Lease of Two 2018 Toyota Mirai Fuel Cell Vehicles	10/28/18	10/27/21	35,108	35,108
19213	Frontier Energy Inc.	Participate in California Fuel Cell Partnership for CY 2018 and Provide Support for Regional Coordinator	01/01/18	07/01/19	245,000	1,253,491

Electric/Hybrid Technologies and Infrastructure

08063	Quantum Fuel Systems LLC	Develop & Demonstrate 20 Plug-In Hybrid Electric Vehicles	01/22/08	01/31/19	2,165,613	2,899,057
13058	Capstone Turbine Corporation	Develop Microturbine Series Hybrid System for Class 7 Heavy-Duty Vehicle Applications	08/12/13	12/31/19	360,000	1,210,000
13433	U.S. Hybrid Corporation	Develop and Demonstrate Two Class 8 Zero-Emission Electric Trucks	06/26/13	12/31/19	75,000	150,000
14052	Altec Capital Services, LLC	Lease of Two Plug-In Hybrid Electric Vehicles	01/02/15	01/01/20	61,302	61,302
14184	Clean Fuel Connection Inc.	DC Fast Charging Network Provider	04/04/14	06/30/20	920,000	1,220,000
14222	Odyne Systems, LLC	Develop and Demonstrate Plug-In Hybrid Electric Retrofit System for Class 6 to 78 Trucks	04/24/14	03/31/19	389,000	2,226,571
14256	National Strategies LLC	Develop and Demonstrate Vehicle-2-Grid Technology	09/05/14	01/31/19	250,000	3,377,689
16022	Gas Technology Institute	ZECT II: Develop and Demonstrate One Class 8 CNG Hybrid Electric Drayage Truck	12/04/15	06/30/20	1,578,802	5,627,319
16046	Transportation Power, Inc.	ZECT: Develop and Demonstrate Two Class 8 CNG Plug-In Hybrid Electric Drayage Trucks	12/04/15	12/31/19	195,326	2,103,446
16081	Broadband TelCom Power, Inc.	Provide EV Hardware and Control System at SCAQMD Headquarters including Installation Support, Warranty and Networking	04/27/16	04/26/22	367,425	367,425
16200	California State University Los Angeles	Cost-Share Regional Universities for U.S. DOE EcoCAR 3 Competition	04/14/16	04/15/20	100,000	300,000
16227	Selman Chevrolet Company	Lease One 2016 Chevrolet Volt Extended-Range Electric Vehicle for Three Years	02/01/16	01/31/19	15,677	15,677
17029	University of California Irvine	Demonstrate and Evaluate Plug-In Smart Charging at Multiple Electric Grid Scales	06/29/17	06/28/20	250,000	750,000
17065	Clean Fuel Connection, Inc.	EV Infrastructure Installer	12/02/16	12/31/21	805,219	805,219
17105	BYD Motors Inc.	Develop and Demonstrate Up to 25 Class 8 Battery Electric Drayage Trucks	04/14/17	10/13/23	794,436	8,942,400

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Electric/Hybrid Technologies and Infrastructure (cont'd)

17207	Peterbilt Motors	Develop and Demonstrate Up to 12 Class 8 Battery Electric Drayage Trucks	04/07/17	10/06/23	642,436	11,006,340
17225	Volvo Technology of America LLC	Develop and Demonstrate Up to Two Class 8 Battery Electric Drayage Trucks	06/09/17	06/08/20	1,741,184	9,458,446
17244	Kenworth Truck Company	Develop and Demonstrate Up to Two Class 8 Battery Electric Drayage Trucks	09/08/17	01/08/20	2,823,475	9,743,739
17353	Odyne Systems, LLC	Develop and Demonstrate Medium-Heavy-Duty (Class 5-7) Plug-In Hybrid Electric Vehicles for Work Truck Applications	06/09/17	09/08/20	900,000	6,955,281
18072	Electric Power Research Institute	Study Electrification Options of Energy Services for EJ Communities and Non-Attainment Areas	06/08/18	06/07/19	150,000	1,558,657
18075	Selman Chevrolet Company	Lease Two 2017 Chevrolet Bolt All-Electric Vehicles for Three Years for TAO's Fleet Demonstration Program	08/18/17	08/17/20	26,824	26,824
18129	Electric Power Research Institute	Versatile Plug-In Auxiliary Power System Demonstration	06/28/18	06/27/20	125,000	273,000
18151	Rail Propulsion System	Develop and Demonstrate Battery Electric Switcher Locomotive	04/05/18	12/30/19	210,000	925,000
18232	Hyster-Yale Group Inc.	Electric Top-Pick Development, Integration and Demonstration	09/14/18	09/13/21	2,931,805	3,678,008
18277	Velocity Vehicle Group DBA Los Angeles Truck Centers LLC	Southern California Advanced Sustainable Freight Demonstration	09/07/18	03/06/22	3,568,300	4,198,000
18280	Honda of Pasadena	Three-Year Lease of One Honda 2018 Clarity Plug-In Vehicle	02/07/18	02/06/21	18,359	18,359
18287	EVgo Services LLC	Charging Station and Premises Agreement for Installation of One DC Fast Charger at SCAQMD Headquarters	06/27/18	06/26/28	0	0
19190	Daimler Trucks North America	Zero Emissions Trucks and EV Infrastructure Project	12/18/18	06/20/22	8,230,072	31,340,144

Engine Systems and Technologies

17197	VeRail Technologies Inc.	Develop and Demonstrate Ultra-Low Emission Natural Gas Switcher Locomotive	03/03/17	09/02/19	1,000,000	5,100,000
17393	Southwest Research Institute	Develop Ultra-Low Emissions Diesel Engine for On-Road Heavy-Duty Vehicles	05/30/18	07/31/19	575,000	1,325,000
18018	North American Repower LLC	Develop High Efficiency Near-Zero Emission Natural Gas Engines for Heavy-Duty Vehicles	12/14/17	12/12/19	200,000	1,958,096
18194	CALSTART Inc.	Develop and Demonstrate Near-Zero Emissions Opposed Piston Engine	05/30/18	07/31/20	1,000,000	15,500,000

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Engine Systems and Technologies (cont'd)

18122	Clean Energy	Southern California Trucking Demonstration of Near-Zero ISX12N Beta Engines	01/05/18	01/04/20	3,495,000	5,995,000
18211	West Virginia University Innovation Corporation	Develop Thermal Management Strategy Using Cylinder Deactivation for Heavy-Duty Diesel Engines	06/08/18	06/07/20	250,000	700,000

Fueling Infrastructure and Deployment (NG/RNG)

12667	West Covina Unified School District	Upgrade CNG Fueling Facility	10/12/12	03/01/20	60,000	60,000
14219	City of West Covina	Upgrade CNG Station at City Yard	05/15/14	08/01/19	200,000	618,429
15541	Foundation for California Community Colleges	Implement Enhanced Fleet Modernization Program	05/07/15	01/30/19	21,270	30,000
16075	City of Desert Hot Springs	Purchase One Heavy-Duty CNG-Powered Truck	03/11/16	03/10/20	38,000	63,000
16076	Coachella Valley Association of Governments	Purchase and Deploy One Heavy-Duty CNG Paratransit Vehicle	12/01/15	11/20/19	140,000	140,000
16244	CR&R, Inc.	Renewable Natural Gas Production and Vehicle Demonstration Project	09/03/16	03/02/20	900,000	55,000,000
16333	Ontario CNG Station, Inc.	Implement Alternative Fuel Station Expansion	05/13/16	11/12/19	200,000	798,535
17092	Kore Infrastructure, LLC	Construct RNG Production Facility and Demonstrate RNG with Next Generation Natural Gas Engine	10/14/16	10/13/21	2,500,000	25,500,000
17349	University of California Riverside/CE-CERT	Establish Renewable Natural Gas Center	08/03/17	02/02/19	100,000	261,110
18336	ABC Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	117,900	162,900
18337	Alta Loma School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	78,600	108,600
18344	Bellflower Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18346	Chaffey Joint Union High School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18348	Cypress School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18349	Downey Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	157,200	217,200
18350	Fountain Valley School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/07/18	11/30/34	39,300	54,300
18351	Fullerton Joint Union High School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	157,200	217,200
18354	Hemet Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	196,500	271,500
18355	Huntington Beach Union High School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	589,500	814,500

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Fueling Infrastructure and Deployment (NG/RNG) (cont'd)

18363	Orange Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	39,300	54,300
18364	Placentia-Yorba Linda Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18365	Pupil Transportation Cooperative	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	235,800	325,800
18367	Rialto Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	510,900	705,700
18368	Rim of the World Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/05/18	11/30/34	117,900	162,900
18369	Rowland Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	11/02/18	11/30/34	117,900	162,900
18370	San Jacinto Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	09/14/18	11/30/34	78,600	108,600
18374	Upland Unified School District	Replace Diesel School Buses with Near-Zero Emissions CNG Buses	10/12/18	11/30/34	157,200	217,200

Fuel/Emissions Studies

15607	University of California Riverside/CE-CERT	Innovative Transportation System Solutions for NOx Reductions in Heavy-Duty Fleets	12/19/15	01/31/19	79,980	139,980
15636	University of California Riverside/CE-CERT	Evaluate PEV Utilization Through Advanced Charging Strategies in a Smart Grid System	12/15/15	12/31/19	170,000	270,000
15680	National Renewable Energy Laboratory	ComZEV: Develop Detailed Technology and Economics-Based Assessment for Heavy-Duty Advanced Technology Development	08/25/15	06/30/19	520,000	540,000
17245	West Virginia University Research Corporation	Conduct In-Use Emissions Testing and Fuel Usage Profile on On-Road Heavy-Duty Vehicles	06/09/17	06/08/21	1,625,000	1,625,000
17276	University of California Riverside/CE-CERT	Develop ECO-ITS Strategies for Cargo Containers	08/03/17	08/02/20	543,000	2,190,233
17277	University of Southern California	Conduct Market Analysis for Zero Emission Heavy-Duty Trucks in Goods Movement	11/03/17	11/02/19	350,000	524,000
17278	University of Southern California	Develop Freight Loading Strategies for Zero Emissions Heavy-Duty Trucks in Goods Movement	11/03/17	11/02/19	200,000	1,001,000
17286	University of California Riverside/CE-CERT	Conduct In-Use Emissions Testing and Fuel Usage Profile on On-Road Heavy-Duty Vehicles	06/09/17	06/08/21	1,625,000	1,625,000
17331	University of California Riverside/CE-CERT	Conduct In-Use PM Emissions Study for Gasoline Direct Injection Vehicles	07/14/17	01/31/19	222,000	273,000

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Fuel/Emissions Studies (cont'd)

17352	California State University Maritime Academy	Develop and Demonstrate Vessel Performance Management Software and Vehicles	06/09/17	06/08/21	50,086	195,195
18090	University of California Riverside/CE-CERT	Study Secondary Organic Aerosol Formation from Heavy-Duty Diesel and Natural Gas Vehicles	12/05/17	06/30/20	85,000	85,000
18206	University of California Irvine	Assess Air Quality and Greenhouse Gas Impacts of a Microgrid-Based Electricity System	04/06/18	04/05/20	660,000	1,300,000

Stationary Clean Fuels Technology

13045	ClearEdge (novated from UTC Power Corp.)	Energy Supply and Services Agreement to Install One 400 kW Phosphoric Acid Fuel Cell at SCAQMD Headquarters	09/28/12	09/27/22	450,000	4,252,680
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Emissions Control Technologies

17367	Southwest Research Institute	Develop and Evaluate Aftertreatment Systems for Large Displacement Diesel Engines	02/28/18	6/30/19	400,000	480,000
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Technology Assessment and Transfer/Outreach

08210	Sawyer Associates	Technical Assistance on Mobile Source Control Measures and Future Consultation on TAO Activities	02/22/08	02/28/20	10,000	10,000
09252	JWM Consulting Services	Technical Assistance with Review and Assessment of Advanced Technologies, Heavy-Duty Engines, and Conventional and Alternative Fuels	12/20/08	06/30/20	30,000	30,000
12376	University of California Riverside	Technical Assistance with Alternative Fuels, Biofuels, Emissions Testing and Zero-Emission Transportation Technology	06/13/14	05/31/20	75,000	75,000
12453	Tech Compass	Technical Assistance with Alternative Fuels, Fuel Cells, Emissions Analysis and Aftertreatment Technologies	06/21/12	05/31/20	75,000	75,000
15380	ICF Resources LLC	Technical Assistance with Goods Movement, Alternative Fuels and Zero Emissions Transportation Technologies	12/12/14	12/11/20	30,000	30,000
16262	University of California Davis-Institute of Transportation Studies	Support Sustainable Transportation Energy Pathways (STEPS)	01/05/18	01/04/22	240,000	5,520,000
17097	Gladstein, Neandross & Associates, LLC	Technical Assistance with Alternative Fuels and Fueling Infrastructure, Emissions Analysis and On-Road Sources	11/04/16	06/30/19	200,000	200,000
17358	AEE Solutions, LLC	Technical Assistance with Heavy-Duty Vehicle Emissions Testing, Analysis and Engine Development	06/09/17	09/08/19	100,000	100,000

Contract	Contractor	Project Title	Start Term	End Term	SCAQMD \$	Project Total \$
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Technology Assessment and Transfer/Outreach (cont'd)

18019	Ricardo Inc.	Technical Assistance with Heavy-duty Vehicle Emissions Testing, Analysis, and Engine Development and Applications	09/01/17	08/31/19	50,000	50,000
18253	Three Squares Inc.	Identify and Secure a "Futurist" Clean Transportation or Goods Movement Technologies Expert	04/05/18	05/31/18	11,845	11,845
19078	Clean Fuel Connection Inc.	Technical Assistance with Alternative Fuels, EVs, Charging and Infrastructure, and Renewable Energy	09/07/18	09/06/20	100,000	100,000
19160	Coordinating Research Council	Cosponsor 2019 Mobile Source Air Toxics Workshop on 2/4-6/19	11/07/18	02/28/19	5,000	75,000

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Appendix C

Final Reports for 2018

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SCAQMD Contract #12057

October 2018

Expand Hydrogen Fueling Infrastructure

Contractor

Linde LLC

Cosponsors

California Energy Commission
SCAQMD

Project Officer

Joseph Impullitti

Background

Hydrogen fuel cell electric drive technology offers tremendous potential for the light-duty passenger vehicle market and medium- and heavy-duty truck and bus markets. Fuel Cell Electric Vehicles (FCEV) can drive more than 300 miles on a tank of hydrogen and be refueled in 3 to 5 minutes. FCEVs have zero tailpipe emissions and the carbon footprint of these vehicles using hydrogen from reformed natural gas is similar to plug-in electric vehicles. A benefit of hydrogen technology is its ability to be scaled up to handle larger numbers and sizes of vehicles without requiring vast electric grid upgrades. FCEVs require a new network of refueling stations which this project supports. This project also validated liquid hydrogen storage at a typical 7-11 gas station. An advantage of using liquid hydrogen is that a greater amount can be stored at the station as opposed to the more common high pressure hydrogen gas storage method. Liquid hydrogen also offers the benefit of being able to use the stored cold temperatures to increase station throughput and reduce station refrigeration needs to perform -40C fast cold fills as required by the fueling protocol J2601.

Project Objective

The objective of this project was to develop a public retail hydrogen fuel station (HFS) capable of filling hydrogen vehicles, according to fueling protocol J2601 (2010 version), using most major credit cards by means of liquid hydrogen storage and ionic compression.

Technology Description

In this HFS, liquid hydrogen is delivered to the station and stored in a Linde cryogenic liquid

hydrogen tank. Hydrogen is drawn from the tank and compressed by the Linde IC90, ionic compressor, and stored at high pressure to be readily supplied to a car. A temperature control unit is held at -40 C to cool the high pressure hydrogen as it enters the car tank. This is required to meet the J2601 (2010 version) fuel protocol which stipulates that the fill can be done in about three minutes without overheating the car hydrogen tank. The process Linde uses has the unique advantage that the cold hydrogen from the liquid hydrogen tank is cooled by the thermal storage temperature control unit (TCU) during each compression cycle, which reduces the electrical energy from refrigeration to maintain the TCU at -40 C.

Status

The San Juan Capistrano hydrogen fuel station is open to the public, having been commissioned in October 2015. The station is certified by the California Division of Measurement Standards to sell hydrogen by the kilogram and has multiple FCV OEM letters of support assuring the station meets all the J2601 fuel protocol requirements. The completed HFS is shown below. This station has been operated and maintained by Linde for the past three years and is currently in the process of being sold to a third party. This station will continue to operate and service FCVs in the area under the new ownership. Linde will work with the prospective buyers for a smooth transition.



Figure 1: External View of Equipment Yard

Results

The following reflects results for the San Juan Capistrano Linde H2 Fuel Station from 10/1/15 through 9/30/18:

Description	Value
Total kg of Hydrogen Dispensed, kg	30,312
Average kg/day	80.1
Approximate % of H70	94
Approximate % of H35	6
Total Sales, \$	501,361
Number of Days Vehicles Filled	1096
# of Transactions (~Vehicles Filled)	10,520
Average fill (kg)	3.1
Average Transactions per day	28
Total Gallons of Gasoline Equivalent displaced, GGE (1 gal = 0.997 kg)	30,403

Benefits

From station commissioning to the end of September 2018, 30,312 kg of hydrogen was dispensed. Assuming a FCEV delivers 60 miles/kg of hydrogen, there was a GHG emissions reduction of 436 metric tons. This assumes the difference in emissions between gasoline and hydrogen is 240 gCO₂e/mi, as taken from the CaFCP report based on the Argonne National Lab GREET V1_2013 model. This station, and others like it, will lead the transition of personal transportation energy from gasoline to hydrogen, ultimately leading to a renewable transportation energy system and cleaner air for all of California.

Project Costs

Originally the proposed location for this station was in Orange County within the city of Laguna Niguel because it would extend the Irvine cluster to the south into neighborhoods that are a target market of the OEMs. Unfortunately, the original site could not be completed and a new site in the city of San Juan Capistrano was chosen because it offered similar attributes to the original site. Consequently, costs for Task 3-Site Installation were higher than planned. The City of San Juan Capistrano required the design of the HFS to match that of the existing site. The additional scope encompassed the installation of stonework and various other architectural elements to enhance the site appearance. They also required the addition of louvers to screen equipment. Bringing in 480V electrical service required additional equipment and re-design to accommodate the needs of the site. The actual cost for the Task 3-Site Installation project was \$330,000 higher than originally budgeted. SCAQMD's original co-funding was

\$250,000 but they provided another \$80,000 to cover the site location change cost increases.

Funding Source	Amount
CEC Funding	\$2,056,029
SCAQMD Funding	\$ 330,000
Linde Match Funding	\$ 425,108
Total Project Cost	\$2,811,137

Commercialization and Applications

Linde is now operating two, high-capacity, liquid hydrogen based fueling stations to supply light-duty vehicles in California, in addition to the bus and light-duty vehicle fueling stations at AC Transit in Emeryville and Oakland. This is a great step forward for California, and Linde, in leading the nation with hydrogen zero emissions vehicle infrastructure and technology deployment. This project has contributed to the commercialization of the IC90 ionic compressor, which is becoming the industry standard for station developers. It has also facilitated real-world verification of liquid hydrogen supply storage and 350 bar and 700 bar gaseous dispensing as a valid hydrogen pathway for this market. This project has made possible the real application of liquid hydrogen supply and storage for retail stations, which is fundamental to understanding how most effectively to scale the hydrogen economy. The data from this entire effort will be significant in shaping the future hydrogen economy. Based on lessons learned the Linde liquid hydrogen storage and IC90 compressor are ready for widespread commercial adoption. It was determined that the hydrogen dispenser should be improved to reduce operations and maintenance costs and increase station reliability. Linde has developed a new hydrogen dispenser for future applications that has been determined to be a significant improvement over the current generation of dispensers used for this HFS. Linde plans to continue its internal efforts to design and implement a cost-effective and reliable hydrogen production, transportation, storage and dispensing solution to enable market growth, increase gasoline replacement and facilitate the integration of renewable energy.

SCAQMD Contract #14684

February 2018

Conduct Hydrogen Station Site Evaluations for Site Certifications for Commercial Sale of Hydrogen

Contractor

California Department of Food and Agriculture,
Department of Measurement Standards

Cosponsors

California Fuel Cell Partnership
California Air Resources Board
California Energy Commission
SCAQMD

Project Officer

Lisa Mirisola

Project Objective

California Department of Food and Agriculture, Department of Measurement Standards (DMS), in cooperation with California Air Resources Board (CARB), proposed a project to collect accuracy data from hydrogen-gas dispensers to determine current dispenser capabilities and provide certification for retail sale of hydrogen fuel. DMS signed an agreement with the National Renewable Energy Laboratory (NREL) to develop a reference standard device for the measurement of compressed gaseous hydrogen in California. The device developed was used to collect data at a number of existing hydrogen fueling stations and allow them to be certified for commercial sale.

Background

Hydrogen fueling station (HFS) operators need to be able to sell hydrogen fuel by the kilogram, and consumers need to be able to accurately purchase the fuel. In order to enable such commercial sales, California regulations need to be established that allow appropriate dispenser accuracy tolerances.

The specifications and tolerances for hydrogen dispensers are designated in the National Institute of Standards and Technology (NIST) Handbook 44 (HB 44) Section 3.39. Hydrogen Gas-Measuring Devices – Tentative Code. Industry representatives have expressed concern that the HB 44 Acceptance Tolerance of 1.5% and Maintenance Tolerance of 2.0% are too restrictive for the current state of hydrogen measuring and dispensing technology. As such, and prior to the Department's work through interagency funding agreements, no entity has submitted their hydrogen dispenser for the full testing and approval process required for type evaluation and approval of a commercial hydrogen gas weighing and measuring device. To help encourage an earlier transition to commercialization of this zero-emission fuel dispensing technology, the requirements specified in NIST HB 44 have been adopted with modifications in the California Code of Regulations (CCR) Title 4, Division 9, § 4002.9. Hydrogen Gas-Measuring Devices (3.39).

Technology Description

The Gas Technology Institute (GTI) in Des Plaines, Illinois began work on the evaluation of hydrogen dispenser accuracy in 2007 and developed a standard testing device for hydrogen dispensers. In 2010, the CEC funded research and development by DMS to develop a transportable field standard for testing and validating hydrogen dispenser performance at retail stations. Three metrological methods (gravimetric, pressure-volume-temperature (pvt), and master meter) were evaluated. DMS defined the general requirements and specifications for a field standard, and contracted with NREL for its development and construction, leading to the current HFS.



Figure 1: DMS staff testing a hydrogen dispenser

Status

Selected stations utilized variations of both pressure-volume-temperature (PVT) and Coriolis measurement technology and incorporated variations in technology from different dispenser manufacturers. Following testing, owner-operators of the hydrogen dispensers were provided with the raw test data for their specific device, an accuracy assessment, and a Report of Test letter that summarized their device's conformance to established specifications. Follow-up consultation was provided to each station operator and device manufacturer to determine, if needed, any corrective actions necessary to support retesting and eventual type approval for the commercial use of their dispenser.

Results

The HFS incorporates into a single test standard all three proposed metrological methods (gravimetric, pressure-volume-temperature (pvt), and master meter). The HFS was subject to a validation period at NREL. The gravimetric method was the only procedure that could be directly traced to the kilogram reference standard. To meet the fundamental considerations for a reference standard, the expanded uncertainty must be less than 10 grams (0.5% of tolerance). The gravimetric procedure is less than one third or less than 10 grams for the acceptance tolerance of the device under test, while the PVT and master meter failed this criterion. As a result, the HFS gravimetric standard has become the material and method in use for verification that hydrogen dispensers conform to established tolerance requirements.

Of the eight dispensers that qualified for temporary use permits, six manufacturers applied for formal type evaluation; five of these dispenser design types successfully passed permanence testing and were, or are currently being issued a California Type Evaluation Program Certificate of Approval for weighing and measuring devices. Certificates of Approval allow the specific dispenser design type and model to be placed in service at multiple hydrogen stations throughout the state as an approved device. To date, the issued type-approval certificates have facilitated the growth of retail hydrogen fueling stations from zero in 2014 to 31 as of March 31, 2018. The Division also has one additional type evaluation ongoing through second quarter 2018.



Figure 2: Examples of Type Approved hydrogen dispensers

Benefits

SCAQMD's Clean Fuels Program has been active in funding the development and demonstration of low- and zero-emission technologies. Hydrogen fueling stations are necessary to facilitate the introduction and deployment of zero-emission fuel cell vehicles, and this effort will help the SCAQMD to meet its clean air goals, and also better align with CARB's Zero Emission Vehicle and Zero Emission Bus regulations.

Project Costs

Agreements	Cash Budget
CARB (plus in-kind)	\$100,000.00
California Energy Commission (CEC)	\$100,000.00
California Fuel Cell Partnership (CaFCP)	\$150,000.00
SCAQMD	\$100,000.00
TOTAL	\$450,000.00

Commercialization and Applications

The CEC continues to co-fund the installation of a network of hydrogen fueling stations in the state. Continuing collaboration with public and private stakeholders will be required to facilitate Division testing and type evaluation of these newer dispenser designs as they become available for use. The National Conference on Weights and Measures has adopted a single accuracy class for hydrogen gas measuring devices. This single class with increased acceptance tolerance of 5.0% and increased maintenance tolerance of 7.0% supports the early adoption of expanding accuracy classes by California. With the new tolerances published in the National Institute of Standards and Technology Handbook 44, California can now align its specifications with this new national model standard and facilitate marketplace consistency across the country.

SCAQMD Contract #17394

March 2018

Provide Analysis of Renewable Hydrogen Pathways, Economics and Incentives

Contractor

Energy Independence Now

Cosponsors

California Hydrogen Business Council
 Fuel Cell Energy
 Honda Motor Company
 Hydrogenics Corporation
 ITM Power
 Leonardo DiCaprio Foundation
 The Linde Group
 Nel Hydrogen
 Pacific Gas & Electric Company
 Proton OnSite
 SCAQMD
 Southern California Gas Company
 Toyota Motor Corporation

Project Officer

Lisa Mirisola

Technology Description

Hydrogen is produced primarily from two technologies: steam methane reforming and electrolysis. A third technology, called Tri-generation, uses natural gas or biogas as a feedstock to produce electricity, heat and hydrogen. Hydrogen can also be produced using direct solar water-splitting and biological processes; however, these processes are in early stages of research or commercialization.

Status

The final version of Renewable Hydrogen Roadmap was completed in May 2018 and subsequently made publicly available on EIN's website and distributed as a resource for multiple state agencies.

Results

The Renewable Hydrogen Roadmap identifies the opportunities and challenges for renewable hydrogen to provide zero emissions or even carbon-negative transportation fuel as well as critical energy storage for renewable electricity. It considers the many aspects of the current hydrogen ecosystem and identifies the steps and policy decisions that are necessary to stimulate growth in the renewable hydrogen marketplace.

Renewable hydrogen presents a near best-case scenario for clean energy storage and zero emissions transportation. Today, in California and across the world, hydrogen is already produced at scale for industrial processes, such as oil refining and ammonia production. Industrial hydrogen is commonly produced through the reformation of natural gas, but there are many ways to produce hydrogen renewably. This roadmap explores those that are currently most cost-effective and scalable, including production technologies and feedstocks, and lays out the following series of eight high priority policy and stakeholder recommendations for California:

1. Begin the journey to 100 percent renewable hydrogen now;
2. Fund scalable projects for 100 percent renewable hydrogen production;

Background

Energy Independence Now (EIN) developed the Renewable Hydrogen Roadmap which explores decarbonized or carbon-free hydrogen production, primarily through the lens of California's zero emissions transportation goals and its Renewables Portfolio Standard (RFS). This Renewable Hydrogen Roadmap explores the most cost-effective and scalable production technologies and feedstocks, such as renewable electricity or biogas, to present viable pathways for industry, government and consumers.

Project Objective

EIN studied renewable hydrogen pathways, economics initiatives and policy that is conducive for renewable hydrogen. With the findings, EIN produced a white paper and a presentation to engage the broader stakeholder community to support renewable hydrogen education and outreach. It lays out policy and action recommendations to help California achieve its ambitious energy, climate and air quality goals by dramatically reducing pollution and GHG emissions from the energy generation and transportation sectors.

3. Improve low carbon fuel standard (LCFS) incentives;
4. Promote tools to lower the cost of electricity for renewable hydrogen producers;
5. Address hydrogen distribution and storage challenges;
6. Expand US EPA's RFS Program;
7. Incentivize consumers and stakeholders; and
8. Broaden the hydrogen community through education and outreach.

While the roadmap illustrates the case for renewable hydrogen through the lens of transportation, it truly transcends the entire energy sector, enveloping agriculture, waste management and urban planning. Even with the projected number of FCEVs in California surpassing 40,000 by 2022, hydrogen demand by the transportation sector will still only amount to roughly one percent of California's overall need for this vital energy carrier. If all the hydrogen in California (approximately 550 million kg annually at this time) were produced renewably, it would have a truly massive economic and environmental impact.

Benefits

This zero emissions approach puts California on track to achieve its GHG goals and significantly reduce pollution levels. Californians will benefit from cleaner air and reductions in pollution-related health issues while combatting climate change, catalyzing innovation and creating new economic opportunities.

A roughly \$120 million investment would be necessary to fully meet FCEV fuel demand in this short time frame. Without including compression storage distribution and feedstock development, this investment would create approximately 1,725 jobs in the next five years using the American Recovery and Reinvestment Act methodology, or approximately 1,620 jobs using the methodology of the Bay Area Council Economic Institute.

Project Costs

The Renewable Hydrogen Roadmap required extensive research and field interviews with industry, policymakers and energy stakeholders as well as graphic design and copy editing. It cost approximately \$182,500 to produce, with the majority of the funding and support coming from automobile industry, hydrogen sector, and utility companies. SCAQMD funding of \$25,000 was also provided.

Commercialization and Applications

As of late 2017, there were approximately 3,500 light-duty FCEVs in California and 31 publicly accessible hydrogen fueling stations, compared to approximately 25 million total registered automobiles and about 10,000 gas stations. The market for FCEVs and hydrogen fuel are in their infancy and near-term consumer demand for renewable hydrogen likely will not be enough to make an economic case for developers to invest in renewable production infrastructure. Currently, the SB 1505 33.3 percent renewable requirement, coupled with LCFS credits and emerging consumer demand for hydrogen fuel are the only revenue drivers for renewable hydrogen in the transportation market.

As California continues the rollout of hydrogen stations and infrastructure development to support FCEVs, demand for hydrogen by the transportation sector will increase. CARB estimates that by 2019 there will be 13,500 FCEVs on the road, and by 2022, there may be as many as 43,600 FCEVs. Using a "business-as-usual" scenario, CARB projects that by 2022 the capacity of the statewide hydrogen station network will be 16,580 kg/day (assuming only 180 kg/day station capacity for new stations). However, CARB created an "expected" scenario that assumes lower station costs, higher station capacity and private investment not assumed in the "business-as-usual" scenario. The expected scenario splits stations into two groups: those receiving state funding to meet the AB 8 goal of 100 stations; and additional stations funded privately or funded by a new state program. For the first expected scenario, the capacity of stations needed to meet demand would increase to 18,473 kg/day, a nearly 2,000 kg/day increase. For the second expected scenario, the station capacity would need to increase to 46,550kg/day.

Using the "business-as-usual" scenario, the most conservative of CARB's projections, California FCEV drivers will consume over 6 million kilograms of hydrogen annually, and of that figure, over 2 million kilograms will need to be produced renewably in order to meet the SB 1505 requirement. While this is only a fraction of California's current overall hydrogen production, the state currently produces very little renewable hydrogen without the use of offsetting renewable energy certificates to provide a renewable designation.

SCAQMD Contract #13426

July 2018

Develop and Demonstrate Catenary Class 8 Trucks (1 Electric and 1 CNG Platform)

Contractor

Transportation Power, Inc.

Cosponsors

SCAQMD

Project Officer

Joe Impullitti

Background

SCAQMD has identified the development and deployment of zero emissions goods movement transportation systems as one of the agency's top priorities in order to attain federal air quality standards. This project, *Development of Electric and CNG Hybrid Trucks for the Zero Emission Truck & Electric Catenary Highway (ECT-ZETECH)*, initiated the development and demonstration of a catenary, zero emissions goods movement corridor that includes one mile of catenary system and catenary accessible trucks. The primary goal of this project was to promote the implementation of zero emission goods movement technologies, and the secondary goal was to demonstrate the most viable technology to be adopted for a future, regional zero-emissions corridor. Although this project was for a one-mile demonstration, the potential next phase is to build out the remaining route from the ports to the near-dock rail yard which is approximately 5 miles.

Project Objective

The primary objective of this project was to demonstrate the feasibility of using overhead catenary power lines to extend the range of a variety of zero and near zero emission trucks. Transportation Power, Inc. ("TransPower") proposed to deliver two trucks with catenary accessibility. The project approach was to build on the battery-electric drive technology TransPower had been developing for the previous two years, first by converting an existing truck that utilizes a TransPower drive system into a version that can be operated on the catenary, and then by

developing a CNG hybrid truck that incorporates components into a new series-hybrid architecture that uses energy generated by a CNG engine and generator to augment both stored battery energy and energy obtained from the catenary. The battery-electric truck would have an operating range of about 30-40 miles on battery power only, but with a catenary power line, the truck would need battery power only to get to and from the roadway(s) equipped with catenary power. The CNG hybrid truck (pictured below) would have similar battery-electric range, but would also be capable of driving for 100 miles or more using power produced by an onboard natural gas generator, enabling it to operate away from catenary power lines for much longer distances.



Figure 1: TransPower Electric Truck

Technology Description

The core TransPower ElecTruck™ drive system used in both trucks employs a unique combination of two 150 kW permanent magnet motors that were originally developed for the Fisker Karma hybrid passenger car. The demonstration vehicles were equipped with Inverter-Charger Units (ICUs) that combine the functions of the vehicle inverter and battery charger. An Automated Manual Transmission uses proprietary software to control a transmission shift mechanism, enabling operation in multiple gears to maximize vehicle efficiency. The battery modules installed on both

trucks used lithium iron phosphate cells. A proprietary vehicle control system optimizes vehicle efficiency, maximizes battery life, and protects key components such as batteries and power electronics from excessive temperatures, voltage spikes, or current surges.

This core ElecTruck™ system was augmented with large pantograph power pick-up devices built by Siemens and installed onto the trucks by TransPower. This device can be seen in the preceding photo extending over the truck cab to make contact with the overhead catenary line. TransPower also installed DC-to-DC converters on both trucks to convert the higher voltage of the catenary system (up to 750 volts DC) to the 400 volts used by the ElecTruck™ system, along with special electronics to assure safe interaction between the catenary system and the truck's onboard drive system.

Status

The project was completed at the end of 2017. By that time, the battery-electric test truck had been tested intermittently for more than two years and the CNG hybrid truck had undergone more than a year of testing. Testing of the trucks on catenary power was initiated near the end of 2015 on a short catenary test segment in Carson that was a few hundred feet long. Catenary testing was limited to this site until 2017 due to delays in building a longer 1-mile catenary segment along Alameda Avenue. Testing on the 1-mile segment was finally initiated in mid-2017, using the two trucks built under this project and a third hybrid truck built by Volvo under a separate contract. The majority of catenary and off-catenary testing was achieved with TransPower's two trucks, which were completed earlier than the Volvo truck and which performed very reliably. In fact, TransPower's CNG hybrid truck made several trips on its own power from TransPower's headquarters in San Diego County to the Carson test sites, accumulating nearly 1,500 miles of operation over the course of the project. The battery-electric truck accumulated approximately 750 miles of total operation, on top of more than 4,000 miles accumulated prior to its conversion to a catenary-compatible truck.

Results

The project successfully demonstrated the proof of concept of using overhead catenary power to move large Class 8 trucks. A number of new

technologies and components were developed to support this end goal, including the DC-to-DC converter and a new, customized battery management system (BMS) capable of operating at higher voltages than previously available BMS products. In addition, the CNG hybrid truck developed for this project was one of the first Class 8 CNG hybrid trucks with sufficient operating range to make intercity trips. Of the mileage figures cited above, the battery-electric truck was driven for a total of 610 miles on the main catenary test segment, achieving a maximum of 65 miles of testing in a single day, and the CNG hybrid truck was driven for 912 miles on this segment, achieving a daily maximum of 80 miles.

Benefits

TransPower believes that catenary technology can further the adoption of electric trucks by increasing vehicle range without adding more battery energy storage capacity. Based on the test results of this project, TransPower has calculated that each minute of operation on a catenary power line can extend the operating range of a Class 8 truck by 2 miles and displace approximately 5 kilowatt-hours (kWh) of onboard battery capacity. With integrated battery systems likely to cost at least \$300/kWh for the foreseeable future, the availability of catenary power can potentially reduce onboard battery costs by thousands of dollars. However, this benefit must be compared against the incremental cost of the pantograph power pickup system and other truck additions required for catenary operation, along with the cost of the catenary infrastructure itself.

Project Costs

The total cost of the TransPower catenary project was just under \$3.2 million, with a SCAQMD funding contribution of just over \$2.1 million, EPA funding of \$500,000 and TransPower contribution of almost \$600,000. The project was completed within budget.

Commercialization and Applications

The potential size of the U.S. electric Class 8 truck market is in the tens of thousands of trucks per year, signifying great market potential for catenary powered trucks, if net benefits can be proven.

SCAQMD Contract #14062

December 2018

Develop and Demonstrate Catenary Zero Emissions Goods Movement System and Develop and Demonstrate Diesel Catenary Hybrid Electric Trucks

Contractor

Siemens Industry Inc.

Cosponsors

China Shipping Fund
California Energy Commission
SCAQMD
Port of Long Beach
L.A. Metro
Siemens Industry Inc.

Project Officer

Joseph Impulitti

Background

While innovations for transitioning combustion trucks to lower emissions are progressing, the increasing road traffic volume is currently over-riding those improvements.

There is the need of a rapid and practicable solution to freeze and sustainably lower all emissions including locally harmful exhausts and greenhouse gases. Taking the increasing demand for renewable electrical energy in all sectors into account, it will be essential to apply solutions with maximum efficiency. At the same time the technical and operational limitations of energy storage systems such as batteries must be taken into consideration. For heavy-duty trucks a high degree of efficiency can best be achieved by a conductive supply of electrical energy by means of an electric road system (ERS).

Project Objective

Heavy-duty trucks are the number one source of smog-forming emissions in Southern California. Developing a zero- or near-zero emission goods transport system at the ports will reduce smog-forming, toxic and greenhouse gas emissions in communities around the ports, which are heavily impacted by air pollution.

The primary goal of this project was to promote the implementation of zero emission goods movement

technologies, and the secondary goal was to demonstrate the most viable ERS technology to be adopted for a future, regional zero emissions corridor. This was accomplished through the installation and testing of a one mile overhead contact line based electric road system with trucks from different original equipment manufacturers (OEM) utilizing three different drive technologies.

Technology Description

Catenary ERS comprise four subsystems.

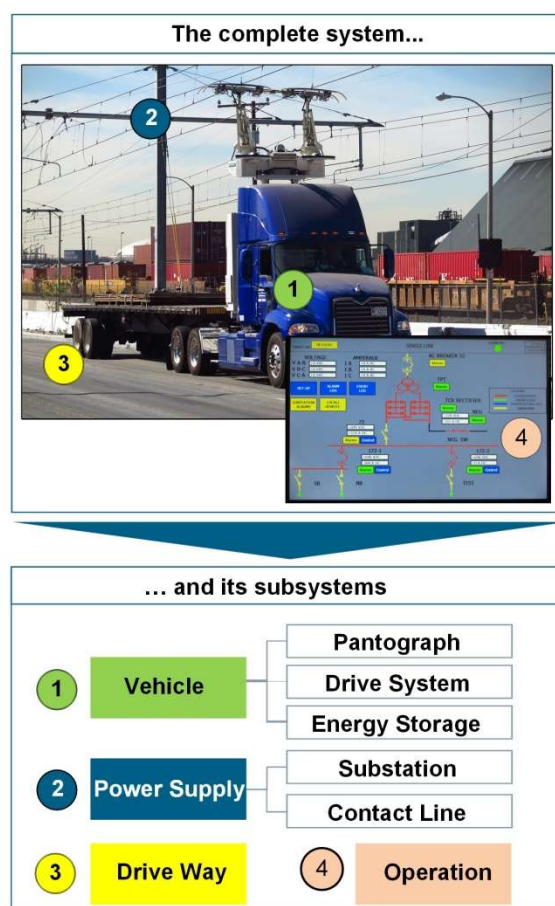


Figure 1: Siemens eHighway System

The core of the system is an active controlled pantograph installed on a hybridized tractor truck. The electrical energy is supplied via an overhead catenary system running over the electrified lanes of the chosen corridor.

The road testing of the catenary based zero emission technology required two inter-related work strings. First, all planning, design and implementation works of the subsystems including their technical interfaces and adaption to the local specifics had to be carried out. Second, the external stakeholders and technical interfaces, e. g. to energy suppliers and road administration, required intense collaboration.

Status

Four active pantographs were produced of which three were integrated into hybridized tractor trucks. The whole system was successfully planned, installed, commissioned and tested. In the course of the project the design of the infrastructure had to be adapted to unforeseen ground conditions. To achieve the initial goal of the project the decision was made to go for a solution which included compromises in the design to increase the speed of realization. Consequently the resulting infrastructure included aspects which are of a rather temporary nature (e.g. type of footings, location of substation).

Testing ended by December 31, 2017 and decommissioning started as foreseen in the scope of work. A full project report on all tasks and test items was provided by February 28, 2018.

Results

During the system testing phase from June 30 to December 31, 2017 the trucks accumulated the following test days and mileages.

Truck	Testing days	Total mileage**	Catenary mileage***
ECAT*	60	980 km	230 km
CCAT*	45	1,460 km	200 km
MACK	50	1,260 km	370 km
	~ 150	~ 3,700 km (2,300 miles)	~ 800 km (500 miles)

* catenary trucks by Transpower (ECAT full electric with battery; CCAT with CNG range extender)

** including turnarounds, battery/CNG/Diesel drives

*** with PAN connected, traction power transfer active

After commissioning, the system ran stable and all required test items were successfully accomplished and demonstrated. During the testing phase the pantographs accumulated 2,380 connect and

disconnect cycles. As a key result the expected average power consumption of a loaded truck-trailer combination in electric mode of 2.5 kWh per mile (at 45 mph and 66,000 lbs. combined vehicle weight) can be confirmed.

Benefits

Based on the demonstration results the eHighway system supplying hybrid trucks via an overhead catenary system can be considered as a valid option for zero emission road freight transports. Additional key benefits include:

- Considerable reduction of emissions in comparison with combustion engines
- High efficacy of locally limited infrastructure measure compared to other ZE technologies
- Increased lifequality of residents at truck routes in conurbations
- Overhead catenary can be installed and integrated without pavement interference
- Successful proof of concept in a representative application environment.
- Ready for next ramp-up steps towards industrialization.

Project Costs

The original project budget was \$14,780,000 including \$1,280,000 of Siemens in-kind contributions. Unplanned additional costs for crash protection on the median increased overall project costs to \$15,210,000.

Funding Source	Amount
China Shipping Fund	\$4,000,000
CEC	\$3,000,000
SCAQMD	\$2,930,000
Metro	\$2,000,000
POLB	\$2,000,000
Siemens (in-kind)	\$1,280,000
Total Project Costs	\$15,210,000

Commercialization and Applications

In order to support commercialization, two business cases for different scales of applications were analyzed and presented.

For the I-710 corridor, the economic savings could exceed \$660 million and would yield reductions in criteria pollutants worth \$450 million. Such potential gains should motivate increased action in exploring catenary systems further. An accelerated implementation plan in the South Coast air basin could start with smaller shuttle applications, that prove the business models.

SCAQMD Contract #15382

January 2018

Install Electric Charging Infrastructure

Contractor

ChargePoint

Cosponsors

SCAQMD

Project Officer

Patricia Kwon

Background

There are approximately 1,800 PEV chargers in need of being upgraded in the South Coast Air Basin. These sites are ideal locations for upgrading EV infrastructure to Level 2 charging stations and can be done at a lower cost than installing new site locations. Leveraging the DOE and/or CEC funding received by two major Electric Vehicle Support Equipment (EVSE) manufacturers—Chargepoint and ECotality—SCAQMD executed contracts with these manufacturers to install new or upgraded Level 2 EVSE at high usage site locations. These site locations were identified by SCAQMD and the manufacturers. Chargepoint received a combination of DOE and CEC funding to pay for hardware and partial installation costs for Level 2 infrastructure at 70 site locations. SCAQMD is providing co-funding of \$1,000 per charger to offset installation costs at these locations. Data will be collected from these chargers and provided to SCAQMD to assist in SCAQMD's PEV infrastructure planning process for the DOE and CEC PEV infrastructure grants covering the South Coast region.

Project Objective

The objective of this project was to install 155 Level 2 charging ports in the South Coast Air Basin. The charging stations had to be public access and located in high utilization areas. Examples of site hosts are amusement parks, community colleges, shopping centers, and municipalities.

Technology Description

ChargePoint's CT4000, a Level 2 charging station capable of charging vehicles at 7.2kW, was the EVSE installed at all sites. This station comes in a single-port or dual-port configuration, and can be wall or pedestal mounted. This station complies with SAE J1772 standard and is UL certified and ENERGY STAR certified. Stations utilize the ChargePoint network, allowing station owners to set pricing, access controls, and obtain utilization data.

Status

This project has been successfully completed with all 155 Level 2 charging ports installed at various sites throughout the South Coast Air Basin. The last stations were installed in December 2017.

The project began in December 2014 and was completed in January 2018. Customer recruitment proved to be more difficult than anticipated due to the requirement for stations to be publicly accessible, and the prevailing wage requirement for site hosts and their installation contractor. In addition, the \$1,000 per port rebate only covered a small portion of the equipment, networking, and installation costs.



Figure 1: EV Charging Stations: Westfield Santa Anita Mall, Arcadia

Results

From January 2015 to December 2017, 155 charging stations dispensed 1,012,318 kWh of electricity.

As a result of increased utilization each year in addition to more charging stations coming online, consumption (kWh) steadily increased, with over 500,000 kWh dispensed in 2017. The chart below shows annual kWh consumption for the three years of this project.

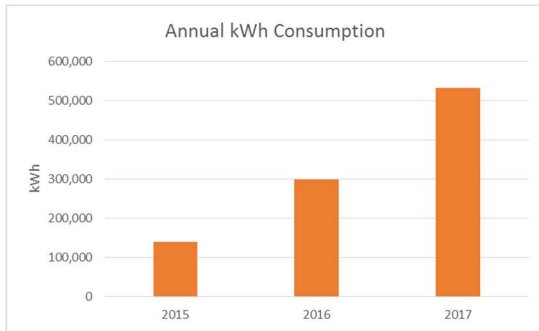


Figure 2: Annual kWh consumption between 2015 and 2017

With the rise in EV adoption rates and all electric range of vehicles, utilization of the charging stations and associated environmental benefits is anticipated to increase.

Benefits

Electric vehicles play an increasingly important role in reducing emissions and greenhouse gases. Transportation is the largest source of greenhouse gases in California, accounting for roughly 40% of the total, with most of that coming from light duty passenger vehicles and SUVs. EV charging stations are going to play a critical role in EV adoption, providing EV drivers with charging and thereby reducing range anxiety.

This project installed 155 publicly accessible charging ports, which over a three year period saved approximately 425 tons of CO₂ and avoided the use of roughly 127,046 gallons of gasoline.

Project Costs

A fixed \$1,000 per port rebate was provided to sites that installed EVSE. The grant was provided to sites after station installation and activation was successfully completed. Sites were responsible for selecting their own installation contractor. Depending on the contractor and the complexity of the installation, such as the need for trenching or electrical infrastructure upgrades, costs varied greatly. Average hardware costs were approximately \$7,000 per dual charger and installation costs varied from \$500 per charging

port if no electrical infrastructure upgrades or trenching was required to \$10,000 - \$20,000 per charging port if electrical infrastructure upgrades and/or trenching was required.

Total funding in the amount of \$162,000 was provided by SCAQMD to ChargePoint. Costs under this project were as follows: \$1,000 x 155 publicly accessible charging ports = \$155,000 plus \$7,000 for installation reports.

Commercialization and Applications

ChargePoint's CT4000 Level 2 station and networking software are commercially available and best suited for public charging where vehicle dwell time is at least one hour and charging rates can offset the cost of electricity, network and payment processing fees, as well as operation and maintenance costs.

Demand for EV charging stations has significantly increased across the South Coast Air Basin and California as EV adoption increases. EV use is expected to continue to increase and public charging will play a vital supporting role in encouraging EV use.

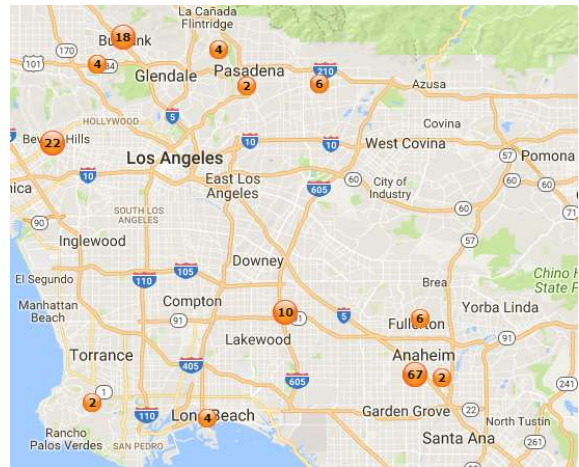


Figure 3: 155 ChargePoint Level 2 Charging Locations in Los Angeles and Orange Counties

SCAQMD Contract #15650

January 2018

Develop and Demonstrate Solar Forecasting for Larger Solar Arrays with Storage and EV Charging

Contractor

University of California, San Diego

Cosponsors

California Energy Commission
U.S. Environmental Protection Agency
California Public Utilities Commission
SCAQMD

Project Officer

Scott Epstein and Aaron Katzenstein

Background

Solar photovoltaic (PV) is an increasingly significant energy resource in California providing zero emissions energy to the electric grid. However, solar PV variability and uncertainty limits solar penetration into the electric power system and increases run-time of peaker plants. Solar forecasting and controllable loads help to reduce the uncertainty of solar PV. Business cases for solar PV operation in conjunction with solar forecasting and controllable electric vehicle (EV) charging are considered.

Project Objective

The objective of the contract was to demonstrate how warehouse rooftops in the Los Angeles Basin can host substantial amounts of zero-emission solar generation and how smart charging of Electric Vehicles (EVs) can mitigate the variability in solar power production.

Technology Description

Decarbonization and criteria pollutant reductions in the electric power sector cannot be achieved by reducing system demand alone. Electricity consumed at different times of the day and year has different underlying emissions impacts. Energy storage and flexible loads combined with solar forecasting into a Virtual Power Plant (VPP) can play an important role in reducing emissions by

offering operational flexibility in the power system while providing reserve capacity to markets.

Smart EV charging can provide benefits both system-wide to the electric grid as well as to the utility customer. Detailed methodologies to evaluate business cases were developed for wholesale market sales, demand charge management, energy arbitrage, and generation capacity savings/deferral.

To generate solar forecasts, nine hemispheric sky imaging cameras were deployed in the Los Angeles Basin. This globally unique network of cameras provide wide-area coverage with a specific focus on warehouse rooftop areas. Simulations show how more accurate forecasts enable better dispatch of workplace EV loads with long layover periods during which they are connected to the grid. PV forecasts are leveraged to shape an aggregated EV load profile that ‘fills the valley’ in feeder net load resulting from PV generation. Different fleets of EVs that range up to the medium and heavy-duty (school busses) were considered. Control actions are updated in real time given the present and forecast net load as well as the currently connected Plug-in Electric Vehicles (PEVs) and their departure times.

Status

The project was completed on schedule in January 2018. University of California, San Diego (UCSD) in conjunction with University of California, Los Angeles and Strategen Consulting, Inc. were not successful at finding demonstration sites for the EV charging algorithms. It was too difficult to find all the required hardware (solar, EV, flex charging) in one place and get the owner and occupant to agree to the fairly extensive installation of monitoring and control equipment. Simulations were based on real load data, real PV production data, and real EV data sets and can be considered representative of actual conditions.

Results

The algorithm was successful in flattening the net load. Economics of the selected use cases are analyzed over a year in Figure 1. Forecasting-aware

scheduling benefits the customer primarily through reduction of demand charges. Conversely, wholesale market sales of PV energy directly to the California Independent System Operator (CAISO) day-ahead market were found to be economically infeasible. The ratepayer benefit of focusing on capacity deferment only was found to be small compared to the microgrid cost savings due to high reliability of the CAISO system. However, ratepayer benefits accrue also indirectly when optimizing around the retail energy costs. Appropriately designed time-of-use tariffs drive scheduling decisions that benefit both the customer and all ratepayers.

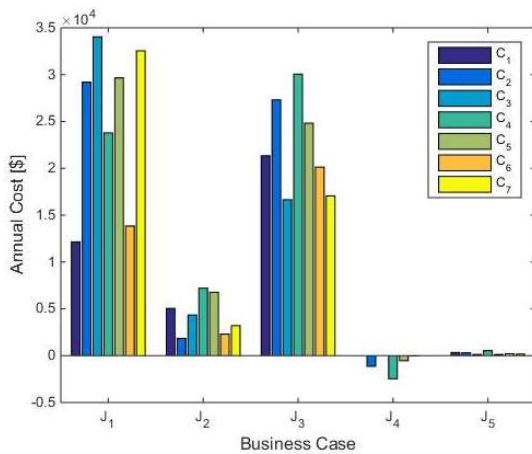


Figure 1: Distribution of annual costs when optimizing for different business cases: C₁: Non coincidental demand charge only; C₂: Peak demand charge only; C₃: Energy arbitrage only; C₄: Wholesale market sales only; C₅: Capacity deferment only; C₆: All objectives; C₇: non-optimized charging. The costs for each business case are split by category: J₁: Non coincidental demand charge; J₂: Peak demand charge; J₃: Energy arbitrage; J₄: Wholesale market sales; J₅: Capacity deferment

Benefits

The project showed that utility customers who implement solar forecasting and smart EV charging could achieve a 67% reduction in energy costs over the year. Monthly peak demand is reduced by 63% on average.

Flexible EV charging at the workplace also reduces criteria pollutant emission through two pathways:

- 1) EV consumption of excess solar electricity during midday reduces curtailment of solar power. Thus carbon-free energy that would otherwise be

wasted is utilized and displaces carbon-intensive electricity that would otherwise be consumed at night when commuters plug in at home.

- 2) EV Charging is scheduled to lower peak load on the grid which reduces the runtime or even allows mothballing of inefficient peaker plants.

Project Costs

The total project costs consisted of \$98,908 from SCAQMD; \$396,700 from U.S. Environmental Protection Agency (EPA); \$156,386 from the California Public Utilities Commission (CPUC) and \$999,984 from California Energy Commission.

Funding Source	Amount
CEC	\$999,984
EPA	\$396,700
CPUC	\$156,386
SCAQMD	\$98,908
Total Project Cost	\$1,651,978

Commercialization and Applications

Recommendations are provided in the final report to increase the availability of daytime EV charging that support the concepts developed in this contract. UCSD is currently working with Nuvve Corporation to implement solar forecasting and smart EV charging algorithms into EV fleets. These demonstrations commenced in the spring of 2018 and may pave the way for widespread commercialization of smart EV charging. The project parties expect substantial emissions and economic benefits from the technology developed under the SCAQMD award.

SCAQMD Contract #16047

September 2018

ZECT I: Develop and Demonstrate Three Class 8 LNG Plug-In Hybrid Electric Drayage Trucks

Contractor

US Hybrid Corporation

Cosponsors

US Hybrid Corporation

U.S. Department of Energy

SCAQMD

University of California, Riverside

National Renewable Energy Laboratory

Project Officer

Phil Barroca

Background

Thousands of older model year diesel-powered heavy-duty vehicles are used in Goods Movement activities in Southern California and, as a result, significantly contribute to NOx emissions and to this region's non-attainment with NAAQS for ozone pollution. This project was developed and supported through DOE's Zero Emission Cargo Transportation Program to demonstrate zero emissions heavy-duty vehicle technology useable in freight transportation. This project developed and demonstrated three Class 8 plug-in hybrid electric trucks (PHETs), two of which were demonstrated in drayage operations by fleet operator TTSI which serves the San Pedro Bay Ports area, railyard and regional freight transportation operations. The third PHET was used as a demonstration vehicle for interested parties and events, for continued product development, and conducting emissions testing at the University of California Riverside (UCR) in order to quantify emissions reduction benefits of the hybrid electric system.

Project Objective

The objective of the project was to develop and demonstrate heavy-duty hybrid electric technology that is useable in drayage operations. Operational data collected from the two demonstration vehicles helped quantify fuel economy and other metrics including total cost of ownership. Project goals included:

- 1) Reducing emissions by utilizing zero and near-zero powertrain technologies and alternative, low-carbon fuels;
- 2) Validating the technical and market feasibility of the pre-commercial technologies in preparation for a full-scale, commercial vehicle production launch;
- 3) Generating operational and performance data for the new, PHET vehicle to facilitate commercialization and broad deployment, thereby increasing the environmental and fuel efficiency benefits; and
- 4) Creating a positive economic impact for California through job creation and cost reduction of drayage truck operations.

Technology Description

The primary technology utilized in this project included the Cummins ISL-G 8.9-liter LNG-powered spark-ignited engine and a 222 kW interior permanent magnet motor in a parallel electric hybrid configuration, 80 kWh of lithium-ion battery storage, and 72 DGE of LNG fuel storage.



Figure 1: PHETs

PHET integration includes electric motor/generator in-line between the engine and transmission with auto clutch and, all electric air, hydraulic and HVAC system with 12V and 24V

batteries, DC-DC converter powering the auxiliary systems, and a high voltage lithium-ion batteries. The electronically controlled pneumatic driven clutch allows the electric motor to be decoupled from the engine and permits electric only operation seamlessly and fully transparent to the driver. The electric auxiliary systems (i.e., power steering, air compressor and air conditioning) are installed in parallel with the engine driven systems to give full functionality in EV-only mode. Transitioning between all-electric mode and hybrid-electric mode is an automated transparent

function that is controlled by the vehicle control unit and requires no input from the driver. The vehicle is equipped with an onboard charger that allows it to be plugged in when not in service, providing a full battery state-of-charge at the beginning of every shift.

The PHET's parallel hybrid configuration results in greater horsepower and torque than larger displacement diesel engines while providing zero emissions operation in near-dock operations, near-zero emissions operation in most other regional applications and a 250-mile total operating range utilizing existing LNG fueling infrastructure with no evaporative emissions. By optimizing the overall control architecture, the Class-8 PHET has significantly higher fuel economy than a comparably powered conventional engine powertrain while providing the power and torque necessary for drayage operations including accelerating over port bridges and steep highway passes.

Status

The PHET project was completed in September 2018. PHET #1 and #2 were completed and delivered to TTSI on February 27, 2017, and March 29, 2017, respectively. Truck #3 was completed and delivered to UCR for dyno testing in Q3-2017. A no-cost time extension was executed to allow additional time to optimize the hybrid systems to improve fuel efficiency and performance and complete the project.

Results

TTSI demonstrated the PHET vehicles from March 2017 through October 2018. Data from each vehicle was collected, compiled and analyzed by NREL. NREL's analysis of these vehicles showed an average efficiency of 3.82 kWh/mi or a 62.5 percent improvement relative to the baseline diesel vehicle tested under this project. The PHETs developed under this project produced higher power (Figure 2) and torque (Figure 3) than the baseline 8.9-liter ISL-G and the 12-liter diesel powered Cummins ISX12 rated at 400 h.p. and 1650 lb-ft. (2237 N-m) torque, significantly improved energy efficiency, and 80 percent less NOx. The trucks performance with both LNG and battery had a range of 250 miles, with exclusive "all-electric" battery range of about 30 miles.

The PHETs demonstrated in this project exceeded operator's expectations for handling all cargo loads and duty cycles expected of drayage vehicles

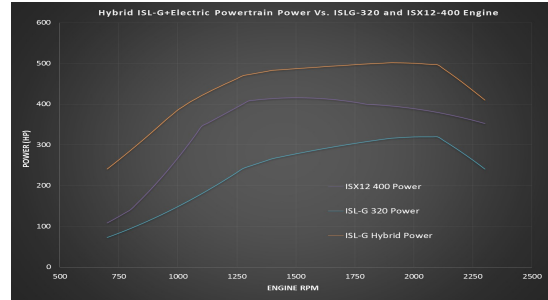


Figure 2: Power Curves

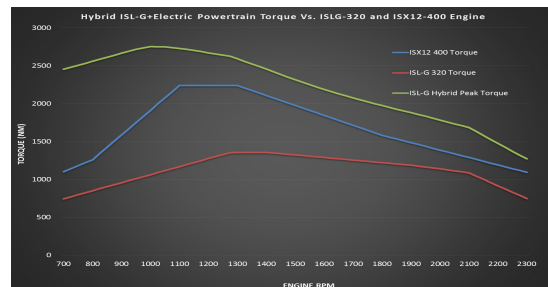


Figure 3: Torque Curves

while meeting zero emissions and near-zero-emissions operations for NOx and lowering GHG emissions using: (1) plug-in battery electric operation for the first 30 miles, (2) hybrid-electric operation during on-road operation, and (3) renewable low carbon intensity LNG alternative fuel. The hybrid configuration provided better fuel and energy economy and hence lower operating costs than a comparably powered non-hybrid heavy-duty vehicles. Additionally, the all-electric operation applied in queuing operations at the port significantly reduced NOx emissions attributable to idling and lower exhaust temperature events.

Project Costs

Total project costs were \$1,996,675 with \$925,000 from DOE, \$22,896 from SCAQMD and \$1,048,779 from US Hybrid.

Commercialization and Applications

US Hybrid believes drayage truck operators can benefit the most from this technology and can realize immediate return on investments from outstanding engine performance, improved energy efficiency, and reduced emissions from near dock and other operations associated with drayage operations.

SCAQMD Contract #15632

June 2018

Develop Ultra Low-Emission Natural Gas Engine for On-Road Medium-Duty Vehicles

Contractor

Gas Technology Institute

Cosponsors

SCAQMD

Ricardo

Southern California Gas Company

Power Solutions International

Project Officer

Joseph Lopat

In addition the engine system must be commercially viable and capable of:

- Achieving emissions targets of 0.02 g/bhp-hr NO_x, 0.01 g/bhp-hr PM, 0.14 g/bhp-hr NMHC, and 15.5 g/bhp-hr CO, as determined by the heavy duty engine FTP
- Keeping exhaust NH₃ emissions as low as achievable while targeting 10 ppm,
- Achieving minimal fuel economy penalties relative to 2010 U.S. EPA and CARB certified diesel engines on similar duty cycles, and
- Being certified by the U.S. EPA and CARB.

Background

Medium- and heavy-duty on-road diesel vehicles are currently amongst the top ten sources of NO_x emissions in the South Coast Air Basin. These source categories are still projected to be one of the largest contributors to the NO_x emissions inventory, even as the legacy fleet of older and higher polluting vehicles are retired from operation and replaced with vehicles meeting the most stringent 2010 emission standards. The development of ultra-low emission natural gas engines would significantly reduce emissions from this on-road source category and assist the region in meeting federal ambient air quality standards in the coming years. Additionally, the ability to develop an internal combustion engine that emits 90% lower NO_x emissions, relative to current standards for heavy-duty vehicles would begin to address the issues associated with the NO_x emissions produced in the operation of heavy-duty vehicles when also factoring in emissions associated with electricity production.

Project Objective

The objective of this project is to develop an ultra-low NO_x natural gas engine suitable for on-road applications in the Class 4 to Class 7 vehicle weight rating range. This vehicle segment includes delivery, emergency, transit and other small heavy-duty applications.

Technology Description

Utilizing Ricardo's vast experience in research and development, a naturally aspirated 8.8 liter engine was chosen. The existing stoichiometric cooled exhaust gas recirculation (EGR) spark ignited combustion was selected as the platform. Ricardo began modeling and developing the required exhaust gas recirculation and turbo charger configurations that would best suit the 0.02g/bhp-hr requirement. Power Solutions International (PSI) is an engine builder of natural gas powered engines. The collaboration between PSI and Ricardo was determined to be a positive pathway for development.

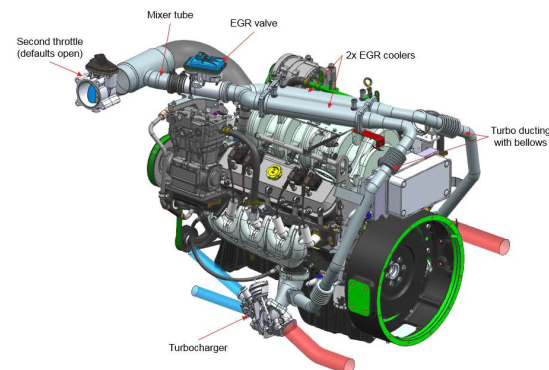


Figure 1: Engine Concept

Status

Many design ideas such as the configuration of EGR and Turbo charger were developed. The control software also had begun to be developed.

Results

The project was mutually terminated among all parties and the funds repurposed for other projects.

Benefits

The 8.8 –liter engine would have been a favorable alternative for class 4-7 vehicles. The availability of an engine with ultra-low emission, specifically one that reduces NOx by over 90% from the current federal standard would enable air quality districts in California as well as other areas of North America to carry out their emissions reduction plans and move closer to meeting their ambient air quality goals. Specifically targeting the NOx emissions attributed to commercial on-road vehicles would be an additional benefit.

Project Costs

This project was originally funded by SCAQMD, Ricardo, SCG and PSI in an amount totaling \$1.8 million. The chart below reflects actual expenditures before the project was ended.

Project Partners	Funding Amount
SCG	\$55,000
SCAQMD	\$250,000
Total	\$305,000

Commercialization and Applications

This project was ended before completion. The original design had packaging concerns with integration into the vehicle. After several months of design technical readiness level two discussions, PSI decided to pursue different alternatives in other markets. PSI determined there would not be a significant market to ensure payback on development of the technology.

SCAQMD Contract #16205

June 2018

Develop, Integrate and Demonstrate Near-Zero Emissions 12-Liter Natural Gas Engine for On-Road Heavy-Duty Vehicles

Contractor

Cummins Westport Inc.

Cosponsors

California Energy Commission
Clean Energy Fuels
SCAQMD
Southern California Gas Company

Project Officer

Joseph Lopat

Background

Heavy-duty on-road diesel vehicles are currently among the top ten sources of NO_x in the South Coast Air Basin (Basin). This source category is still projected to be one of the largest contributors to NO_x, even as the legacy fleet of older and higher polluting vehicles are retired from operation and replaced by the cleanest vehicles meeting the most stringent emissions levels. Development of near-zero emissions natural gas engines would significantly reduce emissions from this source category and assist the region in meeting federal ambient air quality standards.

Project Objective

The objectives of this project were for Cummins Westport Inc. (CWI) to develop and demonstrate a 12-liter natural gas engine and associated aftertreatment technologies suitable for on-road heavy-heavy-duty vehicle applications, such as Class 8 trucks and buses. In addition, the engine system had to be commercially viable and capable of:

- Achieving emissions targets of 0.02 g/bhp-hr NO_x, 0.01 g/bhp-hr PM, 0.14 g/bhp-hr NMHC and 15.5 g/bhp-hr CO, as determined by heavy-duty engine Federal Test Procedures (FTP);
- Keeping exhaust NH₃ emissions as low as achievable while targeting 10 ppm;
- Achieving minimal fuel economy penalties relative to 2010 U.S. EPA and CARB-certified diesel engines on similar duty cycles, and
- Being certified by U.S. EPA and CARB.

Technology Description

An extensive process was undertaken to design and develop a 12-liter engine and aftertreatment to meet the 0.02 gram NO_x level. Utilizing learnings from previous technology development, the existing stoichiometric-cooled exhaust gas recirculation (EGR) spark-ignited combustion was selected as the platform to complement with the following additions/changes:

- Implementation of a closed crankcase ventilation (CCV) system with additional pressure sensor;
- Aftertreatment size increased, improved formulation, and O₂ sensor location changed;
- Redesigned fuel system for improved fuel delivery accuracy and responsiveness; and
- Improved software with various emissions optimizing control strategies and addition of an HD-OBD.

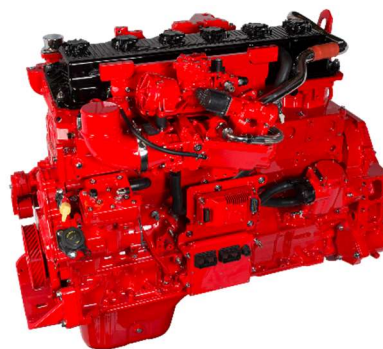


Figure 1: 12-Liter NG Engine

The closed crankcase ventilation system consists of an electrically driven coalescence filter and hose assembly. Crankcase emissions are routed to the filter where oil is separated through high speed rotation of the filter. The vapor is introduced into air intake at the turbo compressor inlet so that it can enter the combustion process. Separated oil is returned to the engine sump. An additional CCV pressure sensor allows the control system to monitor pressure in the CCV system and alert the operator to issues as part of system diagnostic.

The combination of increased aftertreatment size and improved formulation increases the overall conversion efficiency of the catalyst and thereby

reduces emissions. A key part in the optimized control of the aftertreatment is the relocation of the O₂ sensor from the outlet to the mid-bed location.

A redesigned fuel system achieved the goal of increasing the accuracy and responsiveness of the fuel delivered to the combustion chamber, enabling the control software improvements.

The optimized control software targets high NO_x forming portions of the duty cycle and utilizes the above-mentioned hardware changes to reduce tailpipe emissions.

Status

The project was successfully completed with the ISX12N receiving U.S. EPA and CARB certification (to the optional low NO_x 0.02 g/bhp-hr level) in December 2017. The engine went into commercial production at the Cummins Jamestown, NY, engine plant February 2018. The final report is on file with technical details of the project.

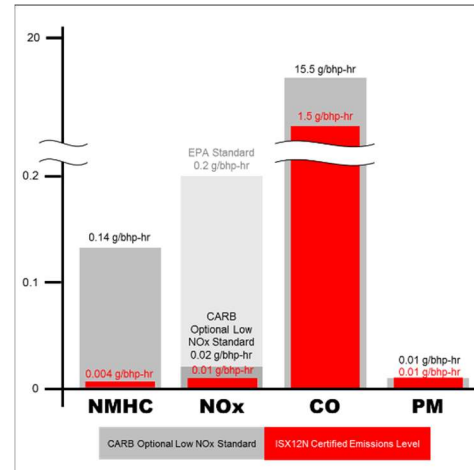
The standard Cummins engine development process was followed, which included analysis and testing at a component level thru to the system level. Multiple prototype engine builds were completed prior to production and tested in test cell dynamometers and in test vehicles.

Fifteen pre-production engines were installed in 14 tractor style trucks and in one refuse truck. Thirteen of these vehicles were owned by fleets and placed back into commercial service. Two of the vehicles were “rapid” test vehicles operated by Cummins and intended to accumulate mileage quickly. The field test vehicles successfully accumulated 1.25 million miles.

The University of California, Riverside (UCR) conducted a third-party chassis dynamometer testing of one field test vehicle, which showed that the ISX12N 400 natural gas engine met and exceeded the target NO_x emissions of 0.02 g/bhp-hr and maintained those emissions during in-use duty cycles found in the Basin. Other gaseous and particulate matter emissions were below the standards and/or similar to previous levels. Particle number, ammonia emissions and methane emissions were higher than current 2010 certified diesel engines on similar drive cycles.

Results

The objectives of this project were achieved. U.S. EPA and CARB certification were received, with results shown in the following graphic.



While the stretch NH₃ target of 10 ppm was not achieved, NH₃ emissions were reduced by over 50 percent with a value of 40 ppm demonstrated.

Fuel economy analysis based on CO₂ emissions from the FTP cycle suggest the ISX12N is approximately 15 percent more fuel efficient than a similar 2010 ISX12 diesel engine. Also based on CO₂ emissions, UCR testing found the fuel economy also appeared to be similar to previous versions where the urban dynamometer driving schedule showed the lowest CO₂ emissions and were below the current FTP standard of 555 g/bhp-hr for both the cold start and hot start tests during in-use chassis testing.

Benefits

The availability of a 12-liter near-zero emissions engine, specifically one that reduces NO_x by over 90 percent from the current federal standard enables air quality districts in California (and other states who wish to adopt more stringent standards) to carry out their emissions reduction plans in order to meet ambient air quality goals, specifically targeting NO_x attributed to heavy-duty on-road vehicles.

Project Costs

Total project costs were \$5.25 million with cost-share funding as follows: Clean Energy-\$500,000 (10%); CEC-\$1,000,000 (19%); SCG-\$1,000,000 (19%); CWI-\$1,000,000 (19%); and SCAQMD-\$1,750,000 (33%).

Commercialization and Applications

This engine is now available to a wide range of original equipment manufacturers of heavy-heavy-duty vehicles for duty cycles used in regional haul and refuse trucks and coach buses. It is also available for incentive funding programs.

SCAQMD Contract #12851

December 2018

Install, Operate and Maintain Three Natural Gas Fueling Stations

Contractor

Clean Energy

Cosponsor

California Energy Commission
SCAQMD

Project Officer

Phil Barroca/Drue Hargis

Background

The South Coast Air Basin (Basin), which encompasses all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties, is in non-attainment with state and federal standards for ozone and PM emissions. Ozone and PM emissions affect human health contributing to respiratory disease, lung damage, cancer, birth defects and premature death. Air pollution also negatively impacts the environment and sensitive ecosystems. Alternative fueled vehicles help to reduce NOx and PM emissions and meet federally mandated air quality standards. The SCAQMD has a long history of supporting development and commercialization of alternative fueled vehicles and the infrastructure to support them.

Project Objective

Clean Energy has been operating natural gas fueling facilities in the Basin for many years. The SCAQMD, through a CEC grant (#PON-09-006), provided Clean Energy funding to offset the cost to install, operate and maintain three public access, liquefied natural gas (LNG) fueling stations. The three stations would be located at the following sites: 14226 Valley Blvd., Fontana (92335) at an existing truck stop located less than one-half mile from Interstate 10; 45-601 Dillon Road, Coachella (92336), at an existing travel stop less than one-tenth mile from Interstate 10; and 23261 Cajalco Expressway, Perris (92571) at an existing travel zone center less than one-half mile from Interstate 215. Clean Energy was responsible

for designing, constructing, installing and commissioning the three LNG fueling stations.

Technology Description

These stations were designed to support heavy duty trucks and included the following equipment: LNG storage tank, LNG pump skid, offload skid, two LNG dispensers, vaporizer skid, switchgear, and card reader as well as site improvements including, but not limited to, utility service lines, block wall, asphalt, concrete and landscaping.

Furthermore, Clean Energy's LNG is significantly derived from renewable low carbon intensity sources to help reduce greenhouse gas emissions.

Status

All three public access station projects were successfully implemented and are currently open and operating.

The Coachella station opened to the public in May 2013 and the Fontana station in November 2013.



Figure 1: Coachella LNG Station



Figure 2: Fontana LNG Station

The Perris station opened in July 2015, following difficulties establishing permanent power for the station. It was a catch-22 situation. The county would not provide a meter release because the station lacked power on final inspection but Clean Energy couldn't get one without the other. Their lead engineer had to work closely with the county and SCE to get the count inspector to finally grant a meter release. A lessons learned here is to allow more time for this process and the need to continue educating county inspectors.



Figure 3: Perris LNG Station

In addition, the Perris station closed temporarily in December 2017 because it was dispensing very low volume due to a number of factors from anticipated customers deciding to install private, mobile fuelers to the variable seasonable demand from local hay farmers coupled with lower diesel costs slowing natural gas truck procurements. Clean Energy made the decision to temporarily close the LNG station to save operational costs while working to identify new fleet customers. The station was re-opened in May 2018. A longer final report is on file.

Results

Natural gas for transportation typically costs less than gasoline or diesel, saving money daily for vehicle and fleet owners who use these stations. Specifically, these three LNG fueling stations helped promote transition to cleaner burning fuels, encouraging current natural gas fleets to expand use of natural gas and new fleets to switch to natural gas. Furthermore, these three LNG stations are reducing significant amounts of air pollutants through the displacement of heavy-duty diesel trucks.

Although the original estimated throughput for each station was higher than the first full calendar year of actual fuel dispensed, the stations brought real, quantifiable emissions reductions based on the volume of diesel displaced. California is accelerating fleet turnover to transition to cleaner burning fuels, and since these stations are at convenience fueling sites near major interstates, throughput should increase steadily.

ANNUAL THROUGHPUT IN DGE		
	2016	2017
COACHELLA	110,100	181,529
FONTANA	439,461	608,370

Benefits

Based on the stations' volume over the past three years, the stations have directly reduced 1,378,883 pounds of criteria pollutants and greenhouse gas emissions.

Emission Reductions (Pounds)					
	Carbon Monoxide (CO)	Volatile Organic Compound (VOC)	Nitrogen Oxide (NOx)	Fine Particulate Matter (PM2.5)	Greenhouse Gas (GHG)
Emissions Reduced:					

This project has displaced 825,145 gallons of diesel, a large contributor of air pollution linked to lung disease, asthma, cancers and other respiratory and critical illnesses.

Project Costs

SCAQMD using CEC funding provided Clean Energy \$1.4 million to offset the costs to construct all three LNG stations. Clean Energy provided the remaining cost-share. Projected costs varied from actual costs due to the cost of construction and delay in permitting. The engineering timelines were longer than the development timeline which caused costs to be higher than anticipated. Projected vs actual costs are illustrated below.

	Coachella	Fontana	Perris
Projected Costs	\$1,319,356	\$1,394,317	\$1,287,323
Total Cost	\$1,526,496	\$1,361,684	\$1,425,921
Grant	\$500,000	\$500,000	\$400,000
Cost-Share	\$1,026,496	\$861,685	\$1,025,921

Commercialization and Applications

Clean Energy successfully established three new public access LNG stations in the Basin. These stations are operating on 24-hour per day, 7-days per week basis.

SCAQMD Contract #12852

January 2018

Upgrade Existing CNG Fueling Station at City Corporate Yard

Contractor

City of Corona

Cosponsors

City of Corona
MSRC/AB 2766 Discretionary Fund
SCAQMD

Project Officer

Phil Barroca/Drue Hargis

Technology Description

The City installed three storage vessels, a dual-hose fast-fill dispenser, card reader and priority valve panel. By doubling the existing storage capacity from 36,000 CF to 72,000 CF of CNG, it allowed for the installation of the additional dual-hose fast-fill dispenser, which is an ANGI Series II dispenser with an advanced LCD display and electronics, integrated micro-processor mass flow, sequential and display electronics eliminating remote components, weights and measures certified, three-bank sequencing, temperature compensation, and OPW P36 fill nozzles.

Status

The project was completed and the upgraded station opened to the public in September 2014. During the design phase of the project, there were some delays due to sub-consultants not performing per schedule and to the amount of time the different parties required for the plan review. During the construction everything ran smoothly; the concrete pad was built for the storage vessels; vessels were installed; lights were relocated; the fast-fill dispenser and card reader were installed; and other required civil improvements were constructed. A more detailed Final Report is on file.

Background

In 2003, the City of Corona constructed a CNG station at 430 N. Cota Street, Corona, near the I-15 and SR-91. The station was originally constructed with two Greenfield C3U gas compressors delivering a maximum throughput of 764 cubic feet (CF) per minute, with a storage capacity of 36,000 CF, with a single dual-hose, fast-fill dispenser. Since it was the only CNG fueling station within a 12-mile radius, the station storage capacity and single dispenser became insufficient to serve the residents, commuter traffic and several corporate fleets in the area. When the SCAQMD through a CEC grant (#ARV-10-054) offered funding for new and upgraded natural gas stations, the City of Corona applied for and was awarded funding to upgrade its station.

Project Objective

The objective of this project was to increase the CNG fueling capacity and provide the public with faster fueling service. The City's goal was to add an additional 36,000 CF of CNG storage and an additional dual-hose fast-fill dispenser. This would double the throughput capacity, reduce the dispensing time and greatly enhance the local CNG infrastructure for the public's utilization. Under direction by the City of Corona, Fuel Solution Inc. developed design plans for the station upgrades, and the City contracted with Go Natural Gas Inc. to construct the station.



Figure 1: New Dual-Hose Fast-Fill Dispenser



Figure 2: CNG Storage Vessels

Results

Expansion of the existing Cota St. public access CNG fueling station was essential to accommodate increasing users and the subsequent demand for CNG utilization. According to EIA's Alternative Fuel Vehicle Data, CNG demand has increased steadily since 1995. This is beneficial to the environment since natural gas emits approximately 6-11 percent lower levels of GHGs compared to gasoline throughout fuel life cycle, according to the Argonne National Laboratory. Another study shows that there is more than a 90 percent reduction in petroleum use for CNG compared to gasoline. The U.S. DOE mentions that another positive thing is that U.S. natural gas reserve is abundant compared to petroleum, of which 33 percent is imported from politically volatile countries.

Table 1: Throughput in Gasoline Gallon Equivalents (GGE) Consumed

<u>Period</u>	<u>GGE</u>	<u>Fueling Transaction</u> <u>s</u>
9/1/14 to 8/30/15	490,795	54,835
9/1/15 to 8/30/16	454,913	49,720
9/1/16 to 8/30/17	425,952	45,813
9/1/17 to 8/30/18	373,523	44,349

Benefits

The construction of the project increased the CNG fueling services provided by the City of Corona. The storage capacity was increased by approximately 36,000 CF and the fueling wait time was decreased by the installation of the additional dual-hose dispenser. CNG burns cleaner than gasoline or diesel and produces fewer

emissions of hydrocarbons, NOx, CO and CO2. CNG is also less expensive than gasoline or diesel, resulting in cost savings for the City and the users of its CNG fueling station.



Figure 3: Station after Upgrade

Project Costs

The costs for the project included design, equipment procurement, geotechnical construction services and construction. The original estimate was \$450,000, and while there were no major change orders during the design or construction of the project, some costs were underestimated. Funding for the project was as follows:

Table 2: Funding Partners

<u>Cosponsor</u>	<u>Cost-Share</u>
MSRC/AB 2766 Discretionary Funds	\$225,000
SCAQMD (through CEC AB 118 grant)	\$200,000
City of Corona General Fund	\$57,812
Total	\$482,812

Commercialization and Applications

The use of CNG vehicles benefits the environment and public health. The City will install additional storage capacity in the future if needed.

SCAQMD Contract #12853

December 2018

Upgrade CNG Fueling Station

Contractor

Rainbow Disposal Company, Inc.

Cosponsors

California Energy Commission
SCAQMD

Project Officer

Phil Barroca/Drue Hargis

Background

In 2010, the SCAQMD amended Rule 1193. The revised rule required solid waste collection vehicles providing waste collection services to public agencies to be powered by alternative fuels by January 1, 2020.

Rainbow Disposal Company, Inc. (RDC), has operated a CNG fuel station in the northwest quadrant of Orange County since 2007. The access to alternative fuels for communities is limited by geographic convenience, fueling capacity, physical barriers to quantity, and the amount of compatible vehicles. The existing public fuel station at RDC has 24-hour accessibility with ingress and egress access for buses, heavy equipment, and multi-passenger vehicles to fuel simultaneously. Additionally, RDC originally installed 50 CNG “time-fill” dispensers which served three quarters of its collection vehicle fleet.

Project Objective

The objectives of this project were three-fold: 1) Comply with Rule 1193 by increasing the quantity of CNG powered vehicles from 50 to 72; 2) Increase CNG fueling capacity by increasing the quantity of time-fill CNG dispensers to accommodate 22 additional CNG-powered collection vehicles and increase the volume of reserve CNG capacity at the public “fast fill” station; and 3) Reduce CNG electrical costs by increasing the volume of CNG storage reserves. This last objective would be achieved by increasing the amount of CNG that can be compressed overnight during lower electric rate periods, reducing the number of CNG compressor start-ups and shut-downs, and cost effectively

utilize stored CNG during higher electric rate periods. These efforts would results in lower operating costs through reduced compressor usage during higher electric rate periods. Data collected by RDC shows these station improvements reduced the amount of kilowatts (kW) consumed by nearly eight percent.



Figure 1: CNG “Cascading” Storage Tanks



Figure 2: Public CNG Station



Figure 3: CNG Time-Fill Dispenser

Technology Description

The technology used in this project includes one ASME three-pak of CNG storage vessels rated at 12,207 scf at 5,000 psig and eight time-fill dual-hose dispensers with three bank sequencing for each hose.

Status

RDC completed the installation of the additional CNG storage vessels and the 22 vehicle dispensers in January 2015. The existing intercompany and public fueling stations remained operational during the project.

Results

Rule 1193 Compliance/Increased CNG Dispenser Capacity – The addition of the 22 fueling dispensers allowed RDC to replace its remaining fleet of diesel trash collection vehicles with CNG trucks. A total of 20 diesel collection trucks and 3 diesel transfer trucks were replaced with CNG trucks between 2015 and 2018. Using an energy density ratio of 86.55 percent CNG:diesel, **Figure 4** shows the amount of diesel gallons reduced by increasing the facility’s CNG capacity. **Figure 5** depicts the total amount of CNG gallons used in the last five years.

Year	Rainbow CNG Usage	Increased CNG Gallons (Since 2014)	Reduced Diesel Gallons
2014	437,262	-	-
2015	482,201	44,939	38,894
2016	522,998	85,736	74,205
2017	547,751	110,489	95,628
2018	599,141	161,880	140,107
Totals	2,152,091	403,044	348,834

Figure 4: Diesel Usage Reductions

Year	Public	Rainbow	Total
2014	99,446	437,262	533,708
2015	94,867	482,201	577,068
2016	64,067	522,998	587,065
2017	64,052	547,751	611,803
2018	73,269	599,141	672,411

Figure 5: Total CNG Gallons Used

Increased CNG Fueling Capacity – In addition to the 22 CNG fuel dispensers, 3 “cascading” CNG storage tanks that were added to reduce kW’s used to start and stop the CNG pumps. As shown in **Figure 6**, the facility achieved a sustained 7.8 percent kW consumption reduction following the installation of the additional CNG storage tanks in 2015.

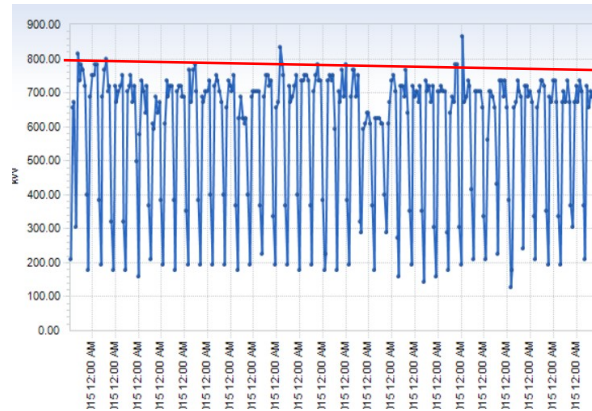


Figure 6: kW Consumption Reductions in 2015

Benefits

Following the completion of the CNG upgrade project, RDC has displaced approximately 348,834 gallons of diesel. Using the EPA/DOT standard of 22.38 pounds of CO₂ emissions per gallon for diesel consumed and 14.22 pounds of CO₂ per gallon for CNG consumed, this project has resulted in a reduction of approximately 2,075,619 pounds in CO₂ emissions since it was completed in 2015.

Project Costs

Costs for the station upgrades paid by Rainbow Disposal and SCAQMD with funding from a pass-through grant from the CEC.

Funding Source	Cost-Share
RDC	\$240,891
SCAQMD (through CEC pass-through revenue grant #ARV-10-054)	\$200,000
Total Cost	\$440,891

Commercialization

The technology employed in this project, cascade sequential CNG storage and dispensing with time-fill, is commercially proven and provides lower costs of operation for anchored fleets that can fuel overnight.

SCAQMD Contract #12854

December 2018

Upgrade LNG Fueling Station at Baldwin Park Facility

Contractor

Waste Management

Cosponsors

SCAQMD
Waste Management

Project Officer

Phil Barroca/Drue Hargis

Background

Waste Management (WM) owns and maintains a fueling facility for refuse collection vehicles at 13940 Live Oak Ave., Baldwin Park. WM has operated a limited public-access liquefied natural gas (LNG) refueling station since 2003. Committed to reducing emissions and implementing cleaner solutions, WM has increased their fleet from 53 heavy-duty natural gas solid waste collection trucks to 75 with the purchase of additional LNG and compressed natural gas (CNG) heavy-duty vehicles to operate at the Baldwin Park facility. To fuel this natural gas fleet, WM planned for the expansion of their fueling station. This included the installation of an additional LNG storage vessel, compressors, pumps, dispensers and a vaporizer to create CNG. WM applied for and received cofunding from the SCAQMD as cost-share for the installation of the storage vessel as well as related work for site improvements.

Project Objective

The objective of this project was to add approximately 16,000 gallons of additional LNG storage capacity to an existing 16,000 gallons for a total capacity of approximately 32,000 gallons at its existing publicly accessible LNG fueling station in Baldwin Park. In addition, WM would expand the use of their fueling station by adopting advance technologies to vaporize LNG to CNG to support local fleets, both public and private. Other related work would include site improvements and upgrade of controls related to the added storage capacity and technology.

The purpose of this project was to reduce emissions from heavy-duty refuse collection vehicles by installing the necessary infrastructure to fuel extremely low emissions natural gas vehicles. WM will operate the LNG/LCNG fueling station at its facility in Baldwin Park.



Figure 1: LNG Tank Installation

Technology Description

This project involved the installation of one additional above-ground storage tank with a capacity of approximately 16,000 gallons, four CNG storage spheres, two LCNG pumps, one fan assisted LCNG vaporizer, one odorant injection system, and an upgrade to an existing PLC control system to allow the interface of the new equipment.

All equipment meets AGA, ANSI, API, ASME, ASTM, NEC, NFPA, OSHA, and SAE requirements.

Status

WM completed installation of the LNG tank, and the station has been operational since May 2012. No significant problems were encountered during the construction of the project. The final report is on file with complete technical details of the project. In accordance with Contract #12854, Waste Management will operate the station for at least five years and continue reporting to the SCAQMD during that period.

Results

Now that the additional LNG storage installation and related work is complete, the station can adequately provide fuel for their growing natural gas fleet. The expansion of the station will result in fuel cost-savings due to the lower cost of natural gas, increase energy security and lower emissions, all air quality benefits achieved by displacing diesel fuel.

Annual Fuel Throughput

Throughput data from the upgraded LNG-CNG station since it was completed in May 2012:

Period	LNG Gallons	CNG (DGE)
May2012-Apr2013	282,224	344,728
May2013-Apr2014	246,883	325,706
May2014-Apr2015	333,998	397,241
May2015-Apr2016	251,166	495,065
May2016-Apr2017	154,393	505,121
May2017-Apr2018	136,666	541,758

The first two-year period is data from WM vehicles only, while the throughput listed from subsequent years includes WM vehicles and third-party users accessing the fueling station.

Benefits

WM is familiar with the many benefits of natural gas, operating one of the largest fleet of heavy-duty natural gas trucks in North America. Benefits identified include fuel cost-savings, energy security, and lower emissions.

Additionally, natural gas fuel contains less carbon than any other fossil fuel and thus produces lower carbon dioxide (CO₂) and greenhouse gas (GHG) emissions per year. In fact, natural gas vehicles produce 20-30 percent less greenhouse gas emissions than comparable diesel vehicles. Therefore, the successful installation of this additional storage tank will lower the tail-pipe emissions of WM's natural gas fleet and other public and private fleets operating within the South Coast Air Basin.

Based on the average throughput of 310,149 gallons of LNG per year and 292,572 DGE of CNG per year, WM estimates that the Baldwin Park station achieves a reduction of

approximately 36 tons of NO_x and 0.73 tons of PM per year¹.

Project Costs

The total cost of the new LNG storage tank and related site improvements was \$1,719,189. WM paid \$1,419,189 and was awarded \$300,000 cost-share from the SCAQMD as pass-through funding from the CEC AB 118 Program (Agreement #ARV-10-054) for the upgraded natural gas fueling station.

Commercialization and Applications

This project will provide the additional necessary infrastructure needed in order to make alternative fuels like natural gas a commercially available and preferable fueling option. Commercial fleet drivers and owners of CNG –equipped vehicles can now fuel at WM's newly upgraded Baldwin Park station.

Additionally, the Baldwin Park LNG/LCNG Infrastructure Expansion Project will provide solutions to the development and widespread use of natural gas as a transportation fuel. Public and private fleets will be encouraged to switch to natural gas as additional infrastructure is available due to both the environmental and cost-saving benefits. This project is also beneficial to those vehicles subject to Rule 1193, which requires public and private solid waste collection fleets having exclusive contracts with public entities and greater than 15 trucks to purchase or replace existing vehicles with alternative fuel vehicles.

WM is committed to reducing emissions and implementing cleaner solutions, such as the construction/expansion of alternative fuel infrastructure and natural gas vehicle deployment throughout the South Coast Air Basin.

¹ Estimated using Carl Moyer Program Guidelines (Adopted April 2011) methodology for calculating criteria pollutant emission reductions and using a baseline model year 2006 diesel refuse collection vehicle

SCAQMD Contract #15438

June 2018

Refurbish Ontario LCNG Fueling Facility

Contractor

United Parcel Service

Cosponsors

California Energy Commission
Department of Energy
SCAQMD

Project Officer

Phil Barroca

Background

An important aspect of natural gas vehicle deployment in California is the supporting infrastructure. The UPS Ontario LNG/CNG (LCNG) station is a public/private access LNG and CNG refueling facility located at 3140 E. Jurupa Ave. Ontario, CA 91761. The facility is adjacent to the Ontario International Airport in a predominantly industrial and commercial zone of the Inland Empire region of Southern California, one of many regions that comprise the South Coast Air Basin (Basin), a region which continues to be non-attainment with state and federal ozone and PM air quality standards.

The United Parcel Service (UPS) LCNG facility has provided natural gas fueling since 1997. The station received funding support from the CEC and DOE to refurbish storage and dispensing equipment and other associated systems to permit the station to operate reliably and continue providing natural gas fueling to UPS and other natural gas vehicle operators in the area. The UPS LCNG refurbishment was a replacement project to the original CEC award under #ARV-10-035; the original CNG infrastructure project, also located in Ontario, was abandoned due to irreconcilable differences between the station owner and its partner.

Project Objective

The goal of this project was to continue reliable LNG fueling for UPS and other LNG-powered vehicles. UPS' original proposal was based on unreliable LNG fuel supply in combination with expected increases in fleet size, vehicle miles traveled (VMT) and fuel demand. Subsequent to

grant award and contract execution, UPS realized a significant improvement in the reliability of LNG fuel delivery, reducing the immediate need for more onsite LNG storage capacity. In recognition of improved fuel delivery and to reduce project costs, UPS and SCAQMD submitted a request to revise the project scope to a station refurbishment, eliminating the costs associated with the purchase and installation of a new 18,000 gallon LNG tank. The project scope was further revised when it was determined that a proposed new LNG dispenser would not be able to communicate with the rest of the LNG system because UPS was unable to gain legal access to proprietary software access codes.

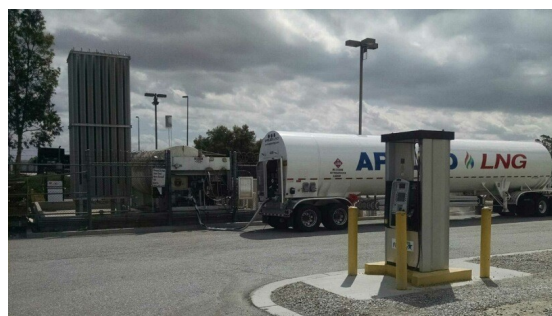


Figure 1: LNG Fuel Delivery to Station

Technology Description

UPS performed the following upgrades and refurbishments to the LNG/LCNG refueling station:

- Removal and replacement of LNG submersible pump;
- Rebuilt old LNG pump for back-up;
- Removed and replaced LCNG pump cold ends and rebuilt old cold ends for back-up;
- Removed and replaced CNG dispensers with new dual-hose 3,600 psi dispensers;
- Removed and replaced odorant injection system;
- Performed corrosion control on CNG storage vessels and repainted CNG vessels;
- Identified leaks on LNG storage vessel and repaired as necessary;
- Tested LNG tank and vacuum jacketed piping for proper vacuum and re-pulled vacuum on LNG tank and lines following repairs;

- Serviced the air system and changed air compressor oil and replaced air filters;
- Changed system desiccant dryer material and leak tested all connection points and repaired leaks, as necessary.

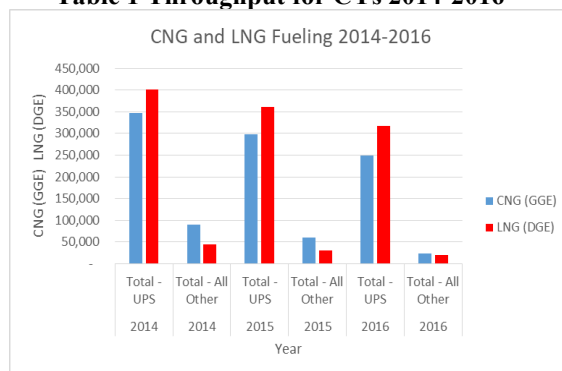
Status

UPS met the goals of this reduced-scope project, successfully restoring and upgrading an established public access LNG/LCNG fueling station in the Inland Empire area near the well-travelled 10 and 60 Interstate freeways. The completion of these upgrades restores the reliability and fueling capacity of the original LCNG station and provides increased incentive for goods movement operators, municipal fleets, school districts and water agencies to adopt or expand the use of natural gas vehicles. UPS continues to use this station to fuel heavy-duty vehicles operating between Southern California and Las Vegas as well as heavy-duty goods movement activities within the Basin.

Results

The refurbishment of this station restored the station to its original capacity, maintaining its current refueling capabilities and upgrading all private CNG dispensers, hoses and nozzles to 3,600 psig. Below is a graph of the throughputs reported for LNG and CNG from this facility between 2014 and 2016. UPS is the major consumer of the fuel dispensed at this station. UPS has expanded its fleet of heavy-duty LNG powered vehicles from 11 to 44 since 2010.

Table 1 Throughput for CYs 2014-2016



Between UPS's 38 heavy-duty CNG vehicles and its heavy-duty LNG fleet, it is displacing more than 600,000 gallons of petroleum fuel annually, with public fleets displacing another 100,000 gallons annually.

Benefits

UPS' fleet of Class 8 LNG-powered and Class 7 CNG-powered heavy-duty vehicles are the largest and most consistent fuel consumers at this refueling facility. A baseline emissions reduction assessment for this facility can be performed using the Carl Moyer Program Guidelines (July 2014)¹ methodology for calculating criteria pollutant emission reductions. If it is assumed that a comparable fleet of heavy-duty diesel-powered vehicles, subject to the 1.2g NOx per bhp-hr standard, used an equivalent amount of diesel fuel as shown in Table 2 (converting CNG to diesel gallon equivalents), the reduction in NOx from the heavy-duty natural gas-powered vehicles would be approximately 13 tons per year.

Project Costs

The UPS Ontario refurbishment project received \$55,792 from the CEC and \$223,168 from the U.S. DOE, which were received as pass-through funds to SCAQMD who administered the project. Total project expenses were \$278,960, with in-kind contributions provided by UPS.

Commercialization and Applications

This project will provide the continued and necessary infrastructure needed to make natural gas a commercially available and preferable fueling option. UPS remains committed to reducing emissions and creating cleaner solutions, such as the construction of alternative fuel natural gas refueling stations for its fleet and others within the neighborhoods that UPS employees work and live. This refurbishment project helps to illustrate how the lifespan of a natural gas refueling station can be extended and in turn increase the investment potential and economic attractiveness of natural gas as an alternative fuel.

¹ California Environmental Protection Agency, Air Resources Board, "Carl Moyer Program Guidelines" July 2014 Appendix D – Tables for Emission Reduction and Cost Effectiveness Calculations

Evaluate SOA Formation Potential from Light-Duty GDI Vehicles

Contractor

University of California Riverside/CE-CERT

Cosponsors

California Air Resources Board

ICM Inc.

Manufacturers of Emission Controls Association

SCAQMD

Project Officer

Wei Li

Background

Gasoline direct injection (GDI) vehicles are known for higher fuel efficiency and power output but the particulate matter (PM) emissions profile is not well understood, especially on secondary organic aerosol (SOA) formation potential. As manufacturers introduce more GDI models in the market to meet new fuel economy standards, it is important to understand the SOA forming potential from these vehicles as it could lead to further impact on the ambient PM concentration in the South Coast Air Basin (Basin).

Project Objective

The University of California, Riverside (UCR)/CE-CERT evaluated the primary emissions and SOA production from eight current technology GDI vehicles over the LA92 test cycle. This program had three distinct goals (or separate exercises): 1) evaluate primary emissions and SOA formation from conventional GDI vehicles; 2) evaluate particulate emissions, toxic pollutants and SOA formation from GDI vehicles with and without gasoline particle filters (GPFs); and 3) examine the impact of fuel composition on the tailpipe emissions and SOA formation from GDI flexible fuel vehicles (FFVs).

Technology Description

A 30m³ mobile environmental chamber, which is the largest known reactor currently available, was designed and constructed for this program. The large volume (surface area to volume ratio of ~2.2:1) and non-reactive chamber material was selected to help

minimize wall loss of aerosols and semi-volatile precursors.

Emissions tests were conducted in CE-CERT's light-duty chassis dynamometer over the LA92 test cycle. Primary emissions were measured during the tests. Emissions were also collected using the mobile environmental chamber during emissions tests then the chamber was transferred to the atmospheric processes laboratory for aging until air mass was depleted. Secondary emissions measurements were made during the reaction process.



Figure 1: A vehicle is being tested on the chassis dynamometer with the mobile environmental chamber collecting primary emissions.

Status

The scope of this study was expanded with additional funding and in-kind contribution from ICM, MECA and CARB to include hot-start test cycle, additional and more detailed emissions characterization and toxicity analysis. Emissions tests were successfully completed in November 2017. Comprehensive data analysis for the primary and secondary emissions was completed in August 2018. CE-CERT is producing journal papers describing the results of this project with four journal papers having been submitted to date. Two additional journal papers are in preparation for submittal.

Results

For the first exercise, four 2015 to 2016 model year GDI vehicles were tested. Results showed that PM, black carbon (BC) and particle number (PN) emissions increased markedly during accelerations and the cold-start phase, indicating severe wall

wetting that led to slower fuel evaporation and pool burning. PN and BC emissions showed large reductions during the urban and hot-start phases. Aged exhaust emissions resulted in distinct secondary aerosol emissions that varied significantly in physical and chemical structure. Two of the four vehicles produced considerable amounts of inorganic aerosol, thereby modifying secondary aerosol volatility and hygroscopicity. Primary PM emissions from all vehicles in this study met their certification requirements for their respective model years; however, all vehicles exhibited potential to form a considerable amount of secondary aerosol with different composition.

For the second exercise, two 2016 model year GDI vehicles were evaluated for the effects of catalyzed GPF addition to GDI vehicles. The use of catalyzed GPFs greatly reduced the toxic polycyclic aromatic hydrocarbons (PAHs) and their nitrated derivatives (nitro-PAHs), as well as dramatically reduced PM, PN and BC emissions. Gaseous emissions of NO_x, total hydrocarbons (THC) and non-methane hydrocarbons (NMHC) were also reduced. Production of SOA was reduced with GPF addition, but was also dependent on engine design which determined the amount of SOA precursors at the tailpipe. This study indicates that SOA production from GDI vehicles will be significantly reduced with the application of catalyzed GPFs through the mitigation of reactive hydrocarbon precursors.

For the third exercise, two GDI FFVs were tested with four fuels of different ethanol blend levels: E10 with high aromatics, E10 with low aromatics, intermediate E30 and high E78 blend. Vehicles fueled with E30 and E78 exhibited reductions in THC, NMHC, CO and NO_x emissions compared to the high aromatics E10. Particulate emissions from vehicles fueled with E30 and E78 showed large reductions compared to both E10 fuels. Acetaldehyde formation was favored by the higher ethanol content in the fuel, whereas benzene, toluene, ethylbenzene and xylene (BTEX) emissions increased with the high aromatics E10 and reduced with E30 and E78 fuels. As the ethanol content increased, the secondary aerosol formation potential decreased in both FFVs, due to reduction in SOA precursors (i.e., NMHC). In general, this study found that high ethanol content is not only effective in the reduction of tailpipe PM, but also has the potential to greatly decrease SOA formation potential of the emitted exhaust.

As shown in the Figure 2, results from this study were compared to earlier peer-reviewed studies exploring SOA formation from gasoline vehicles. The comparison showed that SOA formation dropped

as the emissions certification standards became more stringent.

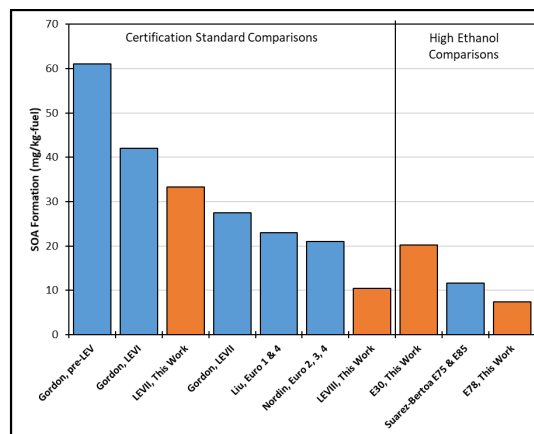


Figure 2: Comparison of SOA formation from GDI vehicles in this study and from gasoline vehicles in earlier peer-reviewed studies

In summary, this study showed that higher aromatics will increase SOA, while higher ethanol blends will reduce SOA formation. The results also showed that SOA formation increased with increasing NMHC emissions, suggesting that further reductions in NMHC emissions are necessary from current technology GDI vehicles. Catalyzed GPFs may help to reduce SOA productions from GDI vehicles.

Benefits

This study will enhance our ability to model the formation of SOA from GDI vehicles, helping to close the gap between atmospheric measurements and model predictions of PM concentrations. Models equipped with these SOA formation processes could then be used to help formulate science-based policy for the reduction of ambient PM concentrations.

Project Costs

SCAQMD	ICM Inc.	MECA	CARB	Total
\$174,972*	\$126,000	\$50,000	In-kind analysis	\$350,972

*The initial funding from SCAQMD under this contract was \$149,972. An additional \$25,000 was subsequently funded under another SCAQMD contract (#12376) for technical assistance and analysis through a task order issued to UCR/CE-CERT.

Commercialization and Applications

The mobile environmental chamber developed in this project could be further utilized for examining SOA formation from mobile sources, assessing air quality and the overall environmental impacts of mobile sources.

SCAQMD Contract #14185 / #17336

June 2018

Conduct Education Outreach for the Basin DC Fast Charging Network Project

Contractor

Three Squares Inc.

Cosponsors

California Energy Commission

EVgo

Clean Fuel Connection

Project Officer

Patricia Kwon

role, they designed a comprehensive outreach strategy to raise awareness about the new DCFC stations throughout their surrounding communities. TSI developed a series of DCFC station launch events, ranging from traditional press events to awareness events held in conjunction with other scheduled events or site host promotional opportunities. TSI also partnered with community organizations and Electric Vehicle (EV) advocacy groups to spread the word about DCFC stations to their networks through social media, online calendars, and e-newsletter promotions.

Background

Involving local stakeholders in Plug-in Electric Vehicle (PEV) readiness is crucial to the successful deployment of Direct Connection Fast Chargers (DCFC) charging stations. Drivers and charging site hosts need help understanding the benefits of driving PEVs and having public fast charging in their communities. They also need help in understanding the economic value proposition that PEV driving and/or charging holds for them, and the correct procedures for using DCFC charging stations.

Project Objective

The objective of this project was to develop and conduct a community outreach and education campaign to facilitate PEV readiness in electric vehicle fast charging station communities. This objective was launched by engaging stakeholder groups, including the following:

- Site hosts (owners/employees/students);
- Local businesses (owners/employees);
- Local homeowners and commuters;
- Local governments, associations, and media; and,
- PEV advocacy groups;
- SoCal Fast

Technology Description

Three Squares Inc. (TSI) served as the Project Community Outreach and Education Lead. In this

Status

This project was completed in June 2018. Through this project, DCFC station launch events were held for the following locations: Calabasas City Hall, Palm Desert City Hall, Palm Springs Visitors Center, Mel's Drive-In on Sunset, City of Los Angeles Department of Transportation (LADOT), Westwood, LADOT Hollywood and Highland, La Kretz Innovation Center, and LADOT Little Tokyo.



Figure 1: Outreach Event-Hollywood Farmers Market

A range of outreach collateral was prepared as part of this campaign, including creation of a website, www.SoCalFast.com to provide a guide for the public to Southern California's electric vehicle fast charge network as well as pull-ups and postcards promoting SoCalFast and their network of stations.

Growing the attendance of launch events presented an unanticipated challenge during this project. After analyzing the problem, the team determined that the following factors limited the events' growth:

- When stations are located in smaller parking lots of commercial businesses, events must be held in off-hours so not to disrupt normal business operations. However, holding events in these hours also decreases the potential audience size for the launches.
- DCFC stations are only able to charge one car every 30 minutes. Therefore, a five-hour event is only able to accommodate a maximum of 10 cars.
- Currently, DCFC stations are only able to charge a select lineup of PEVs. Because of this, the majority of EV drivers are unable to participate in the launches.

To address these challenges, TSI amended the education and outreach strategy to prioritize hosting launch events in conjunction with other community events, such as farmers' markets. Applying this strategy, TSI was able to expand the outreach audience to include attendees of the other community events.

Results

DCFC station launch events were held to promote the grand opening of eight stations. Additionally, TSI executed digital outreach campaigns to promote the opening of those stations. TSI partnered with community organizations and EV advocacy groups to spread the word about DCFC stations to their networks through social media, online calendars, and e-newsletter promotions. These outreach campaigns were successful in getting information about DCFC stations and the SoCalFast network to millions of people.

The following table illustrates the digital reach of each campaign:

Station/Campaign	Digital Reach
Palm Desert City Hall & Palm Springs Visitors Center	137,500 people
Mel's Drive-In on Sunset	489,900 people
LADOT Westwood	803,700 people
LADOT Hollywood & Highland	704,600 people
La Kretz Innovation Center & LADOT Little Tokyo	821,900 people
Total	2,957,600 people

Given that the stated purpose of this project was to disseminate information about SoCalFast DCFC stations, this project can be considered successful. Information about these stations was distributed to nearly 3 million people who live in and around the communities in which the stations are located.

Benefits

Through the outreach and education campaign, PEV educational information was distributed to members of the communities where SoCalFast DCFC stations are located. Educational materials included information about the benefits of driving PEVs and having public fast charging, the economic value proposition that PEV driving and/or charging holds, and the correct procedures for using DCFC charging stations.

Project Costs

This project was completed for a total of \$63,411.28, funded by SCAQMD. The project was executed for less than the original anticipated cost of \$89,183.

Commercialization and Applications

N/A

Appendix D

Project Ranking

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Project Ranking

For each of the core technologies discussed earlier in this report, staff considers numerous factors that influence the proposed allocation of funds, ranging from overall Environment & Health Benefits, Technology Maturity and Compatibility, and Cost, summarized in the proposed ranking system.

Within the broad factors included above, staff has included sub-factors for each specific type of project that may be considered, as summarized below:

Environment and Health

Criteria Pollutant Emission Reduction potential continues to receive the highest priority for projects that facilitate the NO_x reduction goals outlined in the 2016 AQMP. Technologies that provide co-benefits of Greenhouse Gas and Petroleum Reduction are also weighted favorably, considering the Clean Fuels Program is able to leverage funds available through several state and federal programs, as well as overall health benefits in reducing exposure to Ozone and PM_{2.5}, especially along disadvantaged communities.

Technology Maturity & Compatibility

Numerous approaches have been used to evaluate technology maturity and risk that include an evaluation of potential uncertainty in real world operations. This approach can include numerous weighting factors based on assessed importance of a particular technology. Some key metrics that can be considered include Infrastructure Constructability that would evaluate the potential of fuel or energy for the technology and readiness of associated infrastructure, Technology Readiness that includes not only the research and development of the technology, but potential larger scale deployments that consider near-term implementation duty and operational compatibility for the end users. These combined factors can provide an assessment for market readiness of the technology.

Cost/Incentives

The long-term costs and performance of advanced technologies are highly uncertain, considering continued development of these technologies is likely to involve unforeseen changes in basic design and materials. Additionally, economic sustainability – or market driven – implementation of these technologies is another key factor for the technology research, development, demonstration and deployment projects. Therefore, in an effort to accelerate the demonstration and deployment, especially some pre-commercialization technologies, incentive programs such as those available from local, state and federal programs are key, but may be underfunded for larger scale deployments. As a part of the 2016 AQMP, staff has also included the Draft Financial Incentives Funding Action Plan to address the funding necessary for full implementation of the control measures included.

Staff has proposed a simplified approach to ranking the core technologies, especially some of the specific platforms and technologies discussed in the draft plan and annual report. The rankings below take into account experience with implementing the Clean Fuels Program for numerous years, as well as understanding the current development and deployment state of the technologies and associated infrastructure, and are based on the following “Consumer Reports” type approach:

● Excellent ● Good ○ Satisfactory ● Poor ● Unacceptable

The table below summarizes staff ranking of the potential projects anticipated in the draft plan, and it is noted that technology developers, suppliers, and other experts may differ in their approach to ranking these projects. For example, staff ranks Electric/Hybrid Technologies and Infrastructure as Excellent or Good for Criteria Pollutant and GHG/Petroleum Reduction, but Poor to Good for Technology

Maturity & Compatibility, and Satisfactory to Unacceptable for Costs and Incentives to affect large scale deployment. It is further noted that the Clean Fuels Fund's primary focus remains on-road vehicles and fuels, and funds for off-road and stationary sources are limited.

This approach has been reviewed with the Clean Fuels and Technology Advancement Advisory Groups, as well as the Governing Board.

Technologies & Proposed Solutions	Environment & Health			Technology Maturity & Compatibility				Cost	
	Emissions Reduction	GHG/Petroleum Reduction	Health Benefits	Infrastructure Constructability	Technology Readiness	Near-Term Implementation/ Duty Cycle Fulfillment Capability	Operations Compatibility	Relative Cost & Economic Sustainability	Incentives Available
Electric/Hybrid Technologies & Infrastructure									
Plug-In Hybrid Heavy-Duty Trucks with Zero-Emission Range	●	○	●	●	○	●	●	●	●
Heavy-Duty Zero-Emission Trucks	●	●	●	●	○	●	○	●	●
Medium-Duty Trucks	●	●	●	●	○	○	●	●	●
Medium- and Heavy-Duty Buses	●	●	●	●	○	●	○	●	●
Light-Duty Vehicles	●	●	●	●	●	●	●	○	●
Infrastructure	-	-	-	●	●	●	●	○	●
Hydrogen & Fuel Cell Technologies & Infrastructure									
Heavy-Duty Trucks	●	●	●	○	●	●	●	●	●
Heavy-Duty Buses	●	●	●	○	●	●	●	●	●
Off-road – Locomotive/Marine	●	●	●	○	●	●	●	●	●
Light-Duty Vehicles	●	●	●	○	●	○	○	○	●
Infrastructure – Production, Dispensing, Certification	-	-	-	○	○	●	●	●	●
Engine Systems									
Ultra-Low emissions Heavy-Duty Engines	●	●	●	●	○	○	●	●	○
Alternative Fuel Medium- and Heavy-Duty Vehicles	●	●	●	●	●	●	●	●	○
Off-Road Applications	●	●	●	●	●	●	●	●	○
Fueling Infrastructure & Deployment									
Production of Renewable Natural Gas – Biowaste/Feedstock	●	●	●	●	●	●	●	○	○
Synthesis Gas to Renewable Natural Gas	●	●	●	●	●	●	●	○	○
Expansion of Infrastructure/Stations/Equipment/RNG Transition	●	●	●	●	●	●	●	●	○
Stationary Clean Fuel Technologies									
Low-Emission Stationary & Control Technologies	●	●	●	●	○	○	●	○	○
Renewable Fuels for Stationary Technologies	○	●	●	●	○	○	○	○	○
Vehicle-to-Grid or Vehicle-to-Building/Storage	●	●	●	○	○	●	○	○	●
Emission Control Technologies									
Alternative/Renewable Liquid Fuels	●	●	●	●	○	○	●	●	○
Advanced Aftertreatment Technologies	●	○	●	○	○	●	●	●	○
Lower-Emitting Lubricant Technologies	○	○	●	-	●	●	●	●	○
● Excellent ● Good ○ Satisfactory ● Poor ● Unacceptable									

Appendix E

List of Acronyms

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LIST OF ACRONYMS

AB—Assembly Bill	CVAG—Coachella Valley Association of Governments
AC—absorption chiller	CWI—Cummins Westport, Inc.
ADA—American with Disabilities Act	CY—calendar year
AER—all-electric range	DC—direct connection
AFRC—air/fuel ratio control	DCFC—direct connection fast charger
AFVs—Alternative Fuel Vehicles	DCM—dichloromethane
APCD—Air Pollution Control District	DEG—diesel equivalent gallons
AQMD—Air Quality Management District	DGE—diesel gallon equivalents
AQMP—Air Quality Management Plan	DF—deterioration factor
ARB—Air Resources Board	DME—dimethyl ether
ARRA—American Recovery & Reinvestment Act	DMS—Division of Measurement Standards
AWMA—Air & Waste Management Association	DMV—Department of Motor Vehicles
BACT—Best Available Control Technology	DOC—diesel oxidation catalysts
BET—battery electric truck	DOE—Department of Energy
BEV—battery electric vehicle	DOT—Department of Transportation
BSNOx—brake specific NOx	DPF—diesel particulate filters
BMS—battery management system	DPT3—Local Drayage Port Truck (cycle) - where 3=local (whereas 2=near-dock, etc.)
CAAP—Clean Air Action Plan	DRC—Desert Resource Center
CAFR—Comprehensive Annual Financial Report	DRI—Desert Research Institute
CaFCP—California Fuel Cell Partnership	ECM—emission control monitoring
CARB—California Air Resources Board	EDD—electric drayage demonstration
CATI—Clean Air Technology Initiative	EDTA—Electric Drive Transportation Association
CBD—Central Business District (cycle) - a Dyno test cycle for buses	EGR—exhaust gas recirculation
CCF—California Clean Fuels	EIA—Energy Information Administration
CCHP—combined cooling, heat and power	EIN—Energy Independence Now
CCV—closed crankcase ventilation	EMFAC—Emission FACtors
CDA—cylinder deactivation	EPRI—Electric Power Research Institute
CDFA/DMS—California Department of Food & Agriculture/Division of Measurement Standards	E-rEV—extended-range electric vehicles
CEC—California Energy Commission	ESD—emergency shut down
CE-CERT—College of Engineering – Center for Environmental Research and Technology	ESS—energy storage system
CEMS—continuous emission monitoring system	EV—electric vehicle
CEQA—The California Environmental Quality Act	EVSE—electric vehicle supply equipment
CFCI—Clean Fuel Connection, Inc.	FCV—fuel cell vehicle
CFD—computational fluid dynamic	FTA—Federal Transit Administration
CHBC—California Hydrogen Business Council	FTP—federal test procedures
CHE—cargo handling equipment	g/bhp-hr—grams per brake horsepower per hour
CNG—compressed natural gas	GC/MS—gas chromatography/mass spectrometry
CNGVP—California Natural Gas Vehicle Partnership	GCW—gross combination weight
CO ₂ —carbon dioxide	GCVW—gross container vehicle weight
CO—carbon monoxide	GDI—gasoline direct injection
ComZEV—Commercial Zero-Emission Vehicle	GGE—gasoline gallon equivalents
CPA—Certified Public Accountant	GGRF—Greenhouse Gas Reduction Relief Fund
CPUC—California Public Utilities Commission	GHG—Greenhouse Gas
CRDS—cavity ring-down spectroscopy	GNA—Gladstein, Neandross & Associates, LLC
CRT—continuously regenerating technology	GTL—gas to liquid
	GVWR—gross vehicle weight rating
	H&SC—California Health and Safety Code

LIST OF ACRONYMS (cont'd)

HCCI—Homogeneous Charge Combustion Ignition	NAFA—National Association of Fleet Administrators
HCNG—hydrogen-compressed natural gas (blend)	NFPA—National Fire Protection Association
HDDT—highway dynamometer driving schedule	NCP—nonconformance penalty
HD-FTP—Heavy-Duty Federal Test Procedure	NEV—neighborhood electric vehicles
HD-OBD—heavy-duty on-board diagnostics	NextSTEPS—Next Sustainable Transportation Energy Pathways
HPLC—high-performance liquid chromatography	NG/NGV—natural gas/natural gas vehicle
HT—high throughput	NH ₃ —ammonia
HTFCs—high-temperature fuel cells	NHTSA—National Highway Traffic Safety Administration
H2NIP—Hydrogen Network Investment Plan	NMHC—non-methane hydrocarbon
HTPH—high throughput pretreatment and enzymatic hydrolysis	NO—nitrogen monoxide
HyPPO—Hydrogen Progress, Priorities and Opportunities report	NO ₂ —nitrogen dioxide
Hz—Hertz	NO + NO ₂ —nitrous oxide
ICE—internal combustion engine	NOPA—Notice of Proposed Award
ICEV—internal combustion engine vehicle	NO _x —oxides of nitrogen
ICU—inverter-charger unit	NRC—National Research Council
ICTC—Interstate Clean Transportation Corridor	NREL—National Renewables Energy Laboratory
IVOC—intermediate volatility organic compound	NSPS—New Source Performance Standard
kg—kilogram	NSR—New Source Review
LACMTA—Los Angeles County Metropolitan Transit Authority	NZ—near zero
LADOT—City of Los Angeles Dept. of Transportation	OBD—On-Board Diagnostics
LADWP—Los Angeles Department of Water and Power	OCS—overhead catenary system
LCFS—Low Carbon Fuel Standard	OCTA—Orange County Transit Authority
Li—lithium ion	OEHHHA—Office of Environmental Health Hazard Assessment
LIMS—Laboratory Information Management System	OEM—original equipment manufacturer
LLNL—Lawrence Livermore National Laboratory	One-off—industry term for prototype or concept vehicle
LNG—liquefied natural gas	PAH—polyaromatic hydrocarbons
LPG—liquefied petroleum gas or propane	PbA—lead acid
LSM—linear synchronous motor	PCM—powertrain control module
LSV—low-speed vehicle	PEMFC—proton exchange membrane fuel cell
LUV—local-use vehicle	PEMS—portable emissions measurement system
LVP—low vapor pressure	PEV—plug-in electric vehicle
MATES—Multiple Air Toxics Exposure Study	PHET—plug-in hybrid electric truck
MECA—Manufacturers of Emission Controls Association	PHEV—plug-in hybrid vehicle
MOA—Memorandum of Agreement	PM—particulate matter
MPa—MegaPascal	PM _{2.5} —particulate matter ≤ 2.5 microns
MPFI—Multi-Port Fuel Injection	PM ₁₀ —particulate matter ≤ 10 microns
MPG—miles per gallon	POS—point of sale
MPGde—miles per gallon diesel equivalent	ppm—parts per million
MSRC—Mobile Source Air Pollution Reduction Review Committee	ppb—parts per billion
MSW—municipal solid wastes	PSI—Power Solutions International
MY—model year	PTR-MS—proton transfer reaction-mass spectrometry
MTA—Metropolitan Transportation Authority (Los Angeles County “Metro”)	RD&D—research, development and demonstration
NAAQS—National Ambient Air Quality Standards	RDD&D (or RD3)—research, development, demonstration and deployment
	RFP—Request for Proposal
	RFS—renewable fuel standards

LIST OF ACRONYMS (cont'd)

RI—reactive intermediates	V2B—vehicle-to-building
RNG—renewable natural gas	V2G—vehicle-to-grid
RTP/SCS—Regional Transportation Plan/Sustainable Communities Strategy	V2G/B—vehicle-to-building functionality
SAE—Society of Automotive Engineers	VMT—vehicle miles traveled
SB—Senate Bill	VOC—volatile organic compounds
SCAB—South Coast Air Basin or “Basin”	VPP—virtual power plant
SCAQMD—South Coast Air Quality Management District	WVU—West Virginia University
SCFM—standard cubic feet per minute	ZECT—Zero Emission Cargo Transport
SCE—Southern California Edison	ZEV—zero emissions vehicle
SCR—selective catalytic reduction	
SHR—Steam Hydrogasification Reaction	
SI—spark ignited	
SI-EGR—spark-ignited, stoichiometric, cooled exhaust gas recirculation	
SIP—State Implementation Plan	
SJVAPCD—San Joaquin Valley Air Pollution Control District	
SOAs—secondary organic aerosols	
SoCalGas—Southern California Gas Company (A Semptra Energy Utility)	
SULEV—super ultra-low emission vehicle	
SUV—Sports Utility Vehicle	
TAO—Technology Advancement Office	
TAP— (Ports’) Technology Advancement Program	
TC—total carbon	
TEMS—transportable emissions measurement system	
THC—total hydrocarbons	
TO—task order	
tpd—tons per day	
TRB—Transportation Research Board	
TRL—technology readiness level	
TSI—Three Squares, Inc.	
TTSI—Total Transportation Services, Inc.	
TWC—three-way catalyst	
UCR—University of California Riverside	
UCR/CE-CERT—UCR/College of Engineering/Center for Environmental Research & Technology	
UCLA—University of California Los Angeles	
UDDS—urban dynamometer driving schedule	
µg/m ³ —microgram per cubic meter	
ULEV—ultra low emission vehicle	
UPS—United Postal Service	
U.S.—United States	
U.S.EPA—United States Environmental Protection Agency	



Technology Advancement Office
Leading the way to zero and near-zero emission technologies



Background

2018 Annual Report and 2019 Plan Update

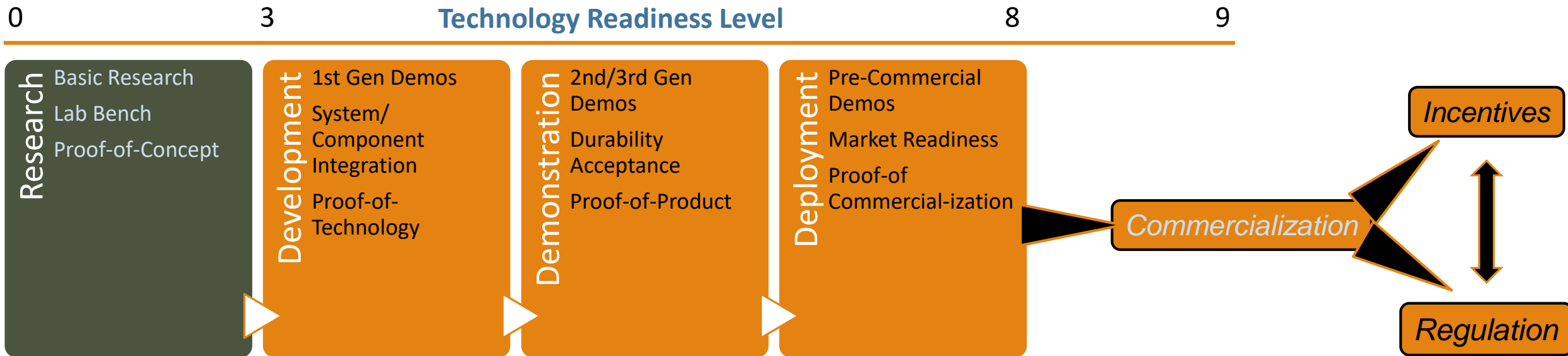
- Annual Report on Clean Fuels Program (HSC 40448.5.1)
- Technology Advancement Plan (Update) (HSC 40448.5)
- Draft 2019 Plan Update submitted to Technology Committee October 19, 2018
- Annual public hearing to approve Annual Report and adopt final Plan Update
- Submit to Legislature by March 31 every year

Input and Feedback

- Advisory group meetings
 - September 2018 and January 2019
 - Technology Advancement/Clean Fuels
 - Invited technical experts
- Meetings - agencies, industry groups, technology providers and other stakeholders
- Symposiums and conferences
 - ACT Expo (April 2018)
 - Electrification 2018 Int'l Conference (Aug 2018)
 - Calstart Symposium (Nov 2018)
- Clean tech partnerships
 - Los Angeles Cleantech Incubator's Transportation Electrification Partnership (ZE 2028 Roadmap)
 - California Fuel Cell Partnership



Clean Fuels Program - Overview



Clean Fuels Program-Core Technologies

- Hydrogen/Fuel Cell Technologies and Infrastructure
- Electric/Hybrid Technologies and Infrastructure
- Engine Systems/Technologies (ultra-low emission NG HDVs)
- Fueling Infrastructure and Deployment (NG/RNG)
- Fuels/Emissions Studies
- Stationary Clean Fuel Technologies
- Emission Control Technologies
- Health Impacts Studies
- Technology Assessment/Transfer and Outreach



2018 – Key Funding Partners

Total = \$54.5M

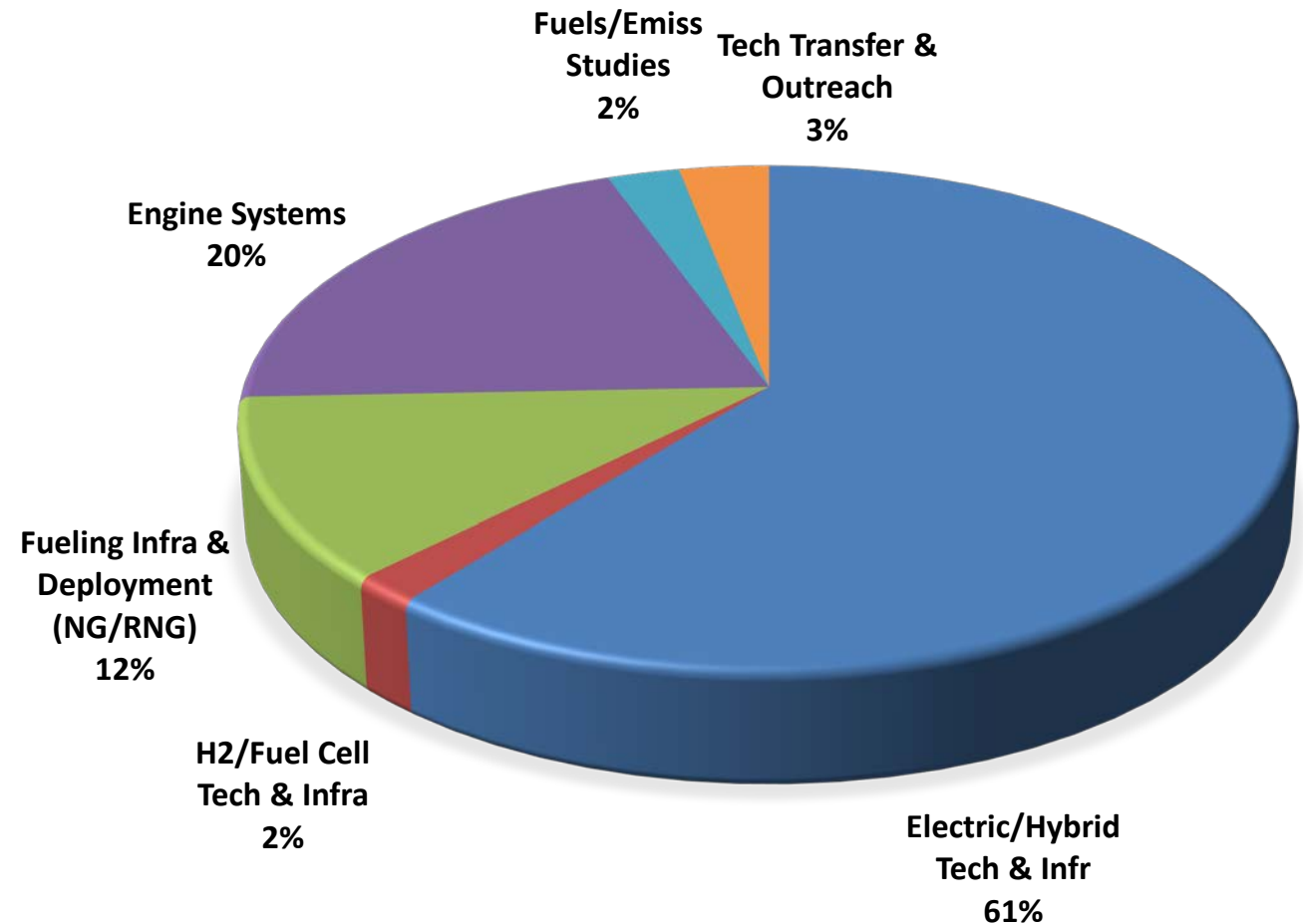


Targeted Airshed – CATI - DERA



CY 2018 Accomplishments

Distribution of Executed Contracts



- 75 – Contracts executed
 - \$27M – total contract value
 - \$12.3M revenue recognized
 - \$85M – total project costs
 - \$1:\$5+ leveraging*
- 45 - Completed projects
 - 21 research, development, demonstration and deployment projects
 - 24 technology assessment and transfer/outreach projects

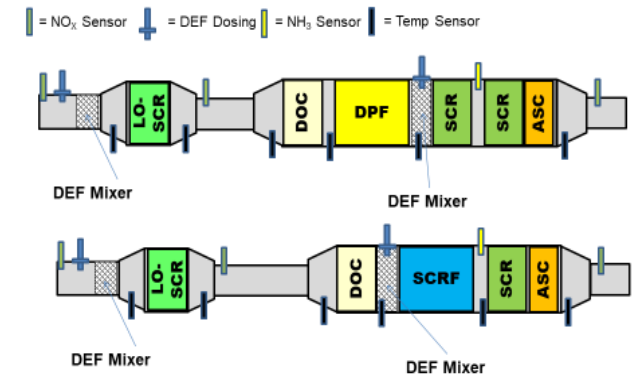
**Typical cost leveraging is \$3-\$4 per every Clean Fuels \$1*

2018 Key Contracts Executed

- Daimler Zero Emission Trucks and EV Infrastructure Project
- Goods Movement Technologies
 - Electric top-pick
 - Plug-in hybrid Class 8 trucks
- Ultra-low emissions diesel engine for on-road HDVs
- Near-zero emissions opposed piston engine
- Aftertreatment systems for large displacement diesel engines
- Battery electric switcher locomotive
- Assess air quality and GHG impacts of microgrid-based electricity

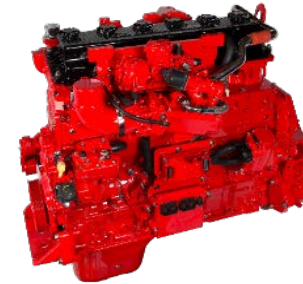


Aftertreatment System Concepts

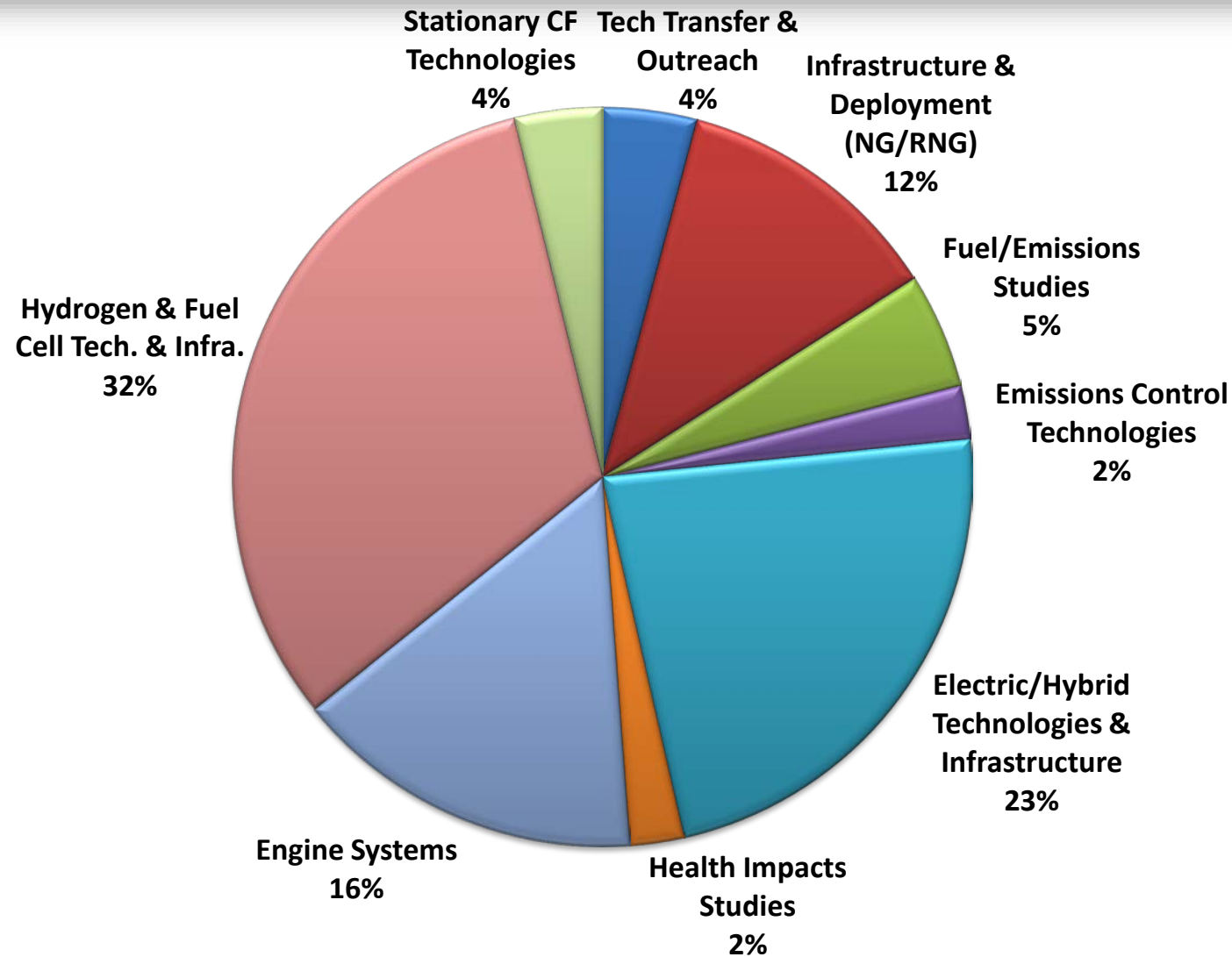


2018 Key Projects Completed

- Hydrogen technologies/infrastructure
 - Hydrogen station site evaluations for commercial sale certification
 - Analysis of renewable H2 Pathways, economics and incentives
- Engine systems
 - Ultra-low emissions 12L NG engines for on-road heavy-duty vehicles
- Electric/hybrid technologies
 - Catenary system & zero emission trucks
 - Class 8 LNG plug-in hybrid electric drayage trucks (ZECT I)



Draft 2019 Plan Update



\$16.9M

Proposed 2019 Plan Distribution

Core Technologies	2018 Plan	Draft 2019 Plan
H2/Fuel Cells Technologies & Infra.	30%	↑ 32%
Electric/Hybrids Technologies & Infra.	18%	↑ 23%
Engine Systems/Technologies	22%	16% ↓
Fueling Infra. & Deployment (NG/RNG)	10%	↑ 12%
Fuels & Emissions Studies	6%	5% ↓
Stationary Clean Fuel Technologies	4%	4% ↓
Emissions Control Technologies	3%	2% ↓
Health Impacts Studies	2%	2%
Tech Assessment/Transfer & Outreach	5%	4% ↓
	100%	100%

Development Schedule

- Technology Committee October 19, 2018
(Draft 2019 Plan Update)
- Advisory Group Review September 12, 2018
January 17, 2019
- Technology Committee February 15, 2019
- Board Approval March 1, 2019
- Due to State Legislature March 31, 2019

New Advisory Group Members

Technology Advancement Advisory Group:

- CARB: Steve Cliff, Ph.D.
- LADWP: Jodean Giese
- POLA: Chris Cannon
- POLB: Heather Tomley
- SoCalGas: Yuri Freedman
- WSPA: Phil Heirigs

Clean Fuels Advisory Group:

- Cal-EPA: John Budroe, Ph.D.
- EPRI: Mark Duvall, Ph.D.

Recommended Actions

- Approve Clean Fuels Program 2018 Annual Report
- Adopt Clean Fuels Program Plan Update for 2019
- Approve Resolution finding no duplicate projects or programs funded by other state/local agencies
- Receive and file and adopt advisory membership changes
- Direct staff to forward documents to State Legislative Analyst by March 31, 2019

BOARD MEETING DATE: March 1, 2019

AGENDA NO. 33

PROPOSAL: Approve Annual RECLAIM Audit Report for 2017 Compliance Year

SYNOPSIS: The annual report on the NO_x and SO_x RECLAIM program is prepared in accordance with Rule 2015 - Backstop Provisions. The report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the twenty-fourth year of this program. In addition, recent trends in trading future year RTCs are analyzed and presented in this report. Further, a list of facilities that did not reconcile their emissions for the 2017 Compliance Year is included with the report. This action is to approve the Annual RECLAIM Audit Report for 2017.

COMMITTEE: Stationary Source, February 15, 2019, Reviewed

RECOMMENDED ACTION:

Approve the Annual RECLAIM Audit Report for 2017 Compliance Year.

Wayne Nastri
Executive Officer

LT:DL

Background

The Board adopted the RECLAIM program on October 15, 1993 to provide a more flexible compliance program than command-and-control for specific facilities which represent SCAQMD's largest emitters of NO_x and SO_x. Although RECLAIM was developed as an alternative to command-and-control, it was designed to meet all state and federal Clean Air Act and other air quality regulations and program requirements, as well as a variety of performance criteria in order to ensure public health protection, air quality improvement, effective enforcement, and the same or lower implementation costs and job impacts. RECLAIM is what is commonly referred to as a "cap and trade" program. Facilities subject to the program were initially allocated declining annual balances of RECLAIM Trading Credits (RTCs, denominated in pounds of emissions in a specified year) based upon their historical production levels and upon emissions factors established in the RECLAIM regulation. RECLAIM facilities are required to

reconcile their emissions with their RTC holdings on a quarterly and annual basis (*i.e.*, hold RTCs equal to or greater than their emissions). These facilities have the flexibility to manage how they meet their emission goals by installing emission controls, making process changes or trading RTCs amongst themselves. RECLAIM achieves its overall emission reduction goals provided aggregate RECLAIM emissions are no more than aggregate allocations.

RECLAIM Rule 2015 - Backstop Provisions requires, staff conduct annual program audits to assess various aspects of the program and to verify that program objectives are met. Staff has completed audits of facility records and completed the annual audit of the RECLAIM program for Compliance Year 2017 (which encompasses the time period for Cycle 1 from January 1, 2017 to December 31, 2017 and for Cycle 2 from July 1, 2017 to June 30, 2018). Based on audited emissions in this report and previous annual reports, staff has determined that RECLAIM met its emissions goals for Compliance Year 2017, as well as for all previous compliance years with the only exception of NO_x emissions in Compliance Year 2000. For that year, NO_x emissions exceeded programmatic allocations (by 11%) primarily due to emissions from electric generating facilities during the California energy crisis. For Compliance Year 2017, audited NO_x emissions were 19% less than programmatic NO_x allocations and audited SO_x emissions were 17% less than programmatic SO_x allocations.

Audit Findings

The audit of the RECLAIM Program's Compliance Year 2017 and trades of RTCs that occurred during calendar year 2018 show:

- ***Overall Compliance*** – Audited NO_x and SO_x emissions from RECLAIM facilities were significantly below programmatic allocations.
- ***Universe*** – The RECLAIM universe consisted of 262 facilities as of June 30, 2017. No new facilities were included, no facilities were excluded, and four facilities in the RECLAIM universe shut down during Compliance Year 2017. Thus, 258 facilities were in the RECLAIM universe on June 30, 2018, the end of Compliance Year 2017.

Of the four facilities that shut down, one facility ceased operations, consolidating its operations with a plant outside of the region. The second facility ceased operations citing that their power purchase contract was not renewed, and as a result, it was closed and decommissioned. The third facility shut down, claiming changing market conditions with decreased demand for its product. The fourth facility attributed RECLAIM as part of the causes for its shutdown and claimed that its small size could not guarantee compliance with the recordkeeping, reporting, and audit requirements of the RECLAIM program, which they characterized as extreme. All four facilities permanently ceasing operations were in NO_x RECLAIM.

- Facility Compliance** – The vast majority of RECLAIM facilities complied with their allocations during the 2017 compliance year (95% of NO_x facilities and 90% of SO_x facilities). Fifteen facilities (slightly over five percent of total facilities) exceeded their allocations (12 facilities exceeded their NO_x allocations, and three facilities exceeded their NO_x and SO_x allocations) during Compliance Year 2017. The 15 facilities that exceeded their NO_x allocations had total NO_x emissions of 565.3 tons and did not have adequate allocations to offset 164.0 of those tons. The exceedances represent 1.83% of total RECLAIM NO_x universe allocations and 29.0% of total NO_x emissions from the 15 facilities. The three SO_x facilities that exceeded their SO_x allocation had total SO_x emissions of 450.7 tons and did not have adequate allocations to offset 133.5 tons. This exceedance represents 5.40% of total RECLAIM SO_x universe allocations and 29.6% of total SO_x emissions from these facilities. Pursuant to Rule 2010(b)(1)(A), all 15 facilities had their respective exceedances deducted from their annual allocations for the compliance year subsequent to SCAQMD’s determination that the facilities exceeded their Compliance Year 2017 allocations.
- Job Impacts** – Based on a survey of the RECLAIM facilities, the RECLAIM program had minimal impact on employment during the 2017 compliance year, which is consistent with previous years. RECLAIM facilities reported an overall net loss of 276 jobs, representing 0.26% of their total employment. One of the four RECLAIM facilities that shut down during Compliance Year 2017 cited RECLAIM as a contributing factor to the decision to shut down. This shutdown facility reported a loss of 52 jobs. The job loss and job gain data are compiled strictly from reports submitted by RECLAIM facilities, and staff is not able to verify the accuracy of the reported job impacts data.
- Trading Activity** – The RTC trading market activity during calendar year 2018 was lower in terms of number of trades (by 8.5%), lower in volume for discrete-year (32%) and IYB (6.9%) RTCs excluding swaps, and significantly lower with respect to total value (by 43%) when compared to calendar year 2017. A total of over \$1.48 billion in RTCs has been traded since the adoption of RECLAIM, of which \$3.94 million occurred in calendar year 2018 (compared to \$6.86 million in calendar year 2017), excluding swaps.

The annual average prices of discrete-year NO_x and SO_x RTCs for Compliance Years 2017, 2018, and 2019 and infinite-year block (IYB) NO_x and SO_x RTCs traded in calendar year 2018 were below the applicable review thresholds for average RTC prices. The annual average prices of RTCs traded during calendar years 2017 and 2018 are summarized and compared to the applicable thresholds in Tables 1 and 2:

Table 1 – Average Prices for Discrete-Year RTCs Traded during Calendar Years 2017 and 2018

Year Traded	Average Price (\$/ton)				Review Thresholds (\$/ton)	
	2016 NO _x RTC	2017 NO _x RTC	2018 NO _x RTC	2019 NO _x RTC	Rule 2015 (b)(6)	Health and Safety Code §39616(f)
2017	\$2,203	\$4,182	\$10,639	None traded	\$15,000	\$45,734
2018		\$1,872	\$3,788	\$5,646		
Year Traded	2016 SO _x RTC	2017 SO _x RTC	2018 SO _x RTC	2019 SO _x RTC	Rule 2015 (b)(6)	Health and Safety Code §39616(f)
2017	\$636	\$1,386	None traded	\$4,800	\$15,000	\$32,929
2018		\$786	\$955	None traded		

Table 2 – Average Prices for IYB RTCs Traded during Calendar Years 2017 and 2018

RTCs	Average Price (\$/ton)		Review Threshold (\$/ton) [Health and Safety Code §39616(f)]
	Traded in 2017	Traded in 2018	
NO _x	\$39,673	\$13,223	\$686,014
SO _x	\$22,820	\$30,000	\$493,930

- Role of Investors** – Investors were active in the RTC market. Based on both overall trading values and volume of NO_x trades with price, investors' involvement in 2018 was comparable to calendar year 2017. However, with respect to value and volume of SO_x trades with price, investors' involvement decreased. Investors were involved in 114 of the 186 discrete NO_x trades with price, and 11 of the 17 discrete SO_x trades with price. With respect to IYB trades, investors' participation was notable with investors involved with three of the five IYB NO_x trades with price, and one of two IYB SO_x trades with price. Compared to calendar year 2017, investor holdings of total IYB NO_x RTCs increased from 3.3% to 3.8%, and decreased from 6.0% to 4.7% for IYB SO_x RTCs at the end of calendar year 2018. Investors purchase RTCs, but are not RECLAIM facilities or brokers. (Brokers typically do not purchase RTCs, but facilitate trades.)
- Other Findings** – RECLAIM also met other applicable requirements including meeting the applicable federal offset ratio under New Source Review and having no significant seasonal fluctuation in emissions. Additionally, there is no evidence that RECLAIM resulted in any increase in health impacts due to emissions of air toxics. RECLAIM facilities and non-RECLAIM facilities are subject to the same requirements for controlling air toxic emissions.

Attachments

1. Annual RECLAIM Audit Report for 2017 Compliance Year
2. Board Meeting Presentation

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Annual RECLAIM Audit Report for 2017 Compliance Year

March 1, 2019

Executive Officer

Wayne Nastri

Deputy Executive Officer

Engineering & Permitting

Laki Tisopulos, Ph.D., P.E.

Assistant Deputy Executive Officer

Engineering & Permitting

Amir Dejbakhsh

Senior Air Quality Engineering Manager

RECLAIM Administration, Refinery Permitting

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William Wong, Principal Deputy District Counsel

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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Speaker of the Assembly
Appointee

Vice Chairman: Dr. Clark E. Parker Sr.
Senate Rules Committee
Appointee

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Supervisor, Fifth District
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Council Member, Wildomar
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County of Los Angeles

Joseph K. Lyou, Ph.D.
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County of Riverside

Dwight Robinson
Council Member, Lake Forest
Cities of Orange County

Janice Rutherford
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER

Wayne Nastri

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LIST OF ABBREVIATIONS

AAQS	Ambient Air Quality Standards
ACEMS	Alternative Continuous Emissions Monitoring System(s)
AER	Annual Emission Report
APEP	Annual Permit Emissions Program
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BARCT	Best Available Retrofit Control Technology
CAA	Clean Air Act
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEMS	Continuous Emissions Monitoring System(s)
CEQA	California Environmental Quality Act
CGA	Cylinder Gas Audit
CPMS	Continuous Process Monitoring System(s)
EDR	Electronic Data Reporting
ERC	Emission Reduction Credit
GHG	Greenhouse Gas
IYB RTC	Infinite-Year Block RECLAIM Trading Credit
LAER	Lowest Achievable Emission Rate
LAP	Laboratory Approval Program
MDP	Missing Data Procedures
MRR	Monitoring, Reporting and Recordkeeping
MSERC	Mobile Source Emission Reduction Credit
NAAQS	National Ambient Air Quality Standards
NNI	No Net Increase
NOx	Oxides of Nitrogen
NSR	New Source Review
ODC	Ozone Depleting Compound
OEHHA	Office of Environmental Health Hazard Assessment
QCER	Quarterly Certification of Emissions Report
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RECLAIM	REgional CLean Air Incentives Market
RTC	RECLAIM Trading Credit
RTU	Remote Terminal Unit
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SOx	Oxides of Sulfur
TAC	Toxic Air Contaminant
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WATERS	Web Access To Electronic Reporting System

EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (SCAQMD) Governing Board adopted the REgional CLean Air Incentives Market (RECLAIM) program on October 15, 1993. The RECLAIM program represented a significant departure from traditional command-and-control regulations. RECLAIM's objective is to provide facilities with added flexibility in meeting emissions reduction requirements while lowering the cost of compliance. This is accomplished by establishing facility-specific emissions reduction targets without being prescriptive regarding the method of attaining compliance with the targets. Each facility may determine for itself the most cost-effective approach to reducing emissions, including reducing emissions at their facility, and/or purchasing RECLAIM Trading Credits (RTCs) from other RECLAIM facilities, or from other RTC holders.

Rule 2015 - Backstop Provisions includes provisions for annual program audits focusing on specific topics, as well as a one-time comprehensive audit of the program's first three years, to ensure that RECLAIM is meeting all state and federal requirements and other performance criteria. Rule 2015 also provides backstop measures if the specific criteria are not met. This report constitutes the Rule 2015 annual program audit report for Compliance Year 2017 (January 1 through December 31, 2017 for Cycle 1 and July 1, 2017 through June 30, 2018 for Cycle 2 facilities). This annual audit report covers activities for the twenty-fourth year of the program.

Chapter 1: RECLAIM Universe

When RECLAIM was adopted in October 1993, a total of 394 facilities were identified as the initial "universe" of sources subject to the requirements of RECLAIM. From program adoption through June 30, 2017, the overall changes in RECLAIM participants were 134 facilities included into the program, 71 facilities excluded from the program, and 195 facilities ceased operation. Thus, the RECLAIM universe consisted of 262 active facilities at the end of Compliance Year 2016 (December 31, 2016 for Cycle 1 facilities and June 30, 2017 for Cycle 2 facilities). During Compliance Year 2017 (January 1, 2017 through December 31, 2017 for Cycle 1 facilities and July 1, 2017 through June 30, 2018 for Cycle 2 facilities), no facilities were included into the RECLAIM universe, no facilities were excluded, and four facilities (all in the NOx universe) shut down and are no longer in the active RECLAIM universe. These changes resulted in a net decrease of four facilities in the universe, bringing the total number of active RECLAIM facilities to 258 as of the end of Compliance Year 2017.

Chapter 2: RTC Allocations and Trading

On November 5, 2010, the Governing Board adopted amendments to SOx RECLAIM to phase in SOx reductions beginning in Compliance Year 2013 and full implementation in Compliance Year 2019 and beyond. The amendments will result in an overall reduction of 48.4% (or 5.7 tons/day) in SOx allocations when fully implemented (Compliance Year 2019 and beyond). For Compliance Year

2017, the fifth year of implementation, the SOx allocation supply was reduced by 43% (or 5.0 tons/day) to 2,474 tons. On December 4, 2015, the Governing Board adopted amendments to NOx RECLAIM to phase in additional NOx reductions which began in Compliance Year 2016 and continue through Compliance Year 2022. The amendment will result in an overall NOx reduction of 45% (or 12 tons/day) when fully implemented for Compliance Year 2022 and beyond. For Compliance Year 2017, the second year of implementation, the NOx allocation supply was reduced by 7.4 % (or 2 tons/day).

The overall NOx RTC supply increased by 11.0 tons and the SOx RTC supply increased by 0.1 tons during Compliance Year 2017. These changes were due to allocation adjustments for clean fuel production pursuant to Rule 2002(c)(12).

Since the inception of the RECLAIM program in 1994, a total value of over \$1.48 billion dollars has been traded in the RTC trading market, excluding swap trades. During calendar year 2018, there were 280 RTC trade registrations with a total value of \$3.94 million traded, excluding the values reported for swap trades. RTC trades are reported to SCAQMD as either discrete-year RTC trades or infinite-year block (IYB) trades (trades that involve blocks of RTCs with a specified start year and continuing into perpetuity). In terms of volume traded in calendar year 2018, a total of 1,982 tons of discrete-year NOx RTCs, 517 tons of discrete-year SOx RTCs, 208 tons of IYB NOx RTCs and 26 tons of IYB SOx RTCs were traded excluding swap trades. The RTC trading market activity decreased during calendar year 2018 compared to calendar year 2017, in terms of number of trades (by 8.5%), in volume for discrete-year (by 32%) and for IYB RTCs excluding swaps (by 7%), and in total value excluding swaps (by 43%).

Discrete-year RTC trades with price (i.e. price >\$0.00) registered during calendar year 2018 include trades for Compliance Years 2017, 2018, 2019, and 2020 NOx RTCs, and Compliance Years 2017 and 2018 SOx RTCs, excluding swap trades. The annual average prices of discrete-year NOx RTCs traded during calendar year 2018 were \$1,872, \$3,788, \$5,646, and \$5,674 per ton for Compliance Years 2017, 2018, 2019, and 2020 RTCs, respectively. The annual average prices for discrete-year SOx RTCs traded during the same period were \$786, and \$955 per ton for Compliance Years 2017 and 2018 RTCs, respectively.

Prices for discrete-year NOx and SOx RTCs for all compliance years are still well below the \$45,734 per ton of NOx and \$32,929 per ton of SOx discrete-year RTCs pre-determined overall program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f), as well as the \$15,000 per ton threshold pursuant to Rule 2015(b)(6).

The annual average price during calendar year 2018 for IYB NOx RTCs was \$13,223 per ton and the annual average price for IYB SOx RTCs was \$30,000 per ton. Therefore, annual average IYB RTC prices did not exceed the \$686,014 per ton of IYB NOx RTCs or the \$493,930 per ton of IYB SOx RTCs pre-determined overall program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

Investors were again active in the RTC market during calendar year 2018. They were involved in 114 of the 186 discrete-year NOx trade registrations and 11 of the 17 discrete-year SOx trade registrations with price. Investors were also involved in three of the five IYB NOx and one of the two IYB SOx trades with price. Investors were involved in 64% of total value and 55% of total volume for

discrete-year NOx trades, and 61% of the total value and 60% of the total volume for discrete-year SOx trades. At the end of calendar year 2018, investors' holdings of IYB NOx RTCs were slightly higher at 3.8% of total NOx RECLAIM RTCs, while investors' holdings of IYB SOx RTCs were lower at 4.7% of the total SOx RECLAIM RTCs, compared to that of calendar year 2017.

Chapter 3: Emission Reductions Achieved

For Compliance Year 2017, aggregate NOx emissions were below total allocations by 19% and aggregate SOx emissions were below total allocations by 17%. No emissions associated with breakdowns were excluded from reconciliation with facility allocations in Compliance Year 2017. Accordingly, no mitigation is necessary to offset excluded emissions due to approved Breakdown Emission Reports. Therefore, based on audited emissions, RECLAIM achieved its targeted emission reductions for Compliance Year 2017. With respect to the Rule 2015 backstop provisions, Compliance Year 2017 aggregate NOx and SOx emissions were both well below aggregate allocations and, as such, did not trigger the requirement to review the RECLAIM program.

Chapter 4: New Source Review Activity

The annual program audit assesses New Source Review (NSR) activity from RECLAIM facilities in order to ensure that RECLAIM is complying with federal NSR requirements and state no net increase (NNI) in emissions requirements while providing flexibility to facilities in managing their operations and allowing new sources into the program. In Compliance Year 2017, a total of five NOx RECLAIM facilities had NSR NOx emission increases, and no SOx RECLAIM facilities had an NSR SOx emission increase due to expansion or modification. Consistent with all prior compliance years, there were sufficient NOx and SOx RTCs available to allow for expansion, modification, and modernization by RECLAIM facilities.

RECLAIM is required to comply with federal NSR emissions offset requirements at a 1.2-to-1 offset ratio programmatically for NOx emission increases and a 1-to-1 offset ratio for SOx emission increases on a programmatic basis. In Compliance Year 2017, RECLAIM demonstrated federal equivalency with a programmatic NOx offset ratio of 864-to-1 based on the compliance year's total unused allocations and total NSR emission increases for NOx. There were no SOx emission increases during the compliance year. RECLAIM inherently complies with the federally-required 1-to-1 SOx offset ratio for any compliance year, provided aggregate SOx emissions under RECLAIM are lower than or equal to aggregate SOx allocations for that compliance year. As shown in Chapter 3, there was no programmatic SOx exceedance during Compliance Year 2017. In fact, there was a surplus of SOx RTCs. Therefore, RECLAIM more than complied with the federally-required SOx offset ratio and further quantification of the SOx offset ratio is unnecessary. Also, the NNI is satisfied by the program's 1-to-1 offset ratio. In addition, RECLAIM requires application of, at a minimum, California Best Available Control Technology (BACT), which is at least as stringent as federal Lowest Achievable Emission Rate (LAER) for major sources. The same BACT guidelines are used to determine applicable BACT to RECLAIM and non-RECLAIM facilities.

Chapter 5: Compliance

Based on SCAQMD Compliance Year 2017 audit results, 266 of the 281 (95%) NOx RECLAIM facilities complied with their NOx allocations, and 28 of the 31 SOx facilities (90%) complied with their SOx allocations based on SCAQMD audit results. All three SOx facilities that exceeded their SOx allocations also exceeded their NOx allocations. So, fifteen facilities exceeded their allocations (12 facilities exceeded their NOx allocations, and three facilities exceeded their NOx and SOx allocations). The 15 facilities that exceeded their NOx allocations had aggregate NOx emissions of 565.3 tons and did not have adequate allocations to offset 164.0 tons (or 29.0%) of their combined emissions. The three facilities that exceeded their SOx allocations had total SOx emissions of 450.7 tons and did not have adequate allocations to offset 133.5 tons (or 29.6%). The NOx and SOx exceedance amounts are relatively small compared to the overall NOx and SOx allocations for Compliance Year 2017 (1.83% of total NOx allocations and 5.40% of total SOx allocations). The exceedances from these facilities did not impact the overall RECLAIM emission reduction goals. The overall RECLAIM NOx and SOx emission reduction targets and goals were met for Compliance Year 2017 (*i.e.*, aggregate emissions for all RECLAIM facilities were well below aggregate allocations). Pursuant to Rule 2010(b)(1)(A), these facilities had their respective exceedances deducted from their annual allocations for the compliance year subsequent to the date of SCAQMD's determination that the facilities exceeded their Compliance Year 2017 allocations.

Chapter 6: Reported Job Impacts

This chapter compiles data as reported by RECLAIM facilities in their Annual Permit Emissions Program (APEP) reports. The analysis focuses exclusively on job impacts at RECLAIM facilities and determination if those job impacts were directly attributable to RECLAIM as reported by those facilities. Additional benefits to the local economy (*e.g.*, generating jobs for consulting firms, source testing firms and CEMS vendors) attributable to the RECLAIM program, as well as factors outside of RECLAIM (*e.g.*, the prevailing economic climate), impact the job market. However, these factors are not evaluated in this report. Also, job losses and job gains are strictly based on RECLAIM facilities' reported information. SCAQMD staff is not able to independently verify the accuracy of the reported job impact information.

According to the Compliance Year 2017 employment survey data gathered from APEP reports, RECLAIM facilities reported a net loss of 276 jobs, representing 0.26% of their total employment. One of the four RECLAIM facilities that shut down or ceased operations during Compliance Year 2017 cited RECLAIM as a factor contributing to the decision to shut down. No other facility reported job losses due to RECLAIM, during Compliance Year 2017.

Chapter 7: Air Quality and Public Health Impacts

Audited RECLAIM emissions have been in an overall downward trend since the program's inception. Compliance Year 2017 NOx emissions decreased slightly (1.1%) relative to Compliance Year 2016, and Compliance Year 2017 SOx emissions were 0.9% greater than the previous year. Quarterly calendar year 2017 NOx emissions fluctuated within seven percent of the mean NOx emissions for the year. Quarterly calendar year 2017 SOx emissions fluctuated within nine

percent of the year's mean SOx emissions. There was no significant shift in seasonal emissions from the winter season to the summer season for either pollutant.

The California Clean Air Act (CCAA) required a 50% reduction in population exposure to ozone, relative to a baseline averaged over three years (1986 through 1988), by December 31, 2000. The Basin achieved the December 2000 target for ozone well before the deadline. In calendar year 2018, the per capita exposure to ozone (the average length of time each person is exposed) continued to be well below the target set for December 2000.

Air toxic health risk is primarily caused by emissions of certain volatile organic compounds (VOCs) and fine particulates, such as metals. RECLAIM facilities are subject to the same air toxic, VOC, and particulate matter regulations as other sources in the Basin. All sources are subject, where applicable, to the NSR rule for toxics (Rule 1401 and/or Rule 1401.1). In addition, new or modified sources with NOx or SOx emission increases are required to be equipped with BACT, which minimizes to the extent feasible the increase of NOx and SOx emissions. RECLAIM and non-RECLAIM facilities that emit toxic air contaminants are required to report those emissions to SCAQMD. Those emissions reports are used to identify candidates for the Toxics Hot Spots program (AB2588). This program requires emission inventories and, depending on the type and amount of emissions, facilities may be required to do public notice and/or prepare and implement a plan to reduce emissions. There is no evidence that RECLAIM has caused or allowed higher toxic risk in areas adjacent to RECLAIM facilities, than would occur under command-and-control, because RECLAIM facilities must comply with the same toxics rules as non-RECLAIM facilities.

INTRODUCTION

The South Coast Air Quality Management District (SCAQMD) REgional CLean Air Incentives Market (RECLAIM) program was adopted in October 1993 and replaced certain command-and-control rules regarding oxides of nitrogen (NO_x) and oxides of sulfur (SO_x) with a new market incentives program for facilities that meet the inclusion criteria. The goals of RECLAIM are to provide facilities with added flexibility in meeting emissions reduction requirements while lowering the cost of compliance. The RECLAIM program was designed to meet all state and federal Clean Air Act (CAA) and other air quality regulations and program requirements, as well as various other performance criteria, such as equivalent or better air quality improvement, enforcement, implementation costs, job impacts, and no adverse public health impacts.

Since RECLAIM represents a significant change from traditional command-and-control regulations, RECLAIM rules include provisions for program audits in order to verify that the RECLAIM objectives are being met. The rules provide for a comprehensive audit of the first three years of program implementation and for annual program audits. The audit results are used to help determine whether any program modifications are appropriate. SCAQMD staff has completed the initial tri-annual program audit and each individual annual program audit report through the 2017 Compliance Year Audit.

This report presents the annual program audit and progress report of RECLAIM's twenty-third compliance year (January 1 through December 31, 2017 for Cycle 1 and July 1, 2017 through June 30, 2018 for Cycle 2 RECLAIM facilities), also known as Compliance Year 2017. As required by Rule 2015(b)(1) – Annual Audits, this audit assesses:

- Emission reductions;
- Per capita exposure to air pollution;
- Facilities permanently ceasing operation of all sources;
- Job impacts;
- Annual average price of each type of RECLAIM Trading Credit (RTC);
- Availability of RTCs;
- Toxic risk reductions;
- New Source Review permitting activity;
- Compliance issues, including a list of facilities that were unable to reconcile emissions for that compliance year;
- Emission trends/seasonal fluctuations;
- Emission control requirement impacts on stationary sources in the program compared to other stationary sources identified in the Air Quality Management Plan (AQMP); and
- Emissions associated with equipment breakdowns.

The annual program audit report is organized into the following chapters:

1. ***RECLAIM Universe***
This chapter discusses summarizes changes to the universe of RECLAIM sources that occurred up until July 1, 2017 (covered under the Annual RECLAIM Audit Report for 2016 Compliance Year), then discusses changes to the RECLAIM universe of sources in detail through the end of Compliance Year 2017.
2. ***RTC Allocations and Trading***
This chapter summarizes changes in emissions allocations in the RECLAIM universe, RTC supply and RTC trading activity, annual average prices, availability of RTCs, and market participants.
3. ***Emission Reductions Achieved***
This chapter assesses emissions trends and progress towards emission reduction goals for RECLAIM sources, emissions associated with equipment breakdowns, and emissions control requirement impacts on RECLAIM sources compared to other stationary sources. It also discusses the latest amendments to the RECLAIM program.
4. ***New Source Review Activity***
This chapter summarizes New Source Review (NSR) activities at RECLAIM facilities.
5. ***Compliance***
This chapter discusses compliance activities and the compliance status of RECLAIM facilities. It also evaluates the effectiveness of SCAQMD's compliance program, as well as the monitoring, reporting, and recordkeeping (MRR) protocols for NOx and SOx.
6. ***Reported Job Impacts***
This chapter addresses job impacts and facilities permanently ceasing operation of all emission sources.
7. ***Air Quality and Public Health Impacts***
This chapter discusses air quality trends in the South Coast Air Basin, seasonal emission trends for RECLAIM sources, per capita exposure to air pollution, and the toxic impacts of RECLAIM sources.

CHAPTER 1

RECLAIM UNIVERSE

Summary

When RECLAIM was adopted in October 1993, a total of 394 facilities were identified as the initial “universe” of sources subject to the requirements of RECLAIM. From program adoption through June 30, 2017, the overall changes in RECLAIM participants were 134 facilities included into the program, 71 facilities excluded from the program, and 195 facilities ceased operation. Thus, the RECLAIM universe consisted of 262 active facilities at the end of Compliance Year 2016 (December 31, 2016 for Cycle 1 facilities and June 30, 2017 for Cycle 2 facilities). During Compliance Year 2017 (January 1, 2017 through December 31, 2017 for Cycle 1 facilities and July 1, 2017 through June 30, 2018 for Cycle 2 facilities), no facilities were included into the RECLAIM universe, no facilities were excluded, and four facilities (all in the NOx universe) shut down and are no longer in the active RECLAIM universe. These changes resulted in a net decrease of four facilities in the universe, bringing the total number of active RECLAIM facilities to 258 as of the end of Compliance Year 2017.

Background

The RECLAIM program replaced the traditional “command-and-control” rules for a defined list of facilities participating in the program (the RECLAIM “universe”). The criteria for inclusion in the RECLAIM program are specified in Rule 2001 – Applicability. Facilities are generally subject to RECLAIM if they have NOx or SOx reported emissions greater than or equal to four tons per year in 1990 or any subsequent year. However, certain facilities are categorically excluded from RECLAIM. The categorically excluded facilities include dry cleaners; restaurants; police and fire fighting facilities; construction and operation of landfill gas control, landfill gas processing or landfill gas energy facilities; public transit facilities, potable water delivery operations; facilities that converted all sources to operate on electric power prior to October 1993; and facilities, other than electric generating facilities established on or after January 1, 2001, located in the Riverside County portions of the Mojave Desert Air Basin or the Salton Sea Air Basin.

Other categories of facilities are not automatically included but do have the option to enter the program. These categories include electric utilities (exemption only for the SOx program); equipment rental facilities; facilities possessing solely “various locations” permits; schools or universities; portions of facilities conducting research operations; ski resorts; prisons; hospitals; publicly-owned municipal waste-to-energy facilities; publically-owned sewage treatment facilities operating consistent with an approved regional growth plan; electrical power generating systems owned and operated by the Cities of Burbank, Glendale, or Pasadena or their successors; facilities on San Clemente Island; agricultural facilities; and electric generating facilities that are new on or after January 1, 2001 and located in the Riverside County portions of the Mojave Desert Air Basin or the Salton Sea Air Basin. An initial universe of 394 RECLAIM facilities was developed using the inclusion criteria initially adopted in the

RECLAIM program based on 1990, 1991 and 1992 facility reported emissions data.

A facility that is not in a category that is specifically excluded from the program may voluntarily join RECLAIM regardless of its emission level. Additionally, a facility may be required to enter the RECLAIM universe if:

- It increases its NO_x and/or SO_x emissions from permitted sources above the four ton per year threshold; or
- It ceases to be categorically excluded and its reported NO_x and/or SO_x emissions are greater than or equal to four tons per year; or
- It is determined by SCAQMD staff to meet the applicability requirements of RECLAIM, but was initially misclassified as not subject to RECLAIM.

At the time of joining RECLAIM, each RECLAIM facility is issued an annually declining allocation of emission credits (“RECLAIM Trading Credits” or “RTCs”) based on its historic production level (if the facility existed prior to January 1, 1993), external offsets it previously provided, and any Emission Reduction Credits (ERCs) generated at and held by the facility. Each RECLAIM facility’s RTC holdings constitute an annual emissions budget. RTCs may be bought or sold as the facility deems appropriate (see Chapter 2 – RTC Allocations and Trading).

Up until March 2017, staff has conducted a process of identifying facilities that are to be included in RECLAIM pursuant to Rule 2001(b) – Criteria for Inclusion in RECLAIM. As part of the adoption Resolution of the Final 2016 AQMP in March of 2017, staff was directed to modify Control Measure CMB-05 – Further NO_x Reductions from RECLAIM Assessment to achieve an additional five tons per day NO_x emission reductions as soon as feasible but no later than 2025, and to transition the RECLAIM program to a command-and-control regulatory structure requiring Best Available Retrofit Control Technology (BARCT) level controls as soon as practicable. Additionally, California State Assembly Bill (AB) 617, approved in July 2017, required an expedited schedule for implementing BARCT at cap-and-trade facilities, under which many RECLAIM facilities are also subject, and required that the implementation of BARCT be no later than December 31, 2023. On January 5, 2018, the Governing Board amended two rules, Rule 2001 – Applicability, and Rule 2002 – Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x), to initiate the transition of the NO_x and SO_x RECLAIM program to a command-and-control regulatory structure as soon as practicable.

Universe Changes

In the early years of the RECLAIM program, some facilities initially identified for inclusion were excluded upon determination that they did not meet the criteria for inclusion (e.g., some facilities that had reported emissions from permitted sources above four tons in a year were determined to have over-reported their emissions and subsequently submitted corrected emissions reports reflecting emissions from permitted sources below four tons per year). Additionally, some facilities that were not part of the original universe were subsequently added to the program based on the original inclusion criteria mentioned above. On the

other hand, RECLAIM facilities that permanently go out of business are removed from the active emitting RECLAIM universe.

The overall changes to the RECLAIM universe from the date of adoption (October 15, 1993) through June 30, 2017 (the last day of Compliance Year 2016 for Cycle 2 facilities) were: the inclusion of 134 facilities (including 34 facilities created by partial change of operator of existing RECLAIM facilities), the exclusion of 71 facilities, and the shutdown of 195 facilities. Thus, the net change in the RECLAIM universe from October 15, 1993 through June 30, 2016 was a decrease of 132 facilities from 394 to 262 facilities. In Compliance Year 2017 (January 1, 2017 through December 31, 2017 for Cycle 1 facilities and July 1, 2017 through June 30, 2018 for Cycle 2 facilities), no facilities were included, no facilities were excluded, and four facilities shut down. These changes brought the total number of facilities in the RECLAIM universe to 258 facilities. The Compliance Year 2017 RECLAIM universe includes 228 NO_x-only, no SO_x-only, and 30 both NO_x and SO_x RECLAIM facilities. The list of active facilities in the RECLAIM universe as of the end of Compliance Year 2017 is provided in Appendix A.

Facility Inclusions and Exclusions

As further discussed in Chapter 3 of this report, amended Rule 2001 commenced the initial steps of this transition by ceasing any future inclusions of facilities as of January 5, 2018 into NO_x and SO_x RECLAIM, whereas amended Rule 2002 established notification procedures for RECLAIM facilities for their transition out of the program and addressed the RTC holdings for facilities that will be transitioned from RECLAIM. Staff identified an initial group of 38 facilities that were potentially qualified to exit the NO_x RECLAIM program. However, they were not issued final determinations pending resolution of New Source Review provisions for facilities that have been transitioned out of RECLAIM (see further discussion in Chapter 3). During Compliance Year 2017 there were no facility inclusions or exclusions.

Facilities Permanently Ceasing Operations

Four RECLAIM facilities permanently ceased operations in Compliance Year 2017. One facility consolidated its operations with a plant in Georgia. One facility ceased operations citing that their power purchase contract had not been renewed, and as a result, was closed and decommissioned. Another facility shut down due to changing market conditions with decreased demand for its product. The last facility shut down and attributed RECLAIM as part of the causes for its shutdown and claimed that its small size could not guarantee compliance with the recordkeeping, reporting, and audit requirements of the RECLAIM program, which they characterized as “extreme”. All of the facilities permanently ceasing operations were in NO_x RECLAIM. Appendix C lists these facilities and provides brief descriptions of the reported reasons for their closures.

The above mentioned changes to the RECLAIM universe resulted in a net decrease of four facilities in the RECLAIM universe during Compliance Year 2017. Table 1-1 summarizes overall changes in the RECLAIM universe between the start of the program and end of Compliance Year 2017 (December 31, 2017 for Cycle 1 facilities and June 30, 2018 for Cycle 2 facilities). Changes to the

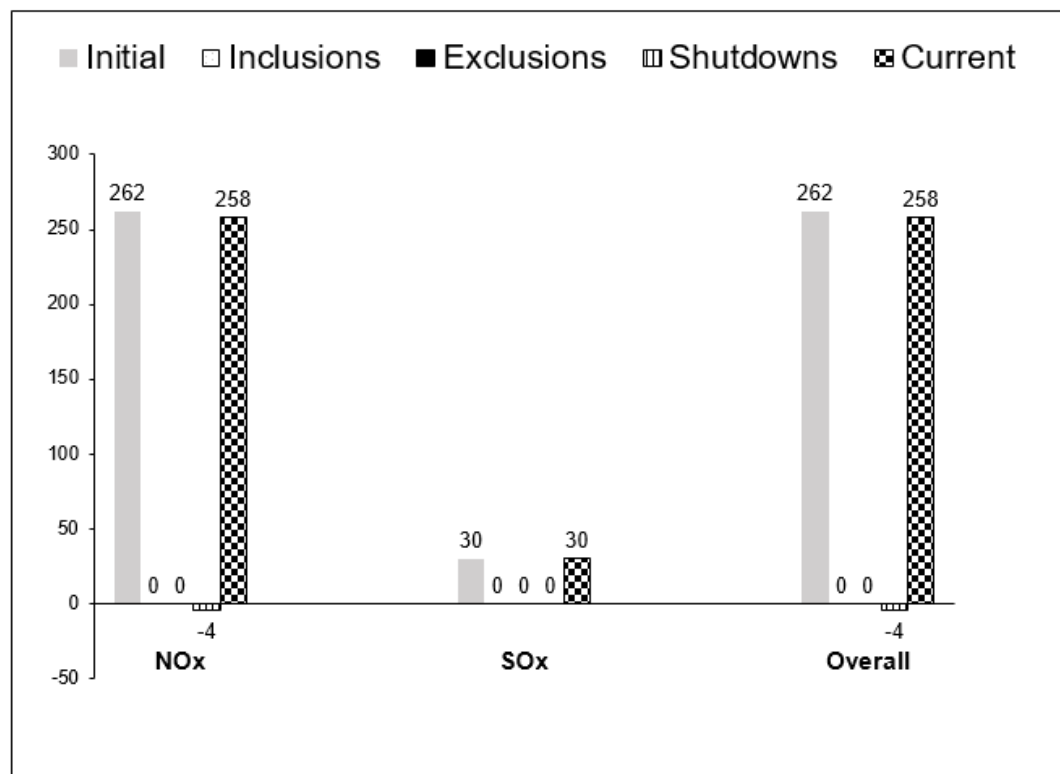
RECLAIM universe that occurred in Compliance Year 2017 are illustrated in Figure 1-1.

Table 1-1
RECLAIM Universe Changes

	NOx Facilities	SOx Facilities	Total* Facilities
Universe – October 15, 1993 (Start of Program)	392	41	394
Inclusions – October 15, 1993 through Compliance Year 2016	134	13	134
Exclusions – October 15, 1993 through Compliance Year 2016	-70	-4	-71
Shutdowns – October 15, 1993 through Compliance Year 2016	-194	-20	-195
Universe – June 30, 2017	262	30	262
Inclusions – Compliance Year 2017	0	0	0
Exclusions – Compliance Year 2017	0	0	0
Shutdowns – Compliance Year 2017	-4	0	-4
Universe – End of Compliance Year 2017	258	30	258

* "Total Facilities" is not the sum of NOx and SOx facilities due to the overlap of some facilities being in both the NOx and SOx universes.

Figure 1-1
Universe Changes in Compliance Year 2017



CHAPTER 2

RTC ALLOCATIONS AND TRADING

Summary

On November 5, 2010, the Governing Board adopted amendments to SOx RECLAIM to phase in SOx reductions beginning in Compliance Year 2013 and full implementation in Compliance Year 2019 and beyond. The amendments will result in an overall reduction of 48.4% (or 5.7 tons/day) in SOx allocations when fully implemented (Compliance Year 2019 and beyond). For Compliance Year 2017, the fifth year of implementation, the SOx allocation supply was reduced by 43% (or 5.0 tons/day) to 2,474 tons. On December 4, 2015, the Governing Board adopted amendments to NOx RECLAIM to phase in additional NOx reductions which began in Compliance Year 2016 and continue through Compliance Year 2022. The amendment will result in an overall NOx reduction of 45% (or 12 tons/day) when fully implemented for Compliance Year 2022 and beyond. For Compliance Year 2017, the second year of implementation, the NOx allocation supply was reduced by 7.4 % (or 2 tons/day).

The overall NOx RTC supply increased by 11.0 tons and the SOx RTC supply increased by 0.1 tons during Compliance Year 2017. These changes were due to allocation adjustments for clean fuel production pursuant to Rule 2002(c)(12).

Since the inception of the RECLAIM program in 1994, a total value of over \$1.48 billion dollars has been traded in the RTC trading market, excluding swap trades. During calendar year 2018, there were 280 RTC trade registrations with a total value of \$3.94 million traded, excluding the values reported for swap trades. RTC trades are reported to SCAQMD as either discrete-year RTC trades or infinite-year block (IYB) trades (trades that involve blocks of RTCs with a specified start year and continuing into perpetuity). In terms of volume traded in calendar year 2018, a total of 1,982 tons of discrete-year NOx RTCs, 517 tons of discrete-year SOx RTCs, 208 tons of IYB NOx RTCs and 26 tons of IYB SOx RTCs were traded excluding swap trades. The RTC trading market activity decreased during calendar year 2018 compared to calendar year 2017, in terms of number of trades (by 8.5%), in volume for discrete-year (by 32%) and for IYB RTCs excluding swaps (by 7%), and in total value excluding swaps (by 43%).

Discrete-year RTC trades with price (i.e. price >\$0.00) registered during calendar year 2018 include trades for Compliance Years 2017, 2018, 2019, and 2020 NOx RTCs, and Compliance Years 2017 and 2018 SOx RTCs, excluding swap trades. The annual average prices of discrete-year NOx RTCs traded during calendar year 2018 were \$1,872, \$3,788, \$5,646, and \$5,674 per ton for Compliance Years 2017, 2018, 2019, and 2020 RTCs, respectively. The annual average prices for discrete-year SOx RTCs traded during the same period were \$786, and \$955 per ton for Compliance Years 2017 and 2018 RTCs, respectively.

Prices for discrete-year NOx and SOx RTCs for all compliance years are still well below the \$45,734 per ton of NOx and \$32,929 per ton of SOx discrete-year RTCs pre-determined overall program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f), as well as the \$15,000 per ton threshold pursuant to Rule 2015(b)(6).

The annual average price during calendar year 2018 for IYB NOx RTCs was \$13,223 per ton and the annual average price for IYB SOx RTCs was \$30,000 per ton. Therefore, annual average IYB RTC prices did not exceed the \$686,014 per ton of IYB NOx RTCs or the \$493,930 per ton of IYB SOx RTCs pre-determined overall program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f).

Investors were again active in the RTC market during calendar year 2018. They were involved in 114 of the 186 discrete-year NOx trade registrations and 11 of the 17 discrete-year SOx trade registrations with price. Investors were also involved in three of the five IYB NOx and one of the two IYB SOx trades with price. Investors were involved in 64% of total value and 55% of total volume for discrete-year NOx trades, and 61% of the total value and 60% of the total volume for discrete-year SOx trades. At the end of calendar year 2018, investors' holdings of IYB NOx RTCs were slightly higher at 3.8% of total NOx RECLAIM RTCs, while investors' holdings of IYB SOx RTCs were lower at 4.7% of the total SOx RECLAIM RTCs, compared to that of calendar year 2017.

Background

SCAQMD issues each RECLAIM facility at the time of inclusion into RECLAIM emissions allocations for each compliance year, according to the methodology specified in Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx). For facilities that existed prior to January 1, 1993, the allocation is calculated based on each facility's historic production levels as reported to SCAQMD in its annual emission reports (AERs), NOx emission factors listed in Tables 1, 3, and 6 of Rule 2002 or SOx emission factors in Tables 2 and 4 of Rule 2002 for the appropriate equipment category, any qualified¹ external offsets previously provided by the facility, and any unused ERCs generated at and held by the facility. Facilities entering RECLAIM after 1994 are issued allocations, if eligible, for the compliance year of entry and all years after, and Compliance Year 1994 allocations (also known as the facility's "Starting Allocation") for the sole purpose of establishing New Source Review trigger level.

These allocations are issued as RTCs, denominated in pounds of NOx or SOx with a specified 12-month term. Each RTC may only be used for emissions occurring within the term of that RTC. The RECLAIM program has two staggered compliance cycles—Cycle 1 with a compliance period of January 1 through December 31 of each year, and Cycle 2 with a compliance period of July 1 of each year through June 30 of the following year. Each RECLAIM facility is assigned to either Cycle 1 or Cycle 2 and the RTCs it is issued (if any) have corresponding periods of validity.

The issuance of allocations for future years provides RECLAIM facilities guidance regarding their future emission reduction requirements. Facilities can plan their compliance strategies by reducing actual emissions or securing needed RTCs through trade registrations (or a combination of the two), based on their operational needs.

¹ Only external offsets provided at a one-to-one offset ratio after the base year used for allocation quantification purposes.

RECLAIM facilities may acquire RTCs issued for either cycle through trading and apply them to emissions, provided that the RTCs are used for emissions occurring within the RTCs' period of validity and the trades are made during the appropriate time period. RECLAIM facilities have until 30 days after the end of each of the first three quarters of each compliance year to reconcile their quarterly and year-to-date emissions, and until 60 days after the end of each compliance year to reconcile their last quarter and total annual emissions by securing adequate RTCs. Please note that, although other chapters in this report present and discuss Compliance Year 2017 data, RTC trading and price data discussed in this chapter are for calendar year 2018.

RTC Allocations and Supply

The methodology for determining RTC allocations is established by Rule 2002. According to this rule, allocations may change when the universe of RECLAIM facilities changes, emissions associated with the production of re-formulated gasoline increase or decrease, reported historical activity levels are updated, or emission factors used to determine allocations are changed. In addition to these SCAQMD-allocated RTCs, RTCs may have been generated by conversion of emissions reduction credits from mobile and area sources pursuant to approved protocols. The total RTC supply in RECLAIM is made up of all RECLAIM facilities' allocations, conversions of ERCs owned by RECLAIM and non-RECLAIM facilities², emissions associated with the production of re-formulated gasoline, and conversion of emission reduction credits from mobile sources and area sources pursuant to approved protocols. Prior to an October 7, 2016 amendment of Rule 2002, facilities that shutdown were allowed to retain all of their RTC holdings and participate in the trading market. For NO_x RECLAIM facilities listed in Tables 7 and 8 that shutdown on or after October 7, 2016, the Rule 2002 amendment established a BARCT-based RTC discounting methodology that is more closely aligned to ERC discounting methodology under command and control rules. A shutdown facility may trade future year RTCs that remain after the RTC adjustment is completed, if any. If the calculated reduction amount exceeds a facility's holdings for any future compliance year, the facility must purchase and surrender sufficient RTCs to fulfill the entire reduction requirement. This situation may result if the facility previously sold its future year allocations. The SCAQMD Governing Board may adopt additional rules that affect RTC supply. Changes in the RTC supply during Compliance Year 2017 are discussed below.

Allocations Adjustments Due to Inclusion and Exclusion of Facilities

Facilities existing prior to October 1993 and entering RECLAIM after 1994 may receive allocations just like facilities that were included at the beginning of the program. However, allocations issued for these facilities are only applicable for the compliance year of entry and forward. In addition, these facilities are issued allocations and Non-tradable/Non-usable Credits for Compliance Year 1994 for the sole purpose of establishing their starting allocation to ensure compliance with offset requirements under Rule 2005 - New Source Review for RECLAIM and the trading zone restriction to ensure net ambient air quality improvement

² The window of opportunity to convert ERCs to RTCs other than during the process of a non-RECLAIM facility entering the program closed June 30, 1994.

within the sensitive zone established by Health and Safety Code §40410.5. These Compliance Year 1994 credits are not allowed to be used to offset current emissions because they have expired. Similarly, if an existing facility that was previously included in RECLAIM is subsequently excluded because it is determined to be categorically excluded or exempt pursuant to Rule 2001(i) or to not have emitted four tons or more of NO_x or SO_x in a year, any RTCs it was issued upon entering RECLAIM are removed from the market upon its exclusion.

On January 5, 2018, the SCAQMD Governing Board amended Rule 2001 – Applicability to discontinue facility inclusions into RECLAIM. The Executive Officer could only include a facility into RECLAIM up until January 5, 2018, and no facility can elect to enter RECLAIM after January 5, 2018. No facilities were included in or excluded from the RECLAIM program in Compliance Year 2017. Therefore, there are no changes to the NO_x or SO_x RTC supplies in Compliance Year 2017 due to facility inclusions into RECLAIM or exclusions from RECLAIM.

Allocations Adjustments Due to Clean Fuel Production

Rule 2002(c)(12) – Clean Fuel Adjustment to Starting Allocation, provides refineries with RTCs to compensate for their actual emissions increases caused by the production of California Air Resources Board (CARB) Phase II reformulated gasoline. The amount of these RTCs is based on actual emissions for the subject compliance year and historical production data. The quantities of such clean fuels RTCs needed were projected based on the historical production data submitted, and qualifying refineries were issued in 2000 an aggregate baseline of 86.5 tons of NO_x and 42.3 tons of SO_x for Compliance Year 1999, 101.8 tons of NO_x and 41.4 tons of SO_x for Compliance Year 2000, and 98.4 tons of NO_x and 40.2 tons of SO_x for each subsequent Compliance Year on the basis of those projections. These refineries are required to submit, at the end of each compliance year in their Annual Permit Emissions Program (APEP) report, records to substantiate actual emission increases due solely to the production of reformulated gasoline. If actual emission increases for a subject year are different than the projected amount, the RTCs issued are adjusted accordingly (*i.e.*, excess RTCs issued are deducted if emissions were less than projected; conversely, additional RTCs are issued if emissions were higher than projected).

As a result of the amendment to Rule 2002 in January 2005 to further reduce RECLAIM NO_x allocations, the NO_x historical baseline Clean Fuel Adjustments for Compliance Year 2007 and subsequent years held by the facility were also reduced by the appropriate factors as stated in Rule 2002(f)(1)(A). On the other hand, Rule 2002(c)(12) provides refineries a Clean Fuels adjustment based on actual emissions. Therefore, each refinery is subject to an adjustment at the end of each compliance year equal to the difference between the amount of actual emission increases due solely to production of reformulated gasoline at each refinery and the amount of credits it was issued in 2000 after discounting by the factors for the corresponding compliance year. For Compliance Year 2017, 11.0 tons of NO_x RTCs (0.12% of total NO_x allocation for Compliance Year 2017 and 0.1 tons of SO_x RTCs (0.005% of total SO_x allocation for Compliance Year 2017) were added to refineries' Compliance Year 2017 RTC holdings at the end of the compliance year.

Changes in RTC Allocations Due to Activity Corrections

RECLAIM facilities' allocations are determined by their reported historical activity levels (e.g., fuel usage, material usage, or production) in their AERs. In the case where a facility's AER reported activity levels are updated within five years of the AER due date, its allocation is adjusted accordingly³. There were no changes in RTC allocations due to activity corrections in Compliance Year 2017.

Conversions of Other Types of Emission Reduction Credits

Conversions of Mobile Source Emission Reduction Credits (MSERCs) and other types of emission reduction credits, other than regular stationary source ERCs issued under Regulation XIII – New Source Review, to RTCs are allowed under Rule 2008 – Mobile Source Credits, and several programs under Regulation XVI – Mobile Source Offset Programs and Regulation XXV – Intercredit Trading. Conversion of these credits to RTCs is allowed based on the respective approved protocol specified in each rule. Currently, Rules 1610 – Old-Vehicle Scrapping and 1612 – Credits for Clean On-Road Vehicles allow the creation of MSERCs. However, there are no State Implementation Plan (SIP) approved protocols for conversion of MSERCs to RTCs. No new RTCs were issued by conversion of other types of emission reduction credits in Compliance Year 2017.

Net Changes in RTC Supplies

The changes to RTC supplies described in the above sections resulted in a net increase of 11.0 tons of NOx RTCs (0.12% of the total) and an increase of 0.1 tons of SOx RTCs (0.005% of the total) for Compliance Year 2017. Table 2-1 summarizes the changes in NOx and SOx RTC supplies that occurred in Compliance Year 2017 pursuant to Rule 2002.

Table 2-1
Changes in NOx and SOx RTC Supplies during Compliance Year 2017 (tons/year)

Source	NOx	SOx
Universe changes	0	0
Clean Fuel/Reformulated Gasoline	11.0	0.1
Activity corrections	0	0
MSERCs	0	0
Net change	11.0	0.1

Note: The data in this table represents the changes that occurred over the course of Compliance Year 2017 to the Compliance Year 2017 aggregate NOx and SOx RTC supplies originally issued pursuant to Rule 2002, not the difference between 2017 aggregate RTC supply and that for any other compliance year.

Allocation Reduction Resulting from BARCT Review

Pursuant to California Health and Safety Code §40440, SCAQMD is required to monitor the advancement in BARCT and periodically re-assess the RECLAIM program to ensure that RECLAIM achieves equivalent emission reductions to the

³ Pursuant to Rule 2002(b)(5) as amended on December 4, 2015, any AERs (including corrections) submitted more than five years after the original due date are not considered in the RTC quantification process.

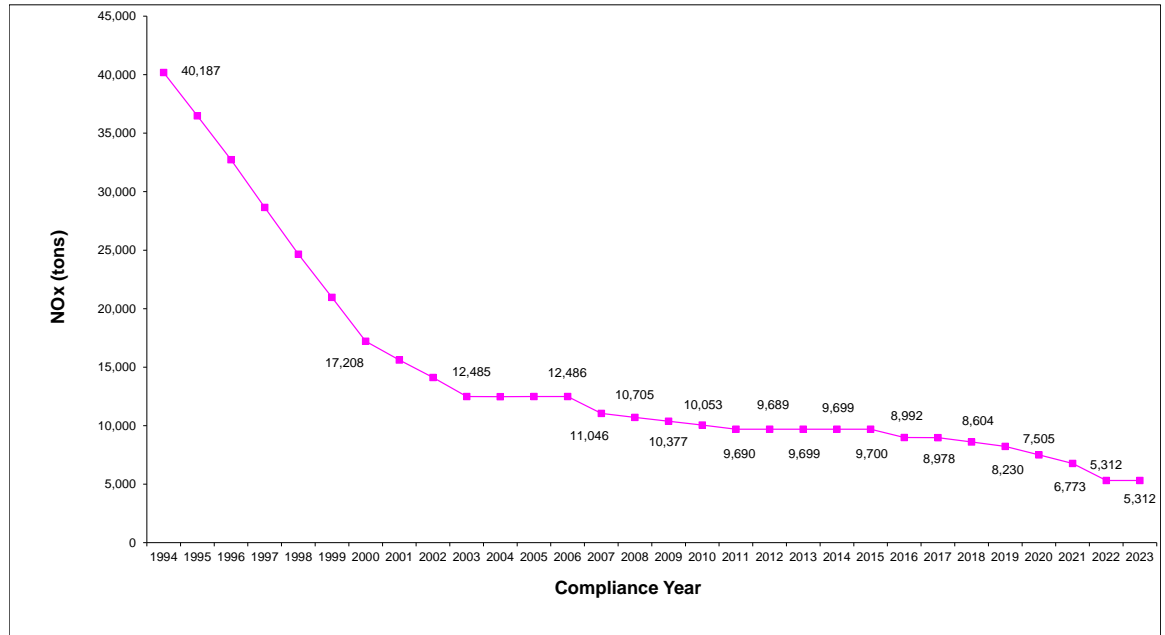
command-and-control BARCT rules it subsumes. This assessment is done periodically as part of AQMP development. This process resulted in 2003 AQMP Control Measure #2003 CMB-10 – Additional NO_x Reductions for RECLAIM (NO_x) calling for additional NO_x reductions from RECLAIM sources. SCAQMD staff started the rule amendment process in 2003, including a detailed analysis of control technologies that qualified as BARCT for NO_x, and held lengthy discussions with stakeholders—including regulated industry, environmental groups, the California Air Resources Board (CARB), and the United States Environmental Protection Agency (USEPA). On January 7, 2005, the Governing Board implemented CMB-10 by adopting changes to the RECLAIM program that resulted in a 22.5% reduction of NO_x allocations from all RECLAIM facilities. The reductions were phased in commencing in Compliance Year 2007 and have been fully implemented since Compliance Year 2011.

On November 5, 2010, the Governing Board adopted changes to the RECLAIM program implementing the 2007 AQMP Control Measure CMB-02 – Further SO_x Reductions for RECLAIM (SO_x). These amendments resulted in a BARCT-based overall reduction of 5.7 tons SO_x per day when fully implemented in Compliance Year 2019 (the reductions are being phased in from Compliance Year 2013 through Compliance Year 2019: 3.0 tons per day in 2013; 4.0 tons per day in years 2014, 2015, and 2016; 5.0 tons per day in 2017 and 2018; and 5.7 tons per day starting in 2019 and continuing thereafter). This reduction in SO_x is an essential part of the South Coast Air Basin's effort in attaining the federal 24-hour average PM_{2.5} standard by the year 2020.

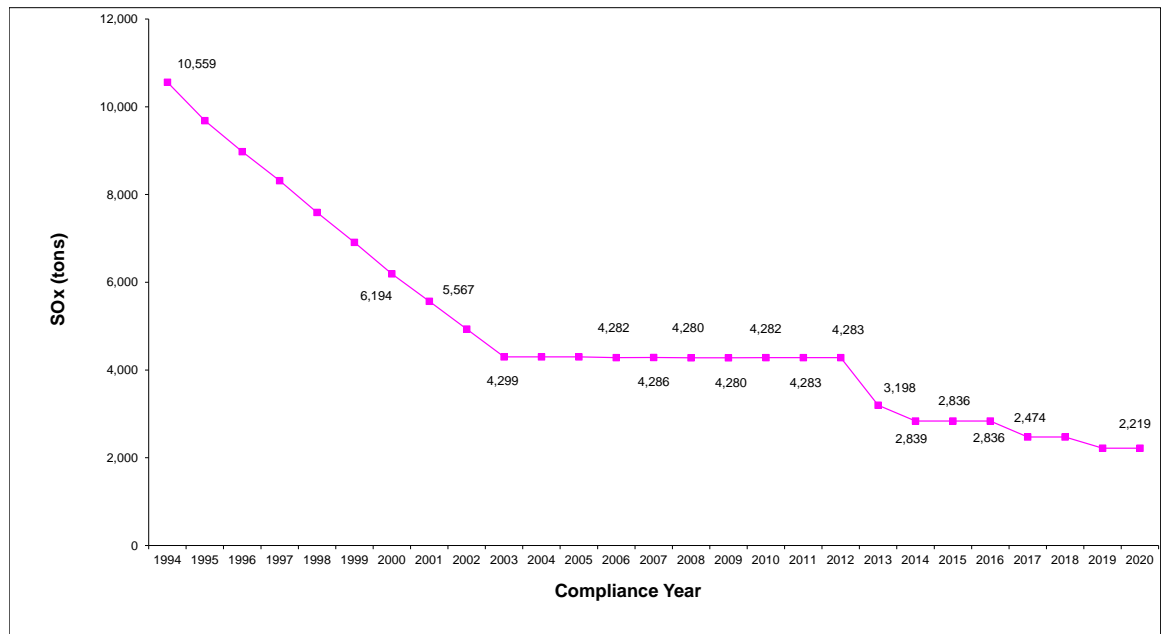
Similarly, the 2012 AQMP adopted by the Governing Board in 2012, included Control Measure CMB-01- Further NO_x Reductions for RECLAIM that identified a new group of RECLAIM NO_x emitting equipment that should be reviewed for new BARCT. The rulemaking process for the amendment to the NO_x RECLAIM program implementing CMB-01 started in 2012. On December 4, 2015, the Governing Board adopted amendments to the RECLAIM rules that resulted in an additional reduction of 12 tons of NO_x per day (45% reduction) when fully implemented in Compliance Year 2022. The reductions are being phased-in with 2 tons per day in Compliance Year 2016 and 2017, 3 tons per day in Compliance Year 2018, 4 tons per day in Compliance Year 2019, 6 tons per day in Compliance Year 2020, 8 tons per day in Compliance Year 2021 and 12 tons per day in Compliance Year 2022 and thereafter.

Figure 2-1 illustrates the total NO_x RTC supply through the end of Compliance Year 2023 incorporating all the changes discussed above. Figure 2-2 illustrates the total SO_x RTC supply through the end of Compliance Year 2020 incorporating the changes discussed.

**Figure 2-1
NOx RTC Supply**



**Figure 2-2
SOx RTC Supply**



RTC Trades

RTC Price Reporting Methodology

RTC trades are reported to SCAQMD as one of two types: discrete-year RTC transactions or infinite-year block (IYB) transactions (trades that involve blocks of RTCs with a specified start year and continuing into perpetuity). Prices for discrete-year trades are reported in terms of dollars per pound and prices for IYB trades are reported as total dollar value for total amount of IYB RTCs traded. In addition, the trading partners are required to identify any swap trades. Swap trades occur when trading partners exchange different types of RTCs. These trades maybe of equal value or different values, in which case some amount of money or credits are also included in swap trades (additional details on swap trades are discussed later in this chapter). Prices reported for swap trades are based on the agreed upon value of the trade by the participants, and do not involve exchange of funds for the total value agreed upon. As such, the reported prices for swap trades can be somewhat arbitrary, and are therefore excluded from the calculation of annual average prices. Annual average prices for discrete-year RTCs are determined by averaging prices of RTCs for each compliance year, while the annual average price for IYB RTCs are determined based on the amount of IYB RTCs (*i.e.*, the amount of RTCs in the infinite stream) regardless of the start year.

RTC Price Thresholds for Program Review

Rule 2015(b)(6) specifies that, if the annual average price of discrete-year NO_x or SO_x RTCs exceeds \$15,000 per ton, the Executive Officer will conduct an evaluation and review of the compliance and enforcement aspects of RECLAIM. The Governing Board has also established average RTC price overall program review thresholds pursuant to Health and Safety Code §39616(f). Unlike the \$15,000 per ton threshold for review of the compliance and enforcement aspects of RECLAIM, these overall program review thresholds are adjusted by CPI each year. In addition, according to Rule 2002(f)(1)(S), if the annual average price of discrete-year SO_x RTCs for any compliance year from 2017 through 2019 exceeds \$50,000 per ton, the Governing Board has the discretion to convert facilities' Nontradable/Nonusable RTCs to Tradable/Usable RTCs. Similarly, Rule 2002(f)(1)(H) specifies that in the event that the NO_x RTC prices exceed \$22,500 per ton (current compliance year credits) based on the 12-month rolling average, or exceed \$35,000 per ton (current compliance year credits) based on the 3-month rolling average calculated pursuant to subparagraph (f)(1)(E), the Executive Officer will report the determination to the Governing Board. If the Governing Board finds that the 12-month rolling average RTC price exceeds \$22,500 per ton or the 3-month rolling average RTC price exceeds \$35,000 per ton, then the Non-tradable/Non-usable NO_x RTCs, as specified in subparagraphs (f)(1)(B) and (f)(1)(C) valid for the period in which the RTC price is found to have exceeded the applicable threshold, shall be converted to Tradable/Usable NO_x RTCs upon Governing Board concurrence. For RTC trades occurring in calendar year 2018, the overall program review thresholds⁴ in 2018 dollars, pursuant to Health and Safety Code §39616(f), are \$45,734 per ton of discrete-year NO_x

⁴ These program review thresholds were adjusted using the October 2018 Consumer Price Index (CPI) due to the unavailability of the December 2018 CPI at issuance of this report.

RTCs, \$32,929 per ton of discrete-year SOx RTCs, \$686,014 per ton of IYB NOx RTCs, and \$493,930 per ton of IYB SOx RTCs.

RTC Trading Activity Excluding Swaps

Overall Trading Activity

RTC trades include discrete-year and IYB RTCs traded with prices, discrete-year and IYB RTC transfers with zero price, and discrete-year and IYB RTC swap trades. The RTC market activity in calendar year 2018 was slightly lower compared to the market activity in calendar year 2017 in terms of the number of trades. Table 2-2 compares NOx and SOx trade registrations for calendar years 2018 and 2017.

Table 2-2
Trade Registrations in Calendar Years 2018 and 2017⁵

Emittent	2018	2017⁵
NOx	254	279
SOx	26	27
Total	280	306

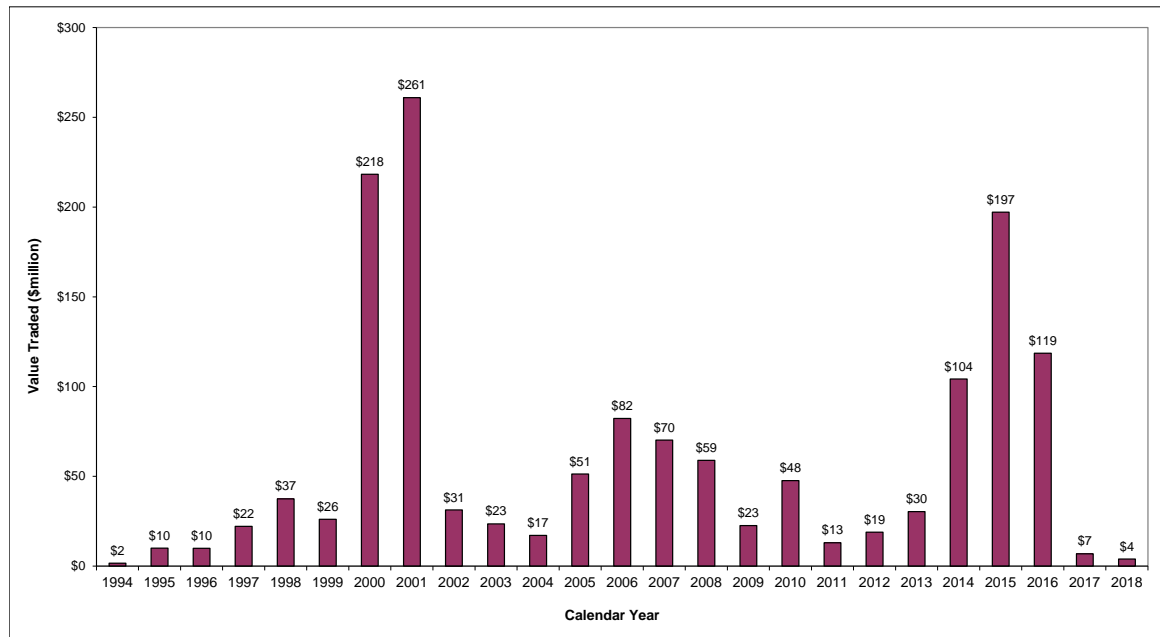
The \$3.94 million traded in calendar year 2018 was much lower compared to calendar year 2017, excluding swap trades. Table 2-3 compares the value of NOx and SOx RTCs traded in calendar years 2018 and 2017. Figure 2-3 illustrates the annual value of RTCs traded in RECLAIM since the inception of the program.

Table 2-3
Value Traded in Calendar Years 2018 and 2017, Excluding Swaps (millions of dollars)

Emittent	2018	2017
NOx	\$3.59	\$6.01
SOx	\$0.35	\$0.85
Total	\$3.94	\$6.86

⁵ There were three trades registrations postmarked late December 2017. All three trade registrations were 0 price trades and were between facilities under common ownership. Additional issues were encountered while processing these trades and delayed approvals of these trades until after the compilation of trade data for the previous RECLAIM Annual Report was completed. These RTC registrations were therefore not included in the Compliance Year 2016 RECLAIM Annual Report. These trades were collectively for 130 tons discrete NOx RTCs traded without price, and 191 tons discrete SOx RTCs traded without price. As a result, comparisons of calendar year's 2018 data (with respect to value, volume, and NOx and SOx RTCs trade registrations) with that of calendar year's 2017 data in this year's annual report are based on the updated data inclusive of these three subject trades and do not match the trade data presented in the Compliance Year 2016 RECLAIM Annual Audit Report. However, the trading prices reported in that report were unaffected.

Figure 2-3
Annual Trading Values for NOx and SOx (Excluding Swaps)



With respect to total volume traded (excluding swap trades), trades of discrete and IYB RTCs were both lower in calendar year 2018 than in calendar year 2017. Tables 2-4 and 2-5 compare 2018 and 2017 for NOx and SOx trade volume for discrete and IYB trades, respectively. Figure 2-4 summarizes overall trading activity (excluding swaps) in calendar year 2018 by pollutant. Additional information on the discrete-year and IYB trading activities, value, and volume are discussed later in this chapter.

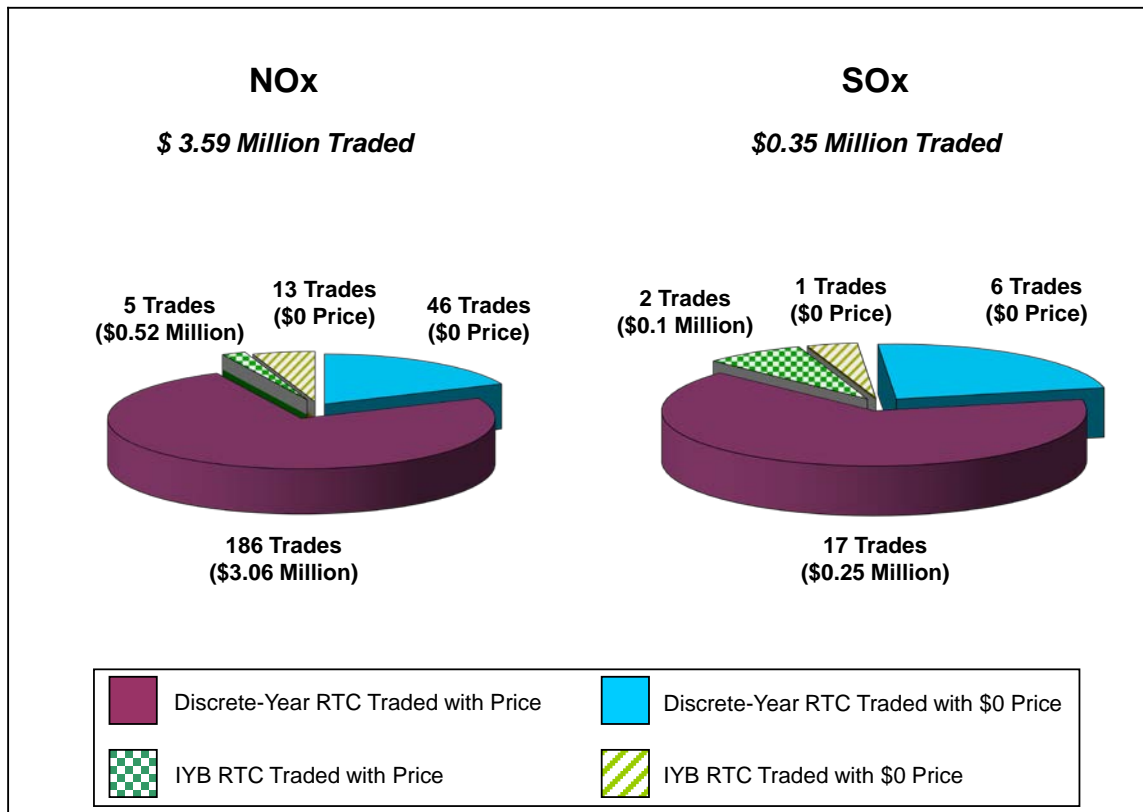
Table 2-4
Volume of Discrete RTCs Traded in Calendar Years 2018 and 2017⁵, Excluding Swaps (tons)

Emittent	2018	2017 ⁵
NOx	1,982	2,687
SOx	517	987
Total	2,499	3,671

Table 2-5
Volume of IYB RTCs Traded in Calendar Years 2018 and 2017, Excluding Swaps (tons)

Emittent	2018	2017
NOx	208	218
SOx	26	34
Total	234	252

Figure 2-4
Calendar Year 2018 Overall Trading Activity (Excluding Swaps)



There were 66 trades with zero price in calendar year 2018. RTC transfers with zero price generally occur when a seller transfers or escrows RTCs to a broker pending transfer to the purchaser with price, when there is a transfer between facilities under common operator, when a facility is retiring RTCs for a settlement agreement or pursuant to variance conditions, or when there is a transfer between facilities that have gone through a change of operator. Trades with zero price also occur when the trading parties have mutual agreements where one party provides a specific service (e.g., providing steam or other process components) for the second party. In return, the second party will transfer the RTCs necessary to offset emissions generated from the service. In calendar year 2018, the majority of trades with zero price were transfers between facilities under common ownership and facilities that underwent a change of operator.

Discrete-Year RTC Trading Activity

In calendar year 2018, there were a total of 232 discrete-year NOx RTC trades and 23 discrete-year SOx RTC trades, excluding swap trades. The trading of discrete-year NOx RTCs included RTCs for Compliance Years 2017 through 2020. The trading of discrete-year SOx RTCs included RTCs for Compliance Years 2017 through 2019. Table 2-6 compares the number of trade registrations in 2018 and 2017, both with price and with zero price.

Table 2-6
Discrete Trade Registrations in Calendar Years 2018 and 2017⁵ by Price

Year	Emittent	With Price	With 0 Price	Total
2018	NOx	186	46	232
	SOx	17	6	23
	Total	203	52	255
2017 ⁵	NOx	193	47	240
	SOx	7	12	19
	Total	200	59	259

Total discrete-year RTC trading values decreased in calendar year 2018 compared to calendar year 2017. Table 2-7 compares the total value of the discrete-year RTC trades in 2018 and 2017.

Table 2-7
Discrete RTC Value Traded in 2018 and 2017, Excluding Swaps (millions of dollars)

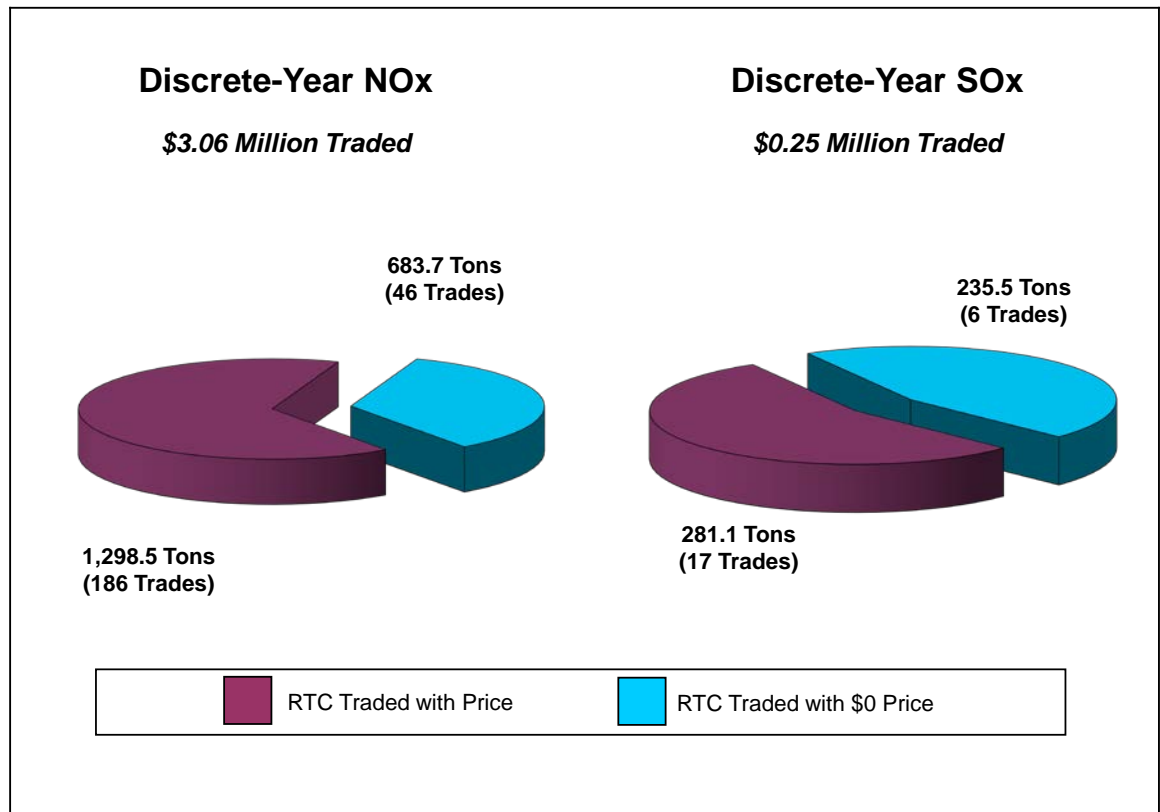
Emittent	2018	2017
NOx	\$3.06	\$4.75
SOx	\$0.25	\$0.07
Total	\$3.31	\$4.83

In calendar year 2018, the overall quantities of discrete-year NOx RTCs traded decreased compared to calendar year 2017. Table 2-8 compares the volume of NOx and SOx RTCs traded in calendar years 2018 and 2017, excluding swap trades. Figure 2-5 illustrates the trading activity of discrete-year RTCs (excluding swaps) for calendar year 2018.

Table 2-8
Discrete RTC Volume Traded in Calendar Years 2018 and 2017⁵ by Price, Excluding Swaps (tons)

Year	Emittent	With Price	With 0 Price	Total
2018	NOx	1,299	684	1,982
	SOx	281	236	517
	Total	1,580	919	2,499
2017 ⁵	NOx	1,533	1,154	2,687
	SOx	65	919	984
	Total	1,598	2,073	3,671

Figure 2-5
Calendar Year 2018 Trading Activity for Discrete-Year RTCs (Excluding Swaps)



IYB RTC Trading Activity

In calendar year 2018, there were 18 IYB NOx trades and three IYB SOx trades, excluding swaps. The IYB NOx trades included RTCs with Compliance Years 2017 through 2022 as start years, while the IYB SOx trades had RTCs with Compliance Years 2018 and 2019 as start years. Table 2-9 compares the number of RTC trade registrations from 2018 to 2017.

Table 2-9
IYB Trade Registrations in Calendar Years 2018 and 2017 by Price

Year	Emittent	With Price	With 0 Price	Total
2018	NOx	5	13	18
	SOx	2	1	3
	Total	7	14	21
2017	NOx	6	24	30
	SOx	4	0	4
	Total	10	24	34

Total IYB RTC trade values decreased in calendar year 2018 compared to calendar year 2017. Table 2-10 compares the NOx and SOx IYB RTC trade values in calendar years 2018 and 2017.

Table 2-10
IYB RTC Value Traded in 2018 and 2017, Excluding Swaps (millions of dollars)

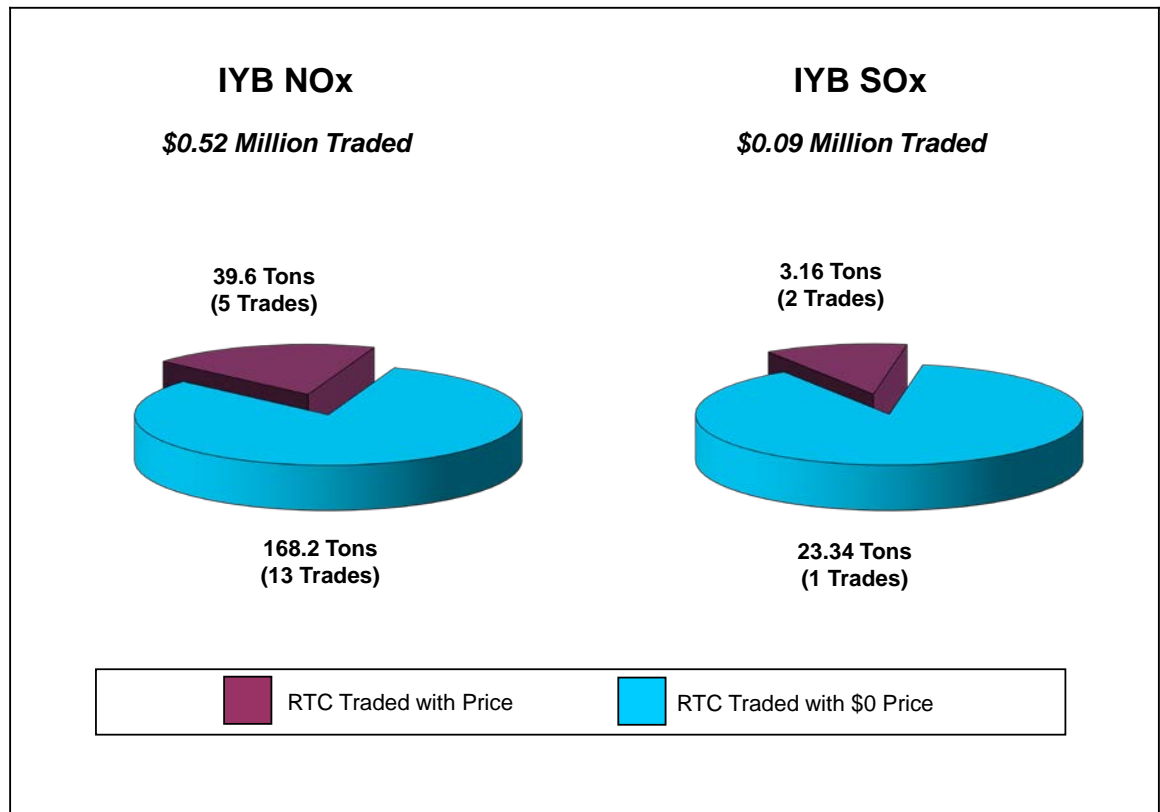
Emittent	2018	2017
NOx	\$0.52	\$1.26
SOx	\$0.09	\$0.77
Total	\$0.62	\$2.07

In calendar year 2018, the total volume of RTCs traded (excluding swap trades) decreased significantly compared to calendar year 2017. Table 2-11 compares the NOx and SOx IYB trade volumes in calendar years 2018 and 2017. As described earlier, the majority of transfers with zero price were between facilities under common ownership and facilities that had a change of operator. Figure 2-6 illustrates the calendar year 2018 IYB RTC trading activity excluding swap trades.

Table 2-11
IYB RTC Volume Traded in Calendar Years 2018 and 2017 by Price, Excluding Swaps (tons)

Year	Emittent	With Price	With 0 Price	Total
2018	NOx	40	168	208
	SOx	3	23	26
	Total	43	192	234
2017	NOx	32	186	218
	SOx	34	0	34
	Total	66	186	252

Figure 2-6
Calendar Year 2018 Trading Activity for IYB RTCs (Excluding Swaps)



Prior to the amendment of Rule 2007 – Trading Requirements in May 2001, swap information and details of discrete-year and IYB trades were not required to be provided by trade participants. In compiling data for calendar years 1994 through part of 2001, any trade registration involving IYB RTCs was considered as a single IYB trade and swap trades were assumed to be nonexistent. Trading activity since inception of the RECLAIM program is illustrated in Figures 2-7 through 2-10 (discrete-year NOx trades, discrete-year SOx trades, IYB NOx trades, and IYB SOx trades, respectively) based on the trade reporting methodology described earlier in this report.

Figure 2-7
Discrete-Year NOx RTC Trades (Excluding Swaps)

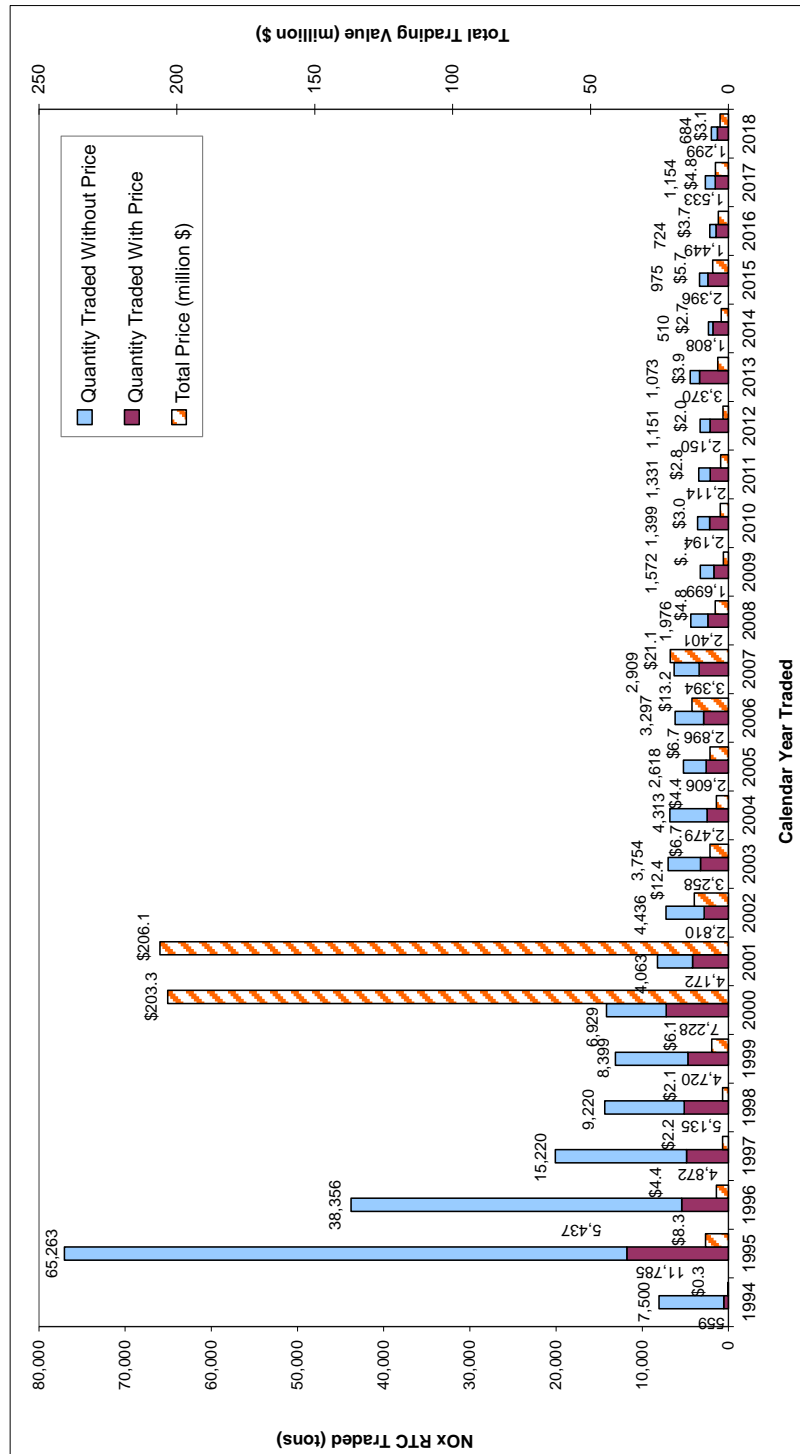


Figure 2-8
Discrete-Year SOx RTC Trades (Excluding Swaps)

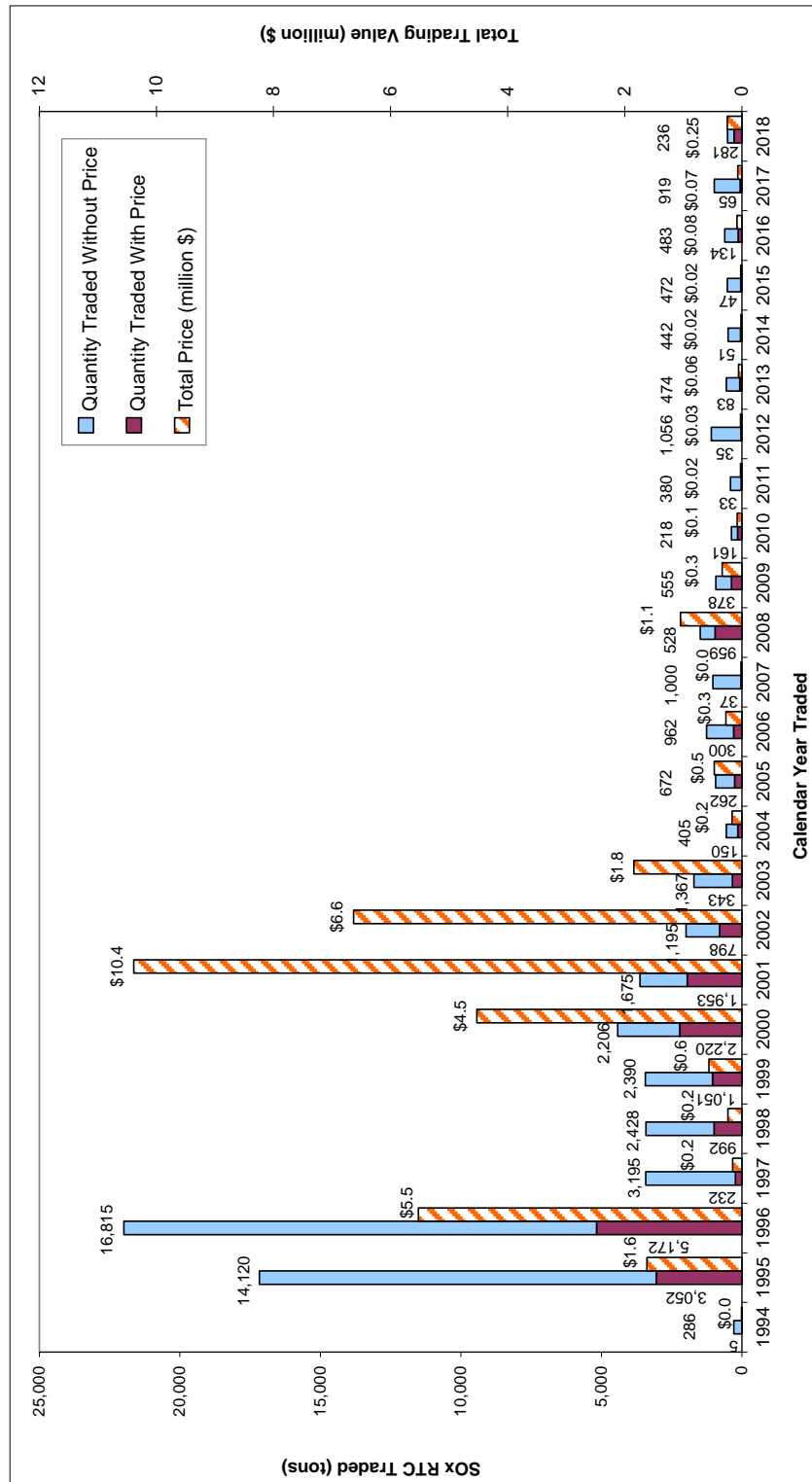


Figure 2-9
IYB NOx RTC Trades (Excluding Swaps)

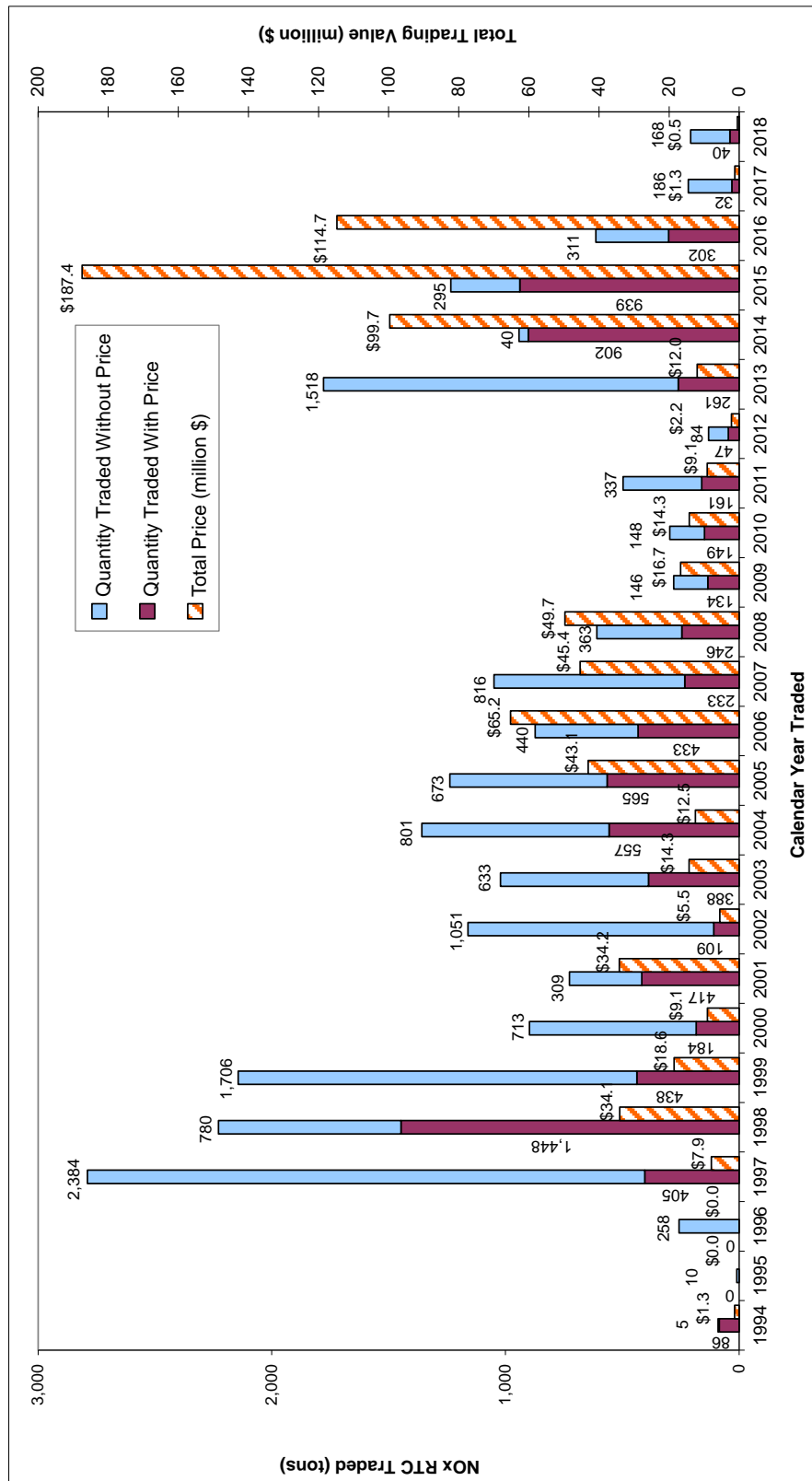
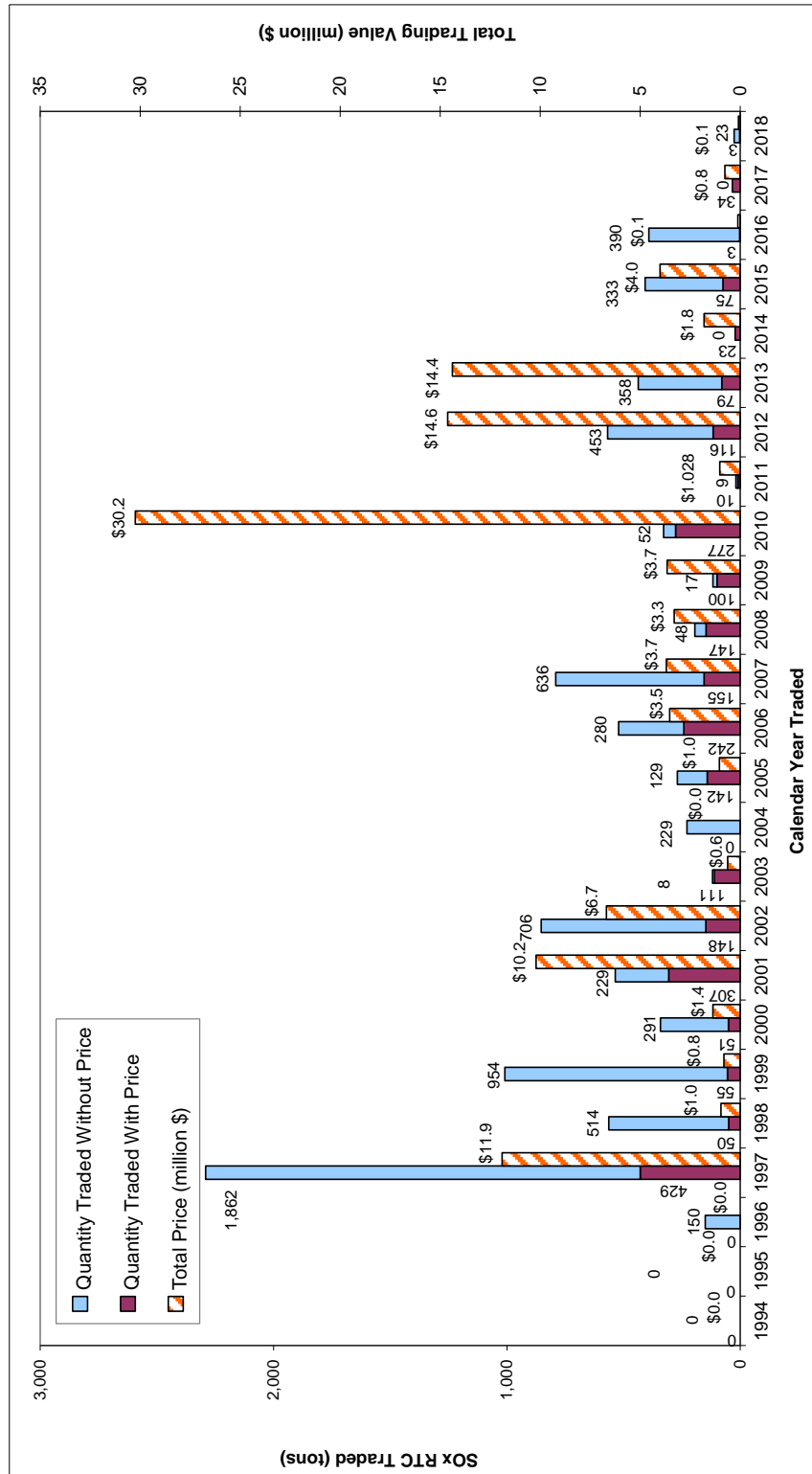


Figure 2-10
IYB SOx RTC Trades (Excluding Swaps)



Swap Trades

In addition to traditional trades of RTCs for a price, RTC swaps also occurred between trading partners. Most of the swap trades were exchanges of RTCs with different zones, cycles, expiration years, and/or pollutants. Some swaps involved a combination of RTCs and cash payment as a premium. There were also swaps of RTCs for ERCs. Trading parties swapping RTCs were required to report the agreed upon price of RTCs for each trade even though, with the exception of the above-described premiums, no money was actually exchanged. Slightly over \$0.5 million in total value was reported from RTCs that were swapped under four trade registrations in calendar year 2018. Two of the four trades involved swapping discrete coastal NO_x RTCs for discrete inland NO_x RTCs of a different cycle, and were collectively valued at a total of \$0.50 million. The total value of the other two trades was less than \$15,000. One of these two remaining trades was between a RECLAIM facility and its wholly-owned subsidiary and the other was between two facilities under common ownership. Upon further investigation, staff concluded that the transactions were not at arms-length, and that the prices reported for the transfer of RTCs for these two trades should not be regarded as market prices but “swap trades.” The swap values are based on the prices reported on the RTC trade registrations. Since RTC swap trades occur when two trading partners exchange RTCs, values reported on both trades involved in the exchange are included in the calculation of the total value reported. However, in cases where commodities other than RTCs are involved in the swap, these commodity values are not included in the above reported total value (e.g., in the case of a swap of NO_x RTCs valued at \$10,000 for another set of RTCs valued at \$8,000 together with a premium of \$2,000, the value of such a swap would have been reported at \$18,000 in Table 2-2).

For calendar years that have swap trades with large values (e.g., 2009) the inclusion of swap trades in the average trade price calculations would have resulted in calculated annual average prices dominated by swap trades, and therefore, potentially not representative of market prices actually paid for RTCs. Prices of swap trades are excluded from analysis of average trade prices because the values of the swap trades are solely based upon prices agreed upon between trading partners and do not reflect actual funds transferred. Tables 2-12 and 2-13 present the calendar years’ 2001 through 2018 RTC swaps for NO_x and SO_x, respectively.

Table 2-12
NOx Registrations Involving Swaps*

Year	Total Value (\$ millions)	IYB RTC Swapped with Price (tons)	Discrete-Year RTC Swapped with Price (tons)	Number of Swap Registrations with Price	Total Number of Swap Registrations
2001	\$24.29	6.0	612.2	71	78
2002	\$14.31	64.3	1,701.7	94	94
2003	\$7.70	69.9	1,198.1	64	64
2004	\$3.74	0	1,730.5	90	90
2005	\$3.89	18.7	885.3	53	53
2006	\$7.29	14.8	1,105.9	49	49
2007	\$4.14	0	820.0	43	49
2008	\$8.41	4.5	1,945.8	48	50
2009	\$55.76	394.2	1,188.4	37	42
2010	\$3.73	18.2	928.5	25	31
2011	\$2.00	0	775.5	25	32
2012	\$1.29	0	928.1	36	36
2013	\$2.41	11.6	1,273.5	44	44
2014	\$3.24	28.5	489.6	25	25
2015	\$6.77	31.0	317.0	15	15
2016	\$2.18	1.8	622.8	22	22
2017	\$0.87	3.6	31.0	9	9
2018	\$0.51	0	178.5	4	4

* Swaps without price are strictly transfers of RTCs between trading partners and their respective brokers. Information regarding swap trades was not required prior to May 9, 2001.

Table 2-13
SOx Registrations Involving Swaps*

Year	Total Value (\$ millions)	IYB RTC Swapped with Price (tons)	Discrete-Year RTC Swapped with Price (tons)	Number of Swap Registrations with Price	Total Number of Swap Registrations
2001	\$1.53	18.0	240.0	3	4
2002	\$6.11	26.6	408.4	30	30
2003	\$5.88	20.9	656.0	32	32
2004	\$0.39	0	161.8	13	13
2005	\$2.16	43.5	227.8	13	14
2006	\$0.02	0	24.4	2	2
2007	\$0.00	0	0	0	0
2008	\$0.40	0	197.0	5	8
2009	\$3.63	55.3	401.3	9	10
2010	\$6.89	79.4	417.0	16	18
2011	\$0.25	0	228.5	3	4
2012	\$27.01	100.0	7.5	4	4
2013	\$0.33	3.1	5.5	2	2
2014	\$0.01	0.0	14.8	1	1
2015	\$0	0.0	0	0	0
2016	\$3.68	39.6	44.2	3	3
2017	\$0.73	5.0	5.9	4	4
2018	\$0	0	0	0	0

* Swaps without price are strictly transfers of RTCs between trading partners and their respective brokers. Information regarding swap trades was not required prior to May 9, 2001.

RTC Trade Prices (Excluding Swaps)

Discrete-Year RTC Prices

Tables 2-14 and 2-15 list the annual average prices for discrete-year NOx and SOx RTCs traded from calendar years 2013 through 2018. The table shows that all annual average prices for discrete-year NOx and SOx RTCs were well below the \$45,734 per ton of NOx and \$32,929 per ton of SOx discrete-year RTCs pre-determined overall program review thresholds established by the Governing Board pursuant to Health and Safety Code §39616(f), and as well as, the \$15,000 threshold specified under Rule 2015(b)(6) for reviews of the compliance aspects of the program.

Table 2-14

Annual Average Prices for Discrete-Year NOX RTCs during Calendar Years 2013 through 2018 (price per ton)

RTC Compliance Year	Calendar Year during which RTCs Traded					
	2013	2014	2015	2016	2017	2018
2011						
2012	548.92					
2013	1,080.49	1,064.97				
2014	1,880.92	1,909.69	1,038.82			
2015	1,000.00	3,779.00	1,642.05	1,625.75		
2016	1,500.00		2,833.39	2,926.90	2,202.90	
2017	3,000.00		4,019.76	6,606.21	4,181.75	1,871.76
2018	3,800.00		6,006.11		10,639.19	3,788.31
2019			8,066.67			5,645.67
2020						5,673.91

Table 2-15

Annual Average Prices for Discrete-Year SOX RTCs during Calendar Years 2013 through 2018 (price per ton)

RTC Compliance Year	Calendar Year during which RTCs Traded					
	2013	2014	2015	2016	2017	2018
2011						
2012	291.40					
2013	485.05	377.75				
2014		400.00	483.40			
2015	900.00		380.00	540.29		
2016	900.00			1,254.55	635.83	
2017					1,385.71	785.56
2018						954.61
2019					4,800.00	
2020					4,800.00	

Rolling Average NOx and SOx RTCs Price Report

On December 4, 2015, the Governing Board amended Rule 2002 to change the 12-month rolling average price of NOx RTCs for all trades for the current compliance year, excluding RTC trades reported at no price and swap transactions to a \$22,500 per ton threshold. It also established a new \$35,000 per ton threshold for the three-month rolling average price of current compliance year NOx RTCs and a \$200,000 per ton “price-floor” threshold for the twelve-month rolling average price of IYB NOx RTCs that would have become effective in 2019. The price floor in 2002(f)(1)(I) was subsequently removed by the Governing Board on October 5, 2018. The reporting of the three-month rolling average prices for current compliance year’s NOx RTCs and the twelve-month rolling average prices of IYB NOx RTCs started on May 1, 2016.

The December 2015 amendments directed the Executive Officer to report to the Governing Board if (a) the cost of current compliance year NOx RTCs exceeds \$22,500 per ton based on the twelve-month rolling average price, or (b) \$35,000

per ton based on the three-month rolling average price. If either (a) or (b) above occurs, the Governing Board may convert the Non-tradable/Non-usable NO_x RTCs valid for the period in which the RTC price(s) exceeded an applicable threshold to Tradable/Usable NO_x RTCs pursuant to Rule 2002(f)(1)(H).

Additionally, the Executive Officer's report to the Governing Board will include a "commitment and schedule to conduct a more rigorous control technology implementation, emission reduction, cost-effectiveness, market analysis, and socioeconomic impact assessment of the RECLAIM program."

Starting January 2017, the Executive Officer is calculating and reporting the twelve-month rolling average prices for current compliance year SO_x RTCs as required by the November 5, 2010 amendment to Rule 2002. The amendment established the \$50,000 per ton of SO_x RTC threshold. In the event that the SO_x RTC price threshold is exceeded, the Governing Board will decide whether or not to convert any portion of the Non-tradable/Non-usable SO_x RTCs to Tradable/Usable SO_x RTCs. Tables 2-16 through 2-19 list the various rolling average prices described above. The average NO_x and SO_x discrete-year RTC prices have all remained well below the applicable reporting thresholds.

Table 2-16
Twelve-Month Rolling Average Prices of Compliance Year 2018 Discrete-Year NO_x RTCs

Reporting Month	12-Month Period	Average Price (\$/ton)
January 2018	January 2017 through December 2017	\$10,639
February 2018	February 2017 through January 2018	\$10,639
March 2018	March 2017 through February 2018	\$10,337
April 2018	April 2017 through March 2018	\$9,643
May 2018	May 2017 through April 2018	\$9,320
June 2018	June 2017 through May 2018	\$9,473
July 2018	July 2017 through June 2018	\$8,618
August 2018	August 2017 through July 2018	\$8,251
September 2018	September 2017 through August 2018	\$8,050
October 2018	October 2017 through September 2018	\$7,287
November 2018	November 2017 through October 2018	\$5,447
December 2018	December 2017 through November 2018	\$4,219
January 2019	January 2018 through December 2018	\$3,786

Table 2-17
Three-Month Rolling Average Prices of Compliance Year 2018 Discrete-Year NO_x RTCs

Reporting Month	12-Month Period	Average Price (\$/ton)
January 2018	October 2017 through December 2017	\$10,500
February 2018	November 2017 through January 2018	\$10,500
March 2018	December 2017 through February 2018	\$7,300
April 2018	January 2018 through March 2018	\$7,295
May 2018	February 2018 through April 2018	\$6,855
June 2018	March 2018 through May 2018	\$6,160
July 2018	April 2018 through June 2018	\$6,235
August 2018	May 2018 through July 2018	\$5,848
September 2018	June 2018 through August 2018	\$5,813
October 2018	July 2018 through September 2018	\$4,233
November 2018	August 2018 through October 2018	\$3,517
December 2018	September 2018 through November 2018	\$3,435
January 2019	October 2018 through December 2018	\$3,251

Table 2-18
Twelve-Month Rolling Average Prices of IYB NO_x RTCs*

Reporting Month	12-Month Period	Average Price (\$/ton)
January 2018	January 2017 through December 2017	\$39,673
February 2018	February 2017 through January 2018	\$26,853
March 2018	March 2017 through February 2018	\$26,853
April 2018	April 2017 through March 2018	\$26,853
May 2018	May 2017 through April 2018	\$21,374
June 2018	June 2017 through May 2018	\$21,339
July 2018	July 2017 through June 2018	\$20,103
August 2018	August 2017 through July 2018	\$20,103
September 2018	September 2017 through August 2018	\$20,103
October 2018	October 2017 through September 2018	\$20,103

* The October 5, 2018 amendment to Rule 2002 eliminated the requirement to calculate infinite-year block NO_x RTC prices. The October 2018 report to the SCAQMD Stationary Source Committee was the last time the twelve-month rolling average prices of IYB NO_x RTCs was calculated.

Table 2-19
Twelve-Month Rolling Average Prices of Compliance Year 2018 Discrete-Year SOx RTCs

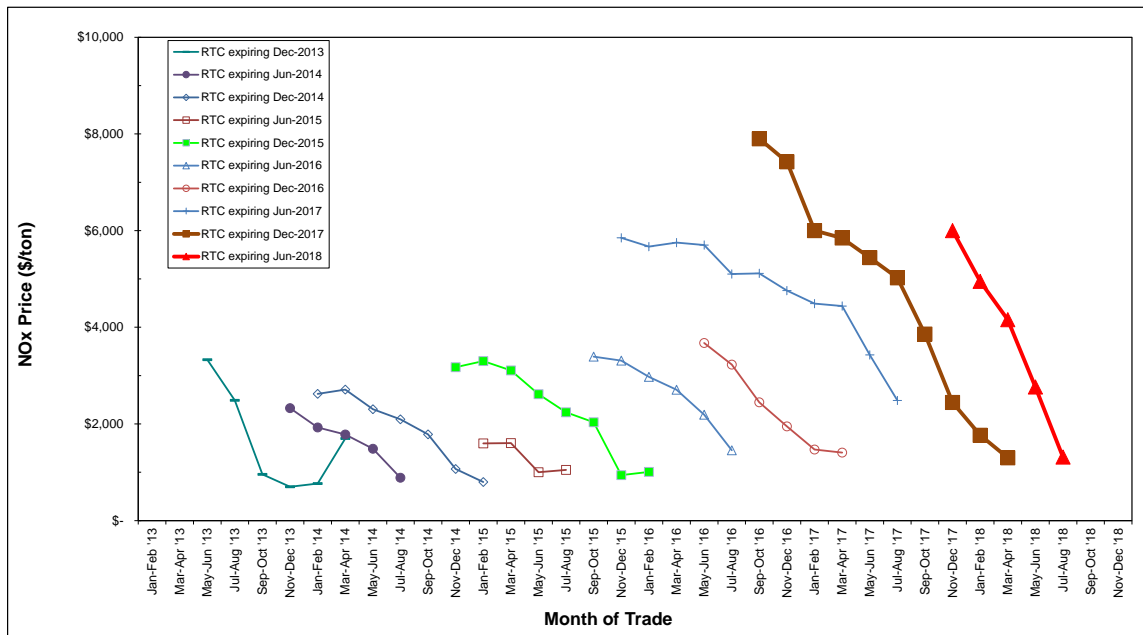
Reporting Month	12-Month Period	Average Price (\$/ton)
January 2018	January 2017 through December 2017	-
February 2018	February 2017 through January 2018	-
March 2018	March 2017 through February 2018	-
April 2018	April 2017 through March 2018	-
May 2018	May 2017 through April 2018	-
June 2018	June 2017 through May 2018	\$700
July 2018	July 2017 through June 2018	\$700
August 2018	August 2017 through July 2018	\$715
September 2018	September 2017 through August 2018	\$713
October 2018	October 2017 through September 2018	\$829
November 2018	November 2017 through October 2018	\$955
December 2018	December 2017 through November 2018	\$955
January 2019	January 2018 through December 2018	\$955

Average Price for NOx RTCs Nearing Expiration

Generally, RTC prices decrease as their expiration dates approach and during the sixty days after their expiration dates during which they can be traded. RTC prices are usually lowest during the 60 day-period following their expiration date during which facilities are allowed to trade and obtain RTCs to cover their emissions. This general trend has been repeated every year since 1994 except for Compliance Years 2000 and 2001 (during the California energy crisis), when NOx RTC prices increased as the expiration dates approached because the power plants' NOx emissions increased significantly, causing a shortage of NOx RTCs. Prices for NOx RTCs that expired in calendar year 2018 followed the general trend of RTC prices declining over the course of the compliance year and the sixty-day trading period thereafter.

The bi-monthly average price for these near-expiration NOx RTCs is shown in Figure 2-11 to illustrate the general price trend for these RTCs. The general declining trend of RTC prices nearing and just past expiration indicates that there was an adequate supply to meet RTC demand during the final reconciliation period following the end of the compliance years. A similar analysis is not performed for the price of SOx RTCs nearing expiration because there are not enough SOx trades over the course of the year to yield meaningful data. For calendar year 2018, there were only 17 discrete-year SOx trades with price for Compliance Years' 2017 and 2018 RTCs. These prices ranged from \$786 per ton to \$955 per ton throughout the year.

Figure 2-11
Bi-Monthly Average Price for NOx RTCs near Expiration



Note: Data is presented for a limited number of RTC expiration dates for graphical clarity.

IYB RTC Prices

The annual average price for IYB NOx RTCs traded in calendar year 2018 was \$13,223 per ton, which is much lower than the annual average price of \$39,673 per ton traded in calendar year 2017. This is expected due to the uncertainty over the future of the NOx RECLAIM program and the program's eventual sunset. The annual average price for IYB SOx RTCs traded in calendar year 2018 was \$30,000 per ton, which is higher than the \$22,820 per ton traded in calendar year 2017. There were two IYB SOx trades with price totaling 3.2 tons in 2018, compared to the four IYB SOx trades and 33.9 tons traded in 2017. Data regarding IYB RTCs traded with price (excluding swap trades) for NOx and SOx RTCs and their annual average prices since 1994 are summarized in Tables 2-20 and 2-21, respectively. In calendar year 2018, the annual average IYB RTC prices did not exceed the \$686,014 per ton of NOx RTCs or the \$493,930 per ton of SOx RTCs program review thresholds established by the Governing Board for IYB RTCs pursuant to California Health and Safety Code §39616(f).

Table 2-20
IYB NOx Pricing (Excluding Swaps)

Calendar Year	Total Reported Value (\$ millions)	IYB RTC Traded with Price (tons)	Number of IYB Registrations With Price	Average Price (\$/ton)
1994*	\$1.3	85.7	1	\$15,623
1995*	\$0.0	0	0	N/A
1996*	\$0.0	0	0	N/A
1997*	\$7.9	404.6	9	\$19,602
1998*	\$34.1	1,447.6	23	\$23,534
1999*	\$18.6	438.3	19	\$42,437
2000*	\$9.1	184.2	15	\$49,340
2001*	\$34.2	416.9	25	\$82,013
2002	\$5.5	109.5	31	\$50,686
2003	\$14.3	388.3	28	\$36,797
2004	\$12.5	557.0	52	\$22,481
2005	\$43.1	565.3	71	\$76,197
2006	\$65.2	432.9	50	\$150,665
2007	\$45.4	233.5	25	\$194,369
2008	\$49.7	245.6	27	\$202,402
2009	\$16.7	134.2	14	\$124,576
2010	\$14.3	149.0	13	\$95,761
2011	\$9.1	160.7	29	\$56,708
2012	\$2.2	46.6	13	\$48,146
2013	\$12.0	260.9	17	\$45,914
2014	\$99.7	902.2	49	\$110,509
2015	\$187.4	938.5	47	\$199,685
2016	\$114.7	301.9	20	\$380,057
2017	\$1.26	31.8	6	\$39,673
2018	\$0.52	39.6	5	\$13,223

* No information regarding swap trades was reported until May 9, 2001.

Table 2-21
IYB SOx Pricing (Excluding Swaps)

Calendar Year	Total Reported Value (\$ millions)	IYB RTC Traded with Price (tons)	Number of IYB Registrations With Price	Average Price (\$/ton)
1994*	\$0.0	0	0	N/A
1995*	\$0.0	0	0	N/A
1996*	\$0.0	0	0	N/A
1997*	\$11.9	429.2	7	\$27,738
1998*	\$1.0	50.0	1	\$19,360
1999*	\$0.8	55.0	3	\$14,946
2000*	\$1.4	50.6	5	\$27,028
2001*	\$10.2	306.8	8	\$33,288
2002	\$6.7	147.5	5	\$45,343
2003	\$0.6	110.9	1	\$5,680
2004	\$0.0	0.0	0	N/A
2005	\$1.0	141.5	3	\$7,409
2006	\$3.5	241.7	12	\$14,585
2007	\$3.7	155.2	5	\$23,848
2008	\$3.3	146.8	5	\$22,479
2009	\$3.7	100.0	4	\$36,550
2010	\$30.2	277.0	10	\$109,219
2011	\$1.03	10.0	2	\$102,366
2012	\$14.6	116.2	4	\$125,860
2013	\$14.4	79.2	4	\$181,653
2014	\$1.8	22.5	4	\$80,444
2015	\$4.0	74.8	4	\$53,665
2016	\$0.13	2.5	1	\$50,000
2017	\$0.77	33.92	4	\$22,820
2018	\$0.09	3.16	2	\$30,000

* No information regarding swap trades was reported until May 9, 2001.

Recent Program Amendments' Effect on Trading Trend

The SCAQMD Governing Board directed staff in March 2017 to transition the RECLAIM program to a command-and-control regulatory structure (see discussion in Chapter 3 under Program Amendments). Staff then initiated this effort and initial determinations have been sent to a group of facilities. This rulemaking effort may have had a significant impact on RTC trading activity and prices in 2018. Both the total value and the volume of discrete NOx RTCs traded decreased in 2018 compared to 2017. Similar to the discrete NOx trading activity, both the total value and the volume of IYB NOx RTCs decreased (the total value decreased from \$1.3 million in 2017 to only \$0.52 million in 2018). With the planned transition to a Command-and-Control regulatory structure, the longevity and utility of IYB RTCs will most likely diminish. The time horizon to possibly recoup investments in future years is shortened. Therefore, it is reasonable to expect values of IYB RTCs to decrease.

Like discrete NOx RTCs, discrete SOx RTCs also decreased in price during calendar year 2018 despite further reduction in SOx RTC supply in Compliance Year 2017. The SOx RTC supply was shaved starting with Compliance Year 2013, and continued to full implementation in Compliance Years 2019 and after. This reduced RTC supply should theoretically lead to higher prices.

The price of IYB SOx RTCs increased slightly, whereas the price of IYB NOx RTCs decreased significantly. The differing RTC price trend could be due to the further NOx emission reductions destined under CMB-05 of the Final 2016 Air Quality Management Plan and to the current transition of NOx RECLAIM, whereas the RECLAIM SOx program is intended to continue to exist at least until after all NOx sources have been transitioned out of the Program.

Other Types of RTC Transactions and Uses

Another type of RTC trade, besides traditional trading and swapping activities, is a trade involving the contingent right (option) to purchase RTCs. In those trades, one party pays a premium for the contingent right (option) to purchase RTCs owned by the other party at a pre-determined price within a certain time period. Until RTCs are transferred from seller to buyer, prices for options are not reported, because the seller is not paid for the actual RTCs, but only for the right to purchase the RTCs at a future date. These rights may or may not actually be exercised. RTC traders are obligated to report options to SCAQMD within five business days of reaching an agreement. These reports are posted on SCAQMD's website. There were no reported trades involving the contingent right to buy or sell RTCs in calendar year 2018.

In addition to mitigating emissions at RECLAIM facilities, RTCs were also used by facilities to satisfy variance conditions. During calendar year 2018, one RECLAIM facility and one non-RECLAIM facility retired a total of 7.6 tons of NOx RTCs for this purpose. These consisted of discrete-year NOx RTCs for Compliance Years 2017 and 2018.

Market Participants

RECLAIM market participants have traditionally included RECLAIM facilities, brokers, commodity traders, and private investors. Starting in calendar year 2004, mutual funds joined the traditional participants in RTC trades. Market participation expanded further in 2006, when foreign investors started participating in RTC trades. However, foreign investors have not participated in any RTC trades since calendar year 2008 and foreign investors do not hold any current or future RTCs at this time.

RECLAIM facilities are the primary users of RTCs and they hold the majority of RTCs as allocations. They usually sell their surplus RTCs by the end of the compliance year or when they have a long-term decrease in emissions. Brokers match buyers and sellers, and usually do not purchase or own RTCs. Commodity traders and private investors actually invest in and own RTCs in order to seek profits by trading them. They do not need RTCs to offset or reconcile any emissions. For purposes of discussion in this report, "investors" include all parties who hold RTCs other than RECLAIM facility permit holders and brokers. Brokers typically do not actually purchase RTCs, but only facilitate trades.

Investor Participation

In 2018, investors were actively involved in 114 of the 186 discrete-year NO_x RTC trades with price and 11 of the 17 discrete-year SO_x RTC trades with price. Investors were involved in three of the five IYB NO_x trades with price, and one of the two IYB SO_x trades with price.

Investors' involvement in discrete-year NO_x and SO_x trades registered with price in calendar year 2018 is illustrated in Figures 2-12 and 2-13. Figure 2-12 is based on total value of discrete-year NO_x and SO_x RTCs traded, and shows that investors were involved in 64% and 61%, respectively, of the discrete-year NO_x and SO_x trades reported by value. Figure 2-13 is based on volume of discrete-year RTCs traded with price and shows that investors were involved in 55% and 60% of the discrete-year NO_x and SO_x trades by volume, respectively. Figures 2-14 and 2-15 provide similar data for IYB NO_x and SO_x trades. Investors were involved 64% and 45% of IYB NO_x and SO_x trades by value, and 50% and 45% of IYB NO_x and SO_x trades by volume, respectively.

Figure 2-12

Calendar Year 2018 Investor-Involved Discrete-Year NO_x and SO_x Trades Based on Value Traded

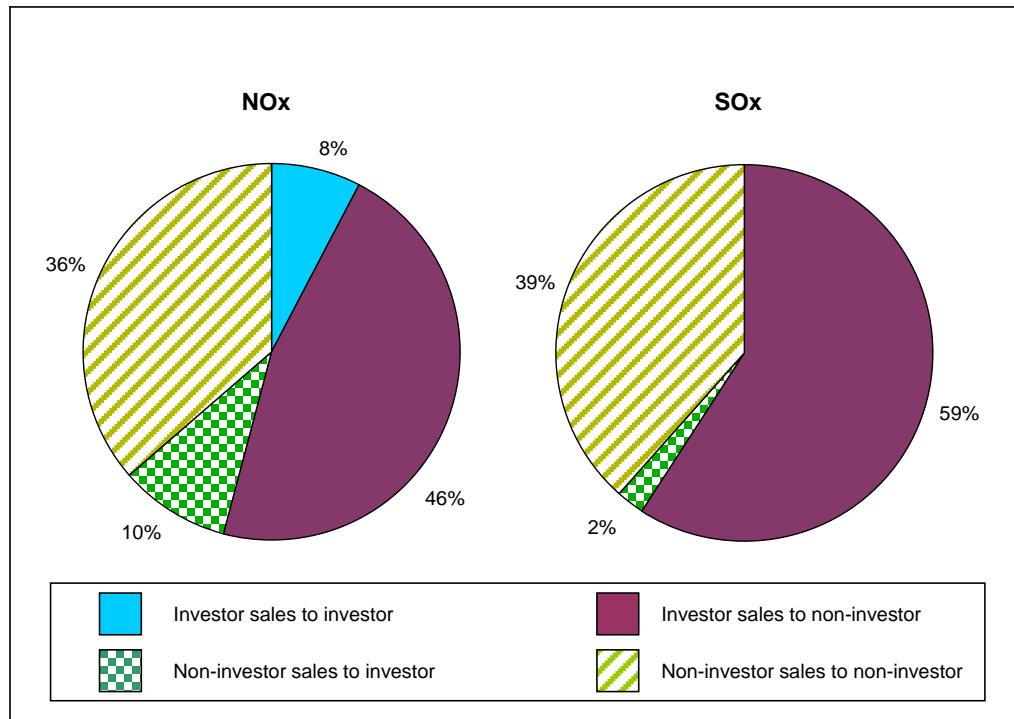


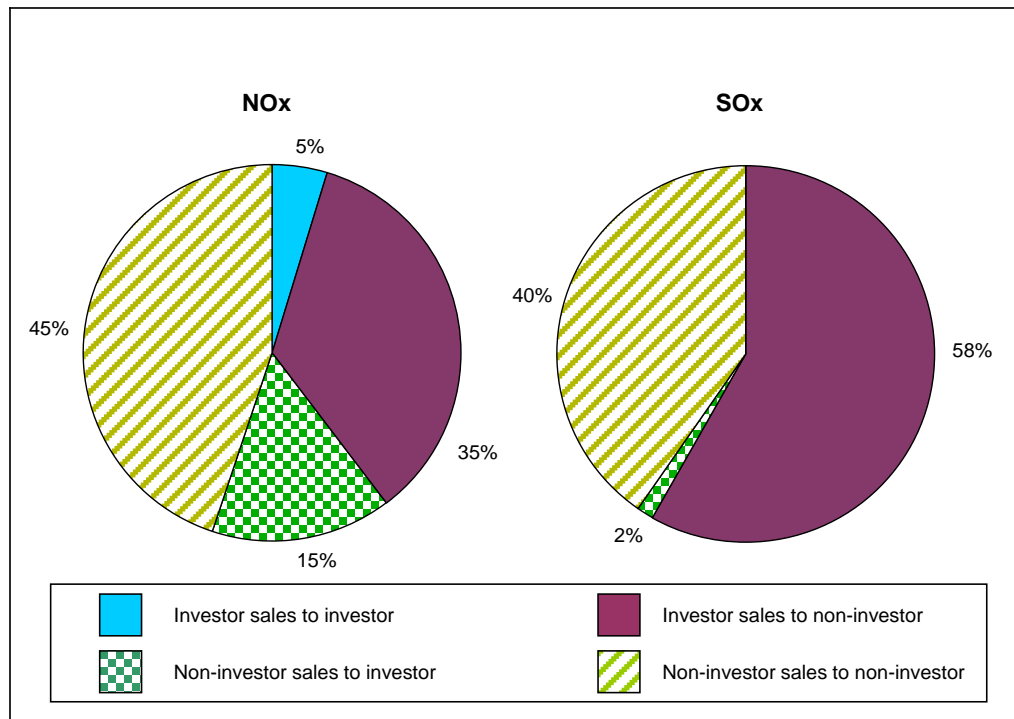
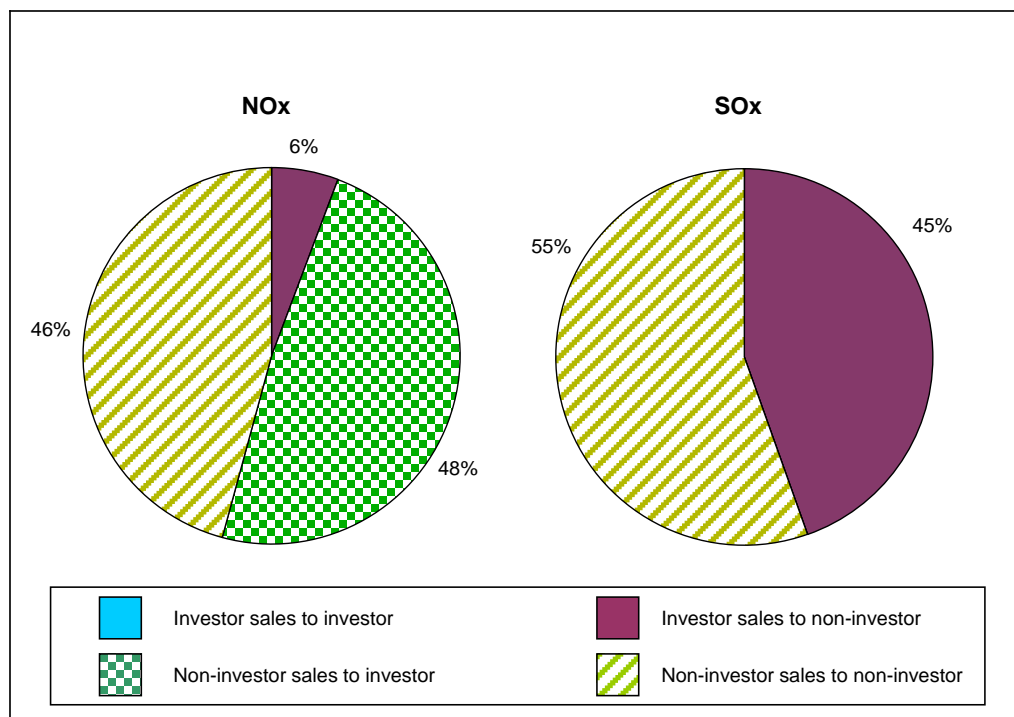
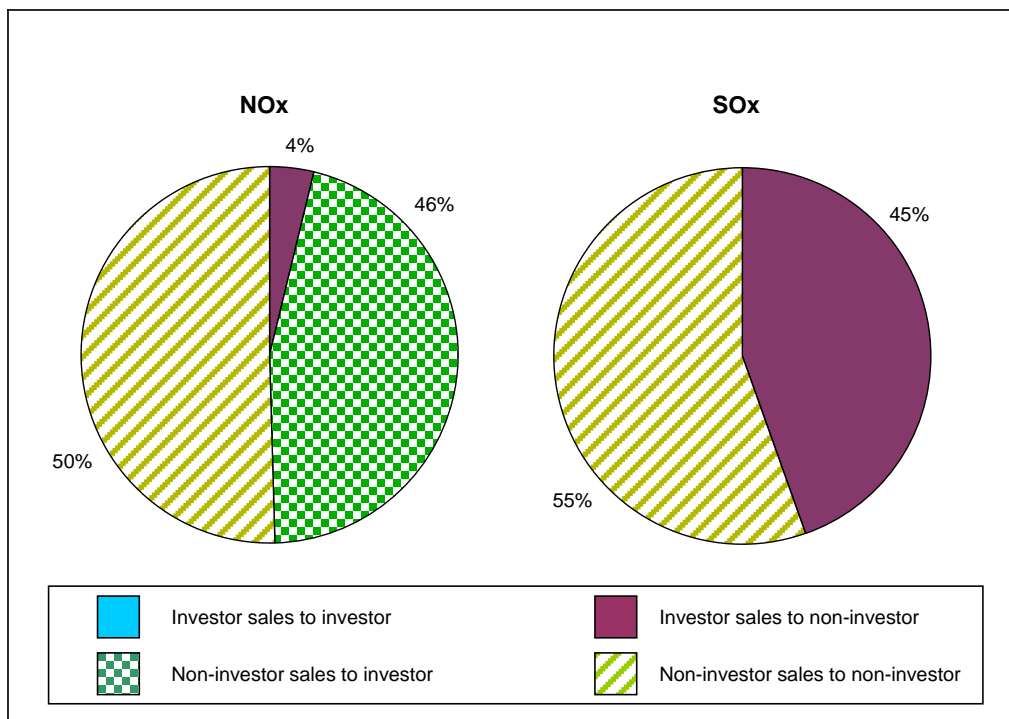
Figure 2-13**Calendar Year 2018 Investor-Involved Discrete-Year NOx and SOx Trades Based on Volume Traded with Price****Figure 2-14****Calendar Year 2018 Investor-Involved IYB NOx and SOx Trades Based on Value Traded**

Figure 2-15

Calendar Year 2018 Investor-Involved IYB NOx and SOx Trades Based on Volume Traded with Price



As of the end of calendar year 2018, investors' holding of IYB NOx RTCs had slightly increased to 3.8% compared to 3.3% at the end of calendar year 2017. Mutual fund investors are no longer holders of IYB NOx RTCs, down from a high of 3.3% at the end of calendar year 2011 and 1.4% at the end of calendar year 2014. Investors' holding of IYB SOx RTCs decreased to 4.7% at the end of calendar year 2018 from 6.0% at the end of calendar year 2017. No IYB SOx RTCs are currently held by mutual fund investors.

The available supply of IYB RTCs are generally from facilities that have permanently reduced emissions through the installation of control equipment, the modification or replacement of old equipment, or equipment and/or facility shutdowns. There were four RECLAIM facilities that shut down during Compliance Year 2017. These four facilities all participated in the NOx RECLAIM program only and held a total of 15.9 tons of IYB NOx RTCs. None of the IYB RTCs were sold prior to or after the facilities shutdown.

Investor Impacts on RTC Market

Theoretically, the role of investors in this market is to provide capital for installing air pollution control equipment that costs less than the market value of credits. In addition, investors can also improve price competitiveness. This market theory may not fully apply to RECLAIM due to the uniqueness of the program because RECLAIM facility operators have no substitute for RTCs, and short of curtailing operations, pollution controls cannot be implemented within a short time period. That is, there is no alternative source of credits available to RECLAIM facilities

when RTC prices increase (they do not have the option to switch to another source of credits when RTCs become expensive). Therefore, RECLAIM facility operators may be at the mercy of owners of surplus or investor-owned RTCs in the short term, particularly during times of rapid price increases, as evidenced in 2000 and 2001 during the California energy crisis.

Generally, RECLAIM facilities hold back additional RTC's for each year as a compliance margin to ensure that they do not inadvertently find themselves exceeding their allocations (failing to reconcile by securing sufficient RTCs to cover their emissions) if their reported emissions increase as the result of any problems or errors discovered by SCAQMD staff during annual facility audits. Facilities have indicated to staff in the past that this compliance margin is approximately 10% of their emissions. For Compliance Year 2017, the total RECLAIM NOx emissions were 7,246 tons, while the total NOx RTC allocation was 8,978 tons. This NOx RTC surplus of 1,732 tons (19% of allocation) is well above the 10% compliance margin reportedly held by RECLAIM facilities. If the future total NOx emissions stay constant, the difference between the NOx RTC allocation and NOx emissions would not decrease below 10% until Compliance Year 2020.

In past annual audit reports, staff made comparisons between emissions and future available RTC supplies to highlight the potential of a seller's market for NOx RTCs if adequate emissions controls were not implemented in a timely manner. The probability of this scenario has diminished because of current efforts to transition to a command and control framework. Barring a sudden and significant surge in NOx emissions during 2018 Compliance Year, it is expected that there will be adequate RTCs available to reconcile with RECLAIM NOx emissions despite investor IYB holdings of 3.8 percent.

CHAPTER 3

EMISSION REDUCTIONS ACHIEVED

Summary

For Compliance Year 2017, aggregate NOx emissions were below total allocations by 19% and aggregate SOx emissions were below total allocations by 17%. No emissions associated with breakdowns were excluded from reconciliation with facility allocations in Compliance Year 2017. Accordingly, no mitigation is necessary to offset excluded emissions due to approved Breakdown Emission Reports. Therefore, based on audited emissions, RECLAIM achieved its targeted emission reductions for Compliance Year 2017. With respect to the Rule 2015 backstop provisions, Compliance Year 2017 aggregate NOx and SOx emissions were both well below aggregate allocations and, as such, did not trigger the requirement to review the RECLAIM program.

Background

One of the primary objectives of the annual RECLAIM program audits is to assess whether RECLAIM is achieving its targeted emission reductions. Those targeted emission reductions are embodied in the annual allocations issued to RECLAIM facilities. In particular, the annual allocations reflect required emission reductions initially from the subsumed command-and-control rules and control measures, as well as from subsequent reductions in allocations as a result of BARCT implementation.

In January 2005 and December 2015, the Board adopted amendments to Rule 2002 to further reduce aggregate RECLAIM NOx allocations through implementation of the latest BARCT. The 2005 amendments resulted in cumulative NOx allocation reductions of 22.5% (2,811 tons/year, or 7.7 tons/day) from all RECLAIM facilities by Compliance Year 2011, with the biggest single-year reduction of 11.7% in Compliance Year 2007. The 2015 amendments will reduce NOx allocations by 45.2% (4,380 tons/year, or 12.0 tons/day) by Compliance Year 2022. The reductions are phased-in from Compliance Year 2016 through Compliance Year 2022 with 2 tons/day of the NOx Allocation reduction occurring through Compliance Year 2017.

The Board also amended Rule 2002 in November 2010 to implement BARCT for SOx. Specifically, the November 2010 amendments called for certain facilities' RECLAIM SOx allocations to be adjusted to achieve a 48.4% (2,081 tons/year, or 5.7 tons/day) overall reduction, with the reductions phased-in from Compliance Year 2013 through Compliance Year 2019. For Compliance Year 2017, 1,825 tons/year, or 5.0 tons/day (approximately 88% of the scheduled reduction), of SOx allocations were reduced. The final 255.5 ton/year (0.7 ton/day) reduction will occur in Compliance Year 2019.

Emissions Audit Process

Since the inception of the RECLAIM program, SCAQMD staff has conducted annual program audits of the emissions data submitted by RECLAIM facilities to ensure the integrity and reliability of RECLAIM emission data. The process

includes reviews of APEP reports submitted by RECLAIM facilities and audits of field records and emission calculations. The audit process is described in further detail in Chapter 5 – Compliance.

SCAQMD staff adjusts the APEP-reported emissions based on audit results, as necessary. Whenever SCAQMD staff finds discrepancies, they discuss the findings with the facility operators and provide the operators an opportunity to review changes resulting from facility audits and to present additional data or information in support of the data stated in their APEP reports.

This rigorous audit process, although resource intensive, reinforces RECLAIM's emissions monitoring and reporting requirements and enhances the validity and reliability of the final emissions data. The audited emissions are used to determine if a facility complied with its allocations. The most recent five compliance years' audited NO_x emissions for each facility are posted on SCAQMD's web page after the audits are completed. All emissions data presented in this annual RECLAIM audit report are compiled from audited facility emissions.

Emission Trends and Analysis

RECLAIM achieves its emission reduction goals on an aggregate basis by ensuring that annual emissions are below total RTCs. It is important to understand that the RECLAIM program is successful at achieving these emission reduction goals even when some individual RECLAIM facilities exceed their RTC account balances, provided aggregate RECLAIM emissions do not exceed aggregate RTCs issued. Therefore, aggregate audited NO_x or SO_x emissions from all RECLAIM sources are the basis for determining whether the programmatic emission reduction goals for that emittent are met each year.

Table 3-1 and Figure 3-1 show aggregate audited NO_x emissions and the aggregate annual NO_x RTC supply for Compliance Years 1994 through 2017. No facility audits for Compliance Years 1994 through 2016 were reopened during the past year so the aggregate audited NO_x and SO_x emissions for these years are unchanged from the previous annual report. Programmatically, there were excess NO_x RTCs remaining after accounting for audited NO_x emissions for every compliance year since 1994, except for Compliance Year 2000 when NO_x emissions exceeded the total allocations due to the California energy crisis. Aggregate NO_x allocations for Compliance Year 2017 were reduced by 722 tons from Compliance Year 2015 levels due to the 2015 BARCT related amendment of Rule 2002. Annual NO_x emissions have remained within a narrow range (between 7,246 tons and 7,691 tons annually) since Compliance Year 2011. Specifically, Compliance Year 2017 NO_x emissions were below total allocations by 19% and returned to the same level (7,246 tons) as Compliance Year 2015.

Table 3-1

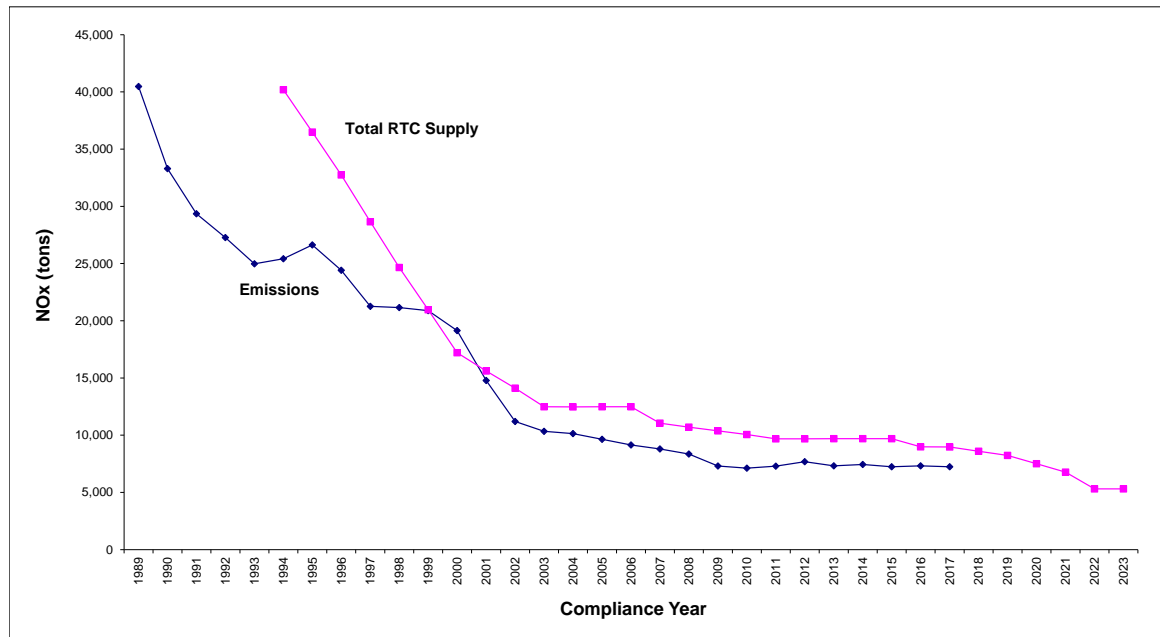
Annual NOx Emissions for Compliance Years 1994 through 2017

Compliance Year	Audited Annual NOx Emissions ¹ (tons)	Audited Annual NOx Emissions Change from 1994 (%)	Total NOx RTCs ² (tons)	Unused NOx RTCs (tons)	Unused NOx RTCs (%)
1994	25,420	0%	40,187	14,767	37%
1995	26,632	4.8%	36,484	9,852	27%
1996	24,414	-4.0%	32,742	8,328	25%
1997	21,258	-16%	28,657	7,399	26%
1998	21,158	-17%	24,651	3,493	14%
1999	20,889	-18%	20,968	79	0.38%
2000	19,148	-25%	17,208	-1,940	-11%
2001	14,779	-42%	15,617	838	5.4%
2002	11,201	-56%	14,111	2,910	21%
2003	10,342	-59%	12,485	2,143	17%
2004	10,134	-60%	12,477	2,343	19%
2005	9,642	-62%	12,484	2,842	23%
2006	9,152	-64%	12,486	3,334	27%
2007	8,796	-65%	11,046	2,250	20%
2008	8,349	-67%	10,705	2,356	22%
2009	7,306	-71%	10,377	3,071	30%
2010	7,121	-72%	10,053	2,932	29%
2011	7,302	-71%	9,690	2,388	25%
2012	7,691	-70%	9,689	1,998	21%
2013	7,326	-71%	9,699	2,373	24%
2014	7,447	-71%	9,699	2,252	23%
2015	7,246	-71%	9,700	2,454	25%
2016	7,328	-71%	8,992	1,664	19%
2017	7,246	-71%	8,978	1,732	19%

¹ The RECLAIM universe is divided into two cycles with compliance schedules staggered by six months. Compliance years for Cycle 1 facilities run from January 1 through December 31 and Cycle 2 compliance years are from July 1 through June 30.

² Total RTCs = Allocated RTCs + RTCs from ERC conversion.

Figure 3-1
NOx Emissions and Available RTCs



Similar to Table 3-1 and Figure 3-1 for NO_x, Table 3-2 presents aggregate annual SO_x emissions data for each compliance year based on audited emissions, and Figure 3-2 compares these audited aggregate annual SO_x emissions with the aggregate annual SO_x RTC supply. As shown in Table 3-2 and Figure 3-2, RECLAIM facilities have not exceeded their SO_x allocations on an aggregate basis in any compliance year since program inception. For Compliance Year 2017, SO_x emissions had a slight increase compared to those in Compliance Year 2016 (from 2,024 tons to 2,043 tons) and were below total allocations by 17%. Annual SO_x emissions have remained within a narrow range (between 2,024 tons and 2,176 tons) since Compliance Year 2013. For Compliance Year 2017, SO_x Allocations were reduced by 362 tons pursuant to reductions adopted by the Governing Board in November 2010. The data indicates that RECLAIM met its programmatic SO_x emission reduction goals and demonstrated equivalency in SO_x emission reductions compared to the subsumed command-and-control rules and control measures.

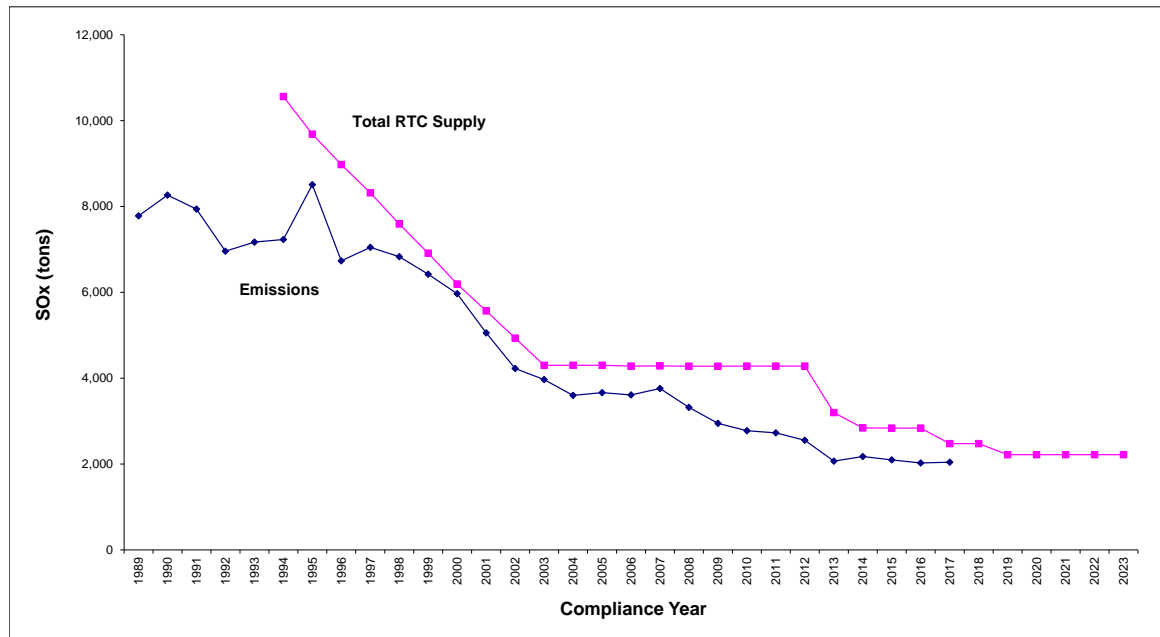
Table 3-2
Annual SOx Emissions for Compliance Years 1994 through 2017

Compliance Year	Audited Annual SOx Emissions¹ (tons)	Audited Annual SOx Emissions Change from 1994 (%)	Total SOx RTCs² (tons)	Unused SOx RTCs (tons)	Unused SOx RTCs (%)
1994	7,230	0%	10,559	3,329	32%
1995	8,508	18%	9,685	1,177	12%
1996	6,731	-6.9%	8,976	2,245	25%
1997	7,048	-2.5%	8,317	1,269	15%
1998	6,829	-5.5%	7,592	763	10%
1999	6,420	-11%	6,911	491	7.1%
2000	5,966	-17%	6,194	228	3.7%
2001	5,056	-30%	5,567	511	9.2%
2002	4,223	-42%	4,932	709	14%
2003	3,968	-45%	4,299	331	7.7%
2004	3,597	-50%	4,299	702	16%
2005	3,663	-49%	4,300	637	15%
2006	3,610	-50%	4,282	672	16%
2007	3,759	-48%	4,286	527	12%
2008	3,319	-54%	4,280	961	22%
2009	2,946	-59%	4,280	1,334	31%
2010	2,775	-62%	4,282	1,507	35%
2011	2,727	-62%	4,283	1,556	36%
2012	2,552	-65%	4,283	1,731	40%
2013	2,066	-71%	3,198	1,132	35%
2014	2,176	-70%	2,839	663	23%
2015	2,096	-71%	2,836	740	26%
2016	2,024	-72%	2,836	812	29%
2017	2,043	-72%	2,474	431	17%

¹ The RECLAIM universe is divided into two cycles with compliance schedules staggered by six months. Compliance years for Cycle 1 facilities run from January 1 through December 31 and Cycle 2 compliance years are from July 1 through June 30.

² Total RTCs = Allocated RTCs + RTCs from ERC conversion.

Figure 3-2
SOx Emissions and Available RTCs



Comparison to Command-and-Control Rules

RECLAIM subsumed a number of command-and-control rules¹ and sought to achieve reductions equivalent to these subsumed rules that continue to apply to non-RECLAIM facilities. RECLAIM facilities are exempt from the subsumed rules' requirements that apply to SOx or NOx emissions once the facilities comply with the applicable monitoring requirements of Rules 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions or 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions, respectively. No changes were made to these subsumed rules during Compliance Year 2017.

Other rules that were amended or adopted during Compliance Year 2017, but not subsumed by RECLAIM include Rule 1118 – Control of Emissions from Refinery Flares and Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces. On July 7, 2017, the Governing Board amended Rule 1118 – Control of Emissions from Refinery Flares to minimize flaring from refineries. Refinery flares are specifically excluded from RECLAIM². Amended Rule 1118 incorporated parts of U.S. EPA's recently updated Refinery Sector Rule that focused on reducing significant flaring events, and ensuring that when flaring does occur, combustion is as efficient as possible in order to reduce emissions. Additionally, this amended rule included requirements for facilities to: 1) prepare a Scoping Document to evaluate the feasibility of reducing or avoiding flaring events, 2) update emission factors based on recent U.S. EPA guidance, 3) remove the annual cap on mitigation fees paid for flaring, 4) remove the existing

¹ See Tables 1 and 2 of Rule 2001.

² See Rules 2011(i) and Rule 2012(k).

\$4 million annual cap on Mitigation Fees, and 5) enhance current reporting requirements, as well as other administrative updates.

On March 2, 2018, the Governing Board amended Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces. Prior amendments to this rule had lowered the NOx emission limit for certain natural-gas-fired fan-type residential furnaces to 14 ng/J and provided manufacturers additional time to develop and commercialize compliant units by allowing a mitigation fee alternative compliance option. However, additional time was needed to commercialize a range of compliant units for the various categories of furnaces. The March amendment to Rule 1111 increased and extended this mitigation fee alternative compliance option, and prohibited the installation of propane furnaces in the SCAQMD capable of being fired on natural gas without proper certification. At the Public Hearing to adopt the Rule 1111 amendments, the Board directed staff to propose additional labeling requirements to better inform consumers when they consider a unit which does not meet the emission standard and is subject to mitigation fee. As a result, on July 6, 2018, new requirements for identifying this type of furnace was proposed and Rule 1111 was amended by the Governing Board. The requirements include proper labeling on the equipment, in all brochures, in technical specification sheets, and on the manufacturer's website for these specific units.

Since both Rule 1118 and Rule 1111 were not subsumed under RECLAIM and contained no exemptions from their applicability to RECLAIM NOx or SOx sources, the requirements of these amended rules apply equally to both RECLAIM and non-RECLAIM facilities. As such, there are no differential impacts in emissions when comparing the applicability of amended rule requirements to NOx and SOx sources under RECLAIM with NOx and SOx sources of non-RECLAIM facilities.

Consequently, during Compliance Year 2017, both rules subsumed by RECLAIM, and rules not subsumed by RECLAIM that were recently amended, did not result in any disparate impacts between NOx and SOx sources at RECLAIM and NOx and SOx sources at non-RECLAIM facilities.

Program Amendments

On March 3, 2017, the Governing Board adopted a resolution during the adoption of the 2016 AQMP that directed staff to modify Control Measure CMB-05 – Further NOx Reductions from RECLAIM Assessment to achieve an additional five tons per day NOx emission reductions as soon as feasible but no later than 2025, and to transition the RECLAIM program to a command and control regulatory structure requiring BARCT level controls as soon as practicable. Additionally, California State Assembly Bill (AB) 617 was approved in July 2017, requiring an expedited schedule for implementing BARCT at RECLAIM facilities that are covered by the Greenhouse Gas (GHG) cap-and-trade program no later than December 31, 2023.

Transition Process

To further this effort, staff organized and held monthly working group meetings (with the first meeting held on June 8, 2017) to discuss the transition of facilities in the RECLAIM program to a command-and-control regulatory structure and to

discuss key policy issues. The objective is to provide an open forum for all stakeholders to discuss and guide the transition process. The goal is to develop “Landing Rules” establishing the BARCT emission levels for equipment transitioning out of the NOx RECLAIM program. Rule 2001 – Applicability specifically exempts RECLAIM facilities from a number of existing command-and-control NOx rules (see Table 1 of Rule 2001). As part of the transition process, these command-and-control rules have to be amended and additional new NOx BARCT command-and-control rules have to be adopted (collectively referred to as “Landing Rules”) to ensure that when a facility transitions out of RECLAIM, its NOx equipment has explicit BARCT emission limits and an appropriate time frame to achieve compliance.

The first set of rules to be amended to initiate the transition of NOx sources out of RECLAIM, Rule 2001 – Applicability, and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), was adopted by the Governing Board on January 5, 2018. Amended Rule 2001 precluded new or existing facilities from entering the NOx and SOx RECLAIM programs as of January 5, 2018. Amended Rule 2002 contained notification procedures for facilities that will be transitioned out of RECLAIM and addressed the RTC holding for these facilities that will be transitioned out or that elect to exit RECLAIM. Under amended Rule 2002, the Executive Officer will provide an initial determination notification to a RECLAIM facility for potential exit to a command-and-control regulatory structure with requirements for the facility to identify all NOx-emitting equipment. This initial determination notification serves as a preliminary notice to a facility for which all NOx sources are covered by Landing Rules, and will be issued when SCAQMD staff determines every permitted NOx source is covered by Landing Rules. When an initial determination notification is issued to a facility, the RECLAIM facility then has 45 days from the date of the notification to identify all NOx-emitting equipment. Failure to provide this information to SCAQMD will result in a freeze on RTC uses, trades, or transfers until the requested information is submitted. If the RECLAIM facility is deemed ready for transition after Executive Officer review, it will receive a final determination notification that will require its exit from RECLAIM and will become subject to command-and-control regulations. If the RECLAIM facility is deemed as not ready for the transition, it will be notified that it will remain in NOx RECLAIM until a later time. Upon exiting RECLAIM, the facility’s future compliance year RTCs cannot be sold or transferred and only RTCs valid for the then current compliance year can be used or sold.

Staff originally identified an initial group of 38 facilities that could potentially exit the NOx RECLAIM program because they had no facility NOx emissions, or had NOx emissions solely from the combination of equipment exempt from obtaining a written permit pursuant to Rule 219 (unless the equipment would be subject to a command-and-control rule that it could not reasonably comply with), various locations permits, or unpermitted equipment and/or RECLAIM equipment that met current command-and-control BARCT rules. However, these facilities have not been issued final determinations to exit RECLAIM pending resolution of New Source Review provisions for facilities that are expected to be transitioned out of RECLAIM.

Both Rules 2001 and 2002 were again amended by the Governing Board on October 5, 2018. Amended Rule 2001 added a provision to allow facilities to opt-

out of RECLAIM if certain criteria were met. Amended Rule 2002 provided an option for facilities that received an initial determination notification to stay in RECLAIM for a limited time, while complying with applicable command-and-control requirements. Additionally, amended Rule 2002 established a requirement that facilities which are issued a final determination to be transitioned out of the NOx RECLAIM program to provide emission reduction credits to offset any NOx emissions increases, calculated pursuant to Rule 1306 – Emission Calculations, notwithstanding the exemptions contained in Rule 1304 – Exemptions and the requirements contained in Rule 1309.1 – Priority Reserve, until New Source Review provisions governing NOx emission calculations and offsets are amended to address former RECLAIM sources. Finally, Rule 2002 removed the requirement to report infinite year block (IYB) NOx RTC prices to the Board when the price falls below the minimum threshold.

Landing Rules

As explained earlier, Landing Rules are needed to establish BARCT emission limits, the timing for the implementation of BARCT, and monitoring, reporting, and recordkeeping (MRR) requirements. These Landing Rules also serve to facilitate the transition process for RECLAIM facilities from the requirements of RECLAIM to a command and control regulatory structure. Determination of BARCT limits are made through an analytical process that is comprised of researching control options for facilities' equipment, analyzing the cost-effectiveness of the control options, and calculating the incremental cost-effectiveness of the control options. Emission levels are established based on their current achievability, source test results, and vendor guarantees.

Throughout the BARCT determination process, rule-specific working group meetings are held to present staff's findings regarding the feasibility and cost-effectiveness of implementing BARCT. Working group meetings are open to the public and provide an opportunity for stakeholders to participate in the rule development process. During the public process, cost assumptions are discussed through the Working Group to solicit comments. Cost-effectiveness and incremental cost-effectiveness, if applicable, are discussed and presented during the rule working group meetings, presented at the Public Workshop, included in the Draft Staff Report, and included in the Board Letter for the adoption hearing. The Socioeconomic analysis uses the cost data to estimate regional and industry-specific socioeconomic impacts from the proposed rule and its proposed controls, while the California Environmental Quality Act (CEQA) analysis provides the environmental impacts that result from implementing a rule.

Staff have identified a number of rules that need amendments and new rules that need to be adopted to support the transitioning of NOx sources out of RECLAIM. Table 3-3 provides a summary of the identified Landing Rules. Rule 1100 is specifically designed to specify compliance schedules for sources exiting RECLAIM to provide adequate time for the sources to achieve compliance with newly defined BARCT limits. Further information regarding the specifics of each rule can be found at <http://www.agmd.gov/home/rules-compliance/rules/scagmd-rule-book/proposed-rules>

Table 3-3
Summary of Landing Rules

Rule	Focus Area	Description
113	Monitoring, Reporting, and Recordkeeping	Establishes MRR requirements for facilities exiting RECLAIM.
218 and 218.1	Continuous Emission Monitoring	Revises provisions for continuous emission monitoring systems for facilities exiting RECLAIM.
1100	Implementation Schedule for NOx Facilities	Establishes implementation schedule for equipment that meets applicability provisions of Landing Rules.
1109	Boilers and Process Heaters in Petroleum Refineries	To be rescinded with adoption of Proposed Rule 1109.1.
1109.1	Refinery Equipment	Establishes NOx emission limits to reflect BARCT.
1110.2	Gaseous - and Liquid-Fueled Engines	<ul style="list-style-type: none"> • Updates NOx emission limits to reflect current BARCT. • Establishes ammonia emission limit.
1117	Glass Melting Furnaces	Establishes NOx emission limits to reflect current BARCT.
1118.1	Non-Refinery Flares	Establishes NOx, VOC and CO emission limits for new or replaced flares and establishes a capacity threshold for existing flares.
1134	Stationary Gas Turbines	<ul style="list-style-type: none"> • Updates NOx emission limits to reflect current BARCT. • Establishes ammonia emission limit.
1135	Electric Power Generating Systems	<ul style="list-style-type: none"> • Updates NOx emission limits to reflect current BARCT. • Establishes ammonia emission limit.
1146, 1146.1, and 1146.2	Boilers, Steam Generators, Process Heaters, and Large Water Heaters	<ul style="list-style-type: none"> • Establishes NOx emission limits for specific units. • Requires BARCT technology assessment for specific units. • Establishes ammonia emission limits.
1147	Miscellaneous Sources	<ul style="list-style-type: none"> • Removes equipment that will be regulated under Proposed Rules 1147.1, 1147.2, and 1147.3. • Evaluates existing NOx emission limits.
1147.1	Large Miscellaneous Combustion	Establishes NOx emission limits to reflect current BARCT.
1147.2	Metal Melting and Heat Treating Furnaces	Establishes NOx emission limits to reflect current BARCT.
1147.3	Aggregate Facilities	Establishes NOx emission limits to reflect current BARCT.
2001	RECLAIM Applicability	Prevents new NOx RECLAIM facility inclusions as of January 5, 2018.

Rule	Focus Area	Description
2002	RECLAIM Exit Procedures, Requirements and Restrictions	<ul style="list-style-type: none">• Establishes NOx RECLAIM facility exit notification requirements.• Allows facilities identified as exiting to temporarily remain in NOx RECLAIM.• Requires exited facilities to provide emission reduction credits to offset any NOx emissions increases, until New Source Review provisions governing NOx emission calculations and offsets are amended.• Prohibits exited facilities from selling or transferring future compliance year RECLAIM Trading Credits.
2005	All Equipment	<ul style="list-style-type: none">• Allow for New Source Review provisions to address facilities that are transitioning from RECLAIM to command-and-control.• May propose amendments to Regulation XIII to address New Source Review provisions for facilities that transitioned out of RECLAIM.

Monthly working group meetings are being continued to further discuss steps for transitioning the remaining RECLAIM facilities to a command-and-control structure and to develop necessary rule amendments to implement BARCT for the exiting RECLAIM facilities. Since the RECLAIM universe includes many different industries, separate working groups have been formed to address and develop these different BARCT landing rules. As part of the planning effort, staff originally targeted the first quarter in 2019 to complete the transition. However, completion of the development efforts for the 21 Landing Rules is now targeted for December 2019. Except for those facilities that specifically opted out of the Program pursuant to Rule 2001, transitioning of RECLAIM sources that are eligible to exit is scheduled to begin after the New Source Review provisions are addressed by a rule amendment.

Breakdowns

Pursuant to Rule 2004(i) – Breakdown Provisions, a facility may request that emission increases due to a breakdown not be counted towards the facility's allocations. In order to qualify for such exclusion, the facility must demonstrate that the excess emissions were the result of a fire or a mechanical or electrical failure caused by circumstances beyond the facility's reasonable control. The facility must also take steps to minimize emissions resulting from the breakdown, and mitigate the excess emissions to the maximum extent feasible. Applications for exclusion of unmitigated breakdown emissions from a facility's total reported annual RECLAIM emissions must be approved or denied by SCAQMD in writing. In addition, facilities are required to quantify unmitigated breakdown emissions for which an exclusion request has been approved in their APEP report.

As part of the annual program audit report, Rule 2015(d)(3) requires SCAQMD staff to determine whether excess emissions approved to be excluded from RTC

reconciliation have been programmatically offset by unused RTCs within the RECLAIM program. If the breakdown emissions exceed the total unused RTCs within the program, any excess breakdown emissions must be offset by either: (1) deducting the amount of emissions not programmatically offset from the RTC holdings for the subsequent compliance year from facilities that had unmitigated breakdown emissions, proportional to each facility's contribution to the total amount of unmitigated breakdown emissions; and/or (2) RTCs obtained by the Executive Officer for the compliance year following the completion of the annual program audit report in an amount sufficient to offset the unmitigated breakdown emissions.

As shown in Table 3-4, a review of APEP reports for Compliance Year 2017 found that no facilities requested to exclude breakdown emissions from being counted against their allocations. Thus, for Compliance Year 2017, no additional RTCs are required to offset breakdown emissions pursuant to Rule 2015(d)(3).

Table 3-4
Breakdown Emission Comparison for Compliance Year 2017

Emittent	Compliance Year 2017 Unused RTCs (tons)	Unmitigated Breakdown Emissions¹ (tons)	Remaining Compliance Year 2017 RTCs (tons)
NOx	1,732	0	1,732
SOx	431	0	431

¹ Data for unmitigated breakdown emissions (not counted against Allocation) as reported under APEP reports.

Impact of Changing Universe

As discussed in Chapter 1, no facilities were included or excluded from the NOx universe, no facilities were included or excluded from the SOx universe, and four facilities (four NOx only facilities and no NOx and SOx facility) shut down in Compliance Year 2017. Changes to the universe of RECLAIM facilities have the potential to impact emissions and the supply and demand of RTCs, and therefore, may impact RECLAIM emission reduction goals.

Existing facilities (defined by Rule 2000 as those with valid SCAQMD Permits to Operate issued prior to October 15, 1993 and that continued to be in operation or possess valid SCAQMD permits on October 15, 1993) that are not categorically excluded pursuant to Rule 200(i)(1) may choose to enter the program even though they do not meet the inclusion criteria. Existing facilities that are neither categorically excluded nor exempt pursuant to Rule 2001(i)(2) may also be included by SCAQMD if their facility-wide emissions increase to four tons or more per year of NOx or SOx or both. When one of these existing facilities enters the program, they are issued RTC allocations based on their operational history pursuant to the methodology prescribed in Rule 2002. Inclusions of existing facilities may affect demand more than supply because even though these facilities are issued RTCs based on their operational history, the amount may not be sufficient to offset their current or future operations. Overall, inclusions shift

the accounting of emissions from the universe of non-RECLAIM sources to the universe of RECLAIM sources without actually changing the overall emissions inventory within the South Coast Air Basin. Finally, inclusions change the rules and requirements that apply to the affected facilities. In Compliance Year 2017, no existing facility elected to opt into the RECLAIM universe, no facility was included into the RECLAIM universe based on the Rule 2001 threshold of actual NOx and/or SOx emissions greater than or equal to four tons per year, and no facility was included through the partial change of operator of an already existing RECLAIM facility.

Facilities that received all SCAQMD Permits to Operate on or after October 15, 1993 are defined by Rule 2000 as new facilities. Except as described above for categorically excluded and exempt facilities, new facilities can choose to enter RECLAIM or can be included due to actual NOx or SOx emissions in excess of four tons or more per year. New facilities are not issued RTCs based on operational history, but any external offsets provided by the facility are converted to RTCs. For Compliance Year 2017, no new facilities elected to opt into the RECLAIM universe or was included into the RECLAIM universe pursuant to the Rule 2001 threshold. When a new facility joins the RECLAIM universe, it is required to obtain sufficient RTCs to offset its NOx or SOx emissions. These RTCs must be obtained through the trading market and are not issued by SCAQMD to the facility (any external offsets previously provided by the facility are converted to RTCs). Such facilities increase the overall demand for the fixed supply of RTCs because they increase total RECLAIM emissions without increasing the total supply of RTCs. However, it should be noted that with respect to future facility inclusions, the Governing Board amended Rule 2001 – Applicability on January 5, 2018, which precluded the entry of any new or existing facility into the RECLAIM program.

The shutdown of a RECLAIM facility results in a reduction in actual emissions. Prior to the October 7, 2016 amendment of Rule 2002, shutdown facilities could retain its RTC holdings as an investment, transfer to another facility under common ownership, or trade on the market. Therefore, although the facility was no longer emitting, its RTCs could be used at another facility. Shutdown facilities had the opposite effect on the RTC market as did new facilities: the overall demand for RTCs was reduced while the supply remained constant. It should also be noted that, as discussed previously in Chapter 2, Rule 2002(i) as amended by the Governing Board in October 2016, requires the reduction of the RTC holdings of a facility that is listed in Tables 7 or 8 of Rule 2002 by an amount equivalent to the emissions above the most stringent BARCT level. As reported in Chapter 1, four RECLAIM facilities (four NOx-only facilities and no NOx/ and SOx facility) shut down permanently in Compliance Year 2017.

A facility is excluded from the RECLAIM universe if SCAQMD staff determines that the facility was included in the program in error. In such cases, both the emissions and the RTCs that were issued to the facility for future years are withdrawn, thereby having a neutral impact on the RTC supply. Exclusions have the reverse effect of inclusions, in that the accounting of emissions is shifted from the RECLAIM universe of sources to the non-RECLAIM universe of sources.

Compliance Year 2017 NOx and SOx audited emissions and initial Compliance Year 2017 allocations for facilities that were shut down, excluded, or included

into the program during Compliance Year 2017 are summarized in Tables 3-5 and 3-6.

Table 3-5
NOx Emissions Impact from the Changes in Universe (Tons)

Category	Compliance Year 2017 NOx Emissions (tons)	Initial Compliance Year 2017 NOx Allocations (tons)
Shutdown Facilities	3.34	18.13
Excluded Facilities	Not applicable	Not applicable
Included Facilities	Not applicable	Not applicable
RECLAIM Universe	7,246	8,978

Table 3-6
SOx Emissions Impact from the Changes in Universe (Tons)

Category	Compliance Year 2017 SOx Emissions (tons)	Initial Compliance Year 2017 SOx Allocations (tons)
Shutdown Facilities	Not applicable	Not applicable
Excluded Facilities	Not applicable	Not applicable
Included Facilities	Not applicable	Not applicable
RECLAIM Universe	2,043	2,474

Backstop Provisions

Rule 2015 requires that SCAQMD review the RECLAIM program and implement necessary measures to amend it whenever aggregate emissions exceed the aggregate allocations by five percent or more. Compliance Year 2017 aggregate NOx and SOx emissions were both below aggregate allocations as shown in Figures 3-1 and 3-2. Therefore, there is no need to initiate a program review due to emissions exceeding aggregate allocation in Compliance Year 2017.

CHAPTER 4

NEW SOURCE REVIEW ACTIVITY

Summary

The annual program audit assesses New Source Review (NSR) activity from RECLAIM facilities in order to ensure that RECLAIM is complying with federal NSR requirements and state no net increase (NNI) in emissions requirements while providing flexibility to facilities in managing their operations and allowing new sources into the program. In Compliance Year 2017, a total of five NO_x RECLAIM facilities had NSR NO_x emission increases, and no SO_x RECLAIM facilities had an NSR SO_x emission increase due to expansion or modification. Consistent with all prior compliance years, there were sufficient NO_x and SO_x RTCs available to allow for expansion, modification, and modernization by RECLAIM facilities.

RECLAIM is required to comply with federal NSR emissions offset requirements at a 1.2-to-1 offset ratio programmatically for NO_x emission increases and a 1-to-1 offset ratio for SO_x emission increases on a programmatic basis. In Compliance Year 2017, RECLAIM demonstrated federal equivalency with a programmatic NO_x offset ratio of 864-to-1 based on the compliance year's total unused allocations and total NSR emission increases for NO_x. There were no SO_x emission increases during the compliance year. RECLAIM inherently complies with the federally-required 1-to-1 SO_x offset ratio for any compliance year, provided aggregate SO_x emissions under RECLAIM are lower than or equal to aggregate SO_x allocations for that compliance year. As shown in Chapter 3, there was no programmatic SO_x exceedance during Compliance Year 2017. In fact, there was a surplus of SO_x RTCs. Therefore, RECLAIM more than complied with the federally-required SO_x offset ratio and further quantification of the SO_x offset ratio is unnecessary. Also, the NNI is satisfied by the program's 1-to-1 offset ratio. In addition, RECLAIM requires application of, at a minimum, California Best Available Control Technology (BACT), which is at least as stringent as federal Lowest Achievable Emission Rate (LAER) for major sources. The same BACT guidelines are used to determine applicable BACT to RECLAIM and non-RECLAIM facilities.

Background

Emissions increases from the construction of new or modified stationary sources in non-attainment areas are regulated by both federal NSR and state NNI requirements to ensure that progress toward attainment of ambient air quality standards is not hampered. RECLAIM is designed to comply with federal NSR

and state NNI requirements without hindering facilities' ability to expand or modify their operations¹.

Title 42, United States Code §7511a, paragraph (e), requires major sources in extreme non-attainment areas to offset emission increases of extreme non-attainment pollutants and their precursors at a 1.5-to-1 ratio based on potential to emit. However, if all major sources in the extreme non-attainment area are required to implement federal BACT, a 1.2-to-1 offset ratio may be used. Federal BACT is comparable to California's BARCT. SCAQMD requires all major sources to employ federal BACT/California BARCT at a minimum and, therefore, is eligible for a 1.2-to-1 offset ratio for ozone precursors (*i.e.*, NO_x and VOC). The federal offset requirement for major SO₂ sources is at least a 1-to-1 ratio, which is lower than the aforementioned 1.2-to-1 ratio. Even though the Basin is in attainment with SO₂ standards, SO_x is a precursor to PM_{2.5}. The Basin is in Serious Non-attainment with 2006 Federal 24-hours standard and 2012 Federal annual standard for PM_{2.5}. The applicable offset ratio for PM_{2.5} is at least 1-to-1, thus, the applicable offset ratio for SO_x is 1-to-1. Health and Safety Code §40920.5 requires "no net increase in emissions from new or modified stationary sources of non-attainment pollutants or their precursors" (*i.e.*, a 1-to-1 offset ratio on an actual emissions basis). All actual RECLAIM emissions are offset at a 1-to-1 ratio provided there is not a programmatic exceedance of aggregate allocations, thus satisfying the federal offset ratio for SO_x and state NNI requirements for both SO_x and NO_x. Annual RTC allocations follow a programmatic reduction to reflect changes in federal BACT/California BARCT and thereby comply with federal and state offset requirements.

RECLAIM requires, at a minimum, California BACT for all new or modified sources with increases in hourly potential to emit of RECLAIM pollutants. SCAQMD uses the same BACT guidelines in applying BACT to RECLAIM and non-RECLAIM facilities. Furthermore, BACT for major sources is at least as stringent as LAER (LAER is not applicable to minor facilities as defined in Rule 1302(t)). Thus, RECLAIM complies with both state and federal requirements regarding control technologies for new or modified sources. In addition to offset and BACT requirements, RECLAIM subjects RTC trades that are conducted to mitigate emissions increases over the sum of the facility's starting allocation and non-tradable/non-usable credits to trading zone restrictions to ensure net ambient air quality improvement within the sensitive zone established by Health and Safety Code §40410.5. Furthermore, facilities with actual RECLAIM emissions that exceed their initial allocation by 40 tons per year or more are required to analyze the potential impact of their emissions increases through air quality modeling.

Rule 2005 – New Source Review for RECLAIM requires RECLAIM facilities to provide (hold), prior to the start of operation, sufficient RTCs to offset the annual increase in potential emissions for the first year of operation at a 1-to-1 ratio.

¹ Federal NSR applies to federal major sources (sources with the potential to emit at least 10 tons of NO_x or 100 tons of SO_x per year for the South Coast Air Basin) and state NNI requirements apply to all NO_x sources and to SO_x sources with the potential to emit at least 15 tons per year in the South Coast Air Basin. RECLAIM's NSR provisions apply to all facilities in the program, including those not subject to federal NSR or state NNI. (Although the threshold for RECLAIM inclusions is four tons per year of NO_x or SO_x emissions, some RECLAIM facilities have actual emissions much less than 4 tons per year).

The same rule also requires all new RECLAIM facilities² and all other RECLAIM facilities that increase their annual allocations above the level of their starting allocations plus non-tradable/non-usable credits to provide sufficient RTCs to offset the annual potential emissions increase from new or modified source(s) at a 1-to-1 ratio at the commencement of each compliance year after the start of operation of the new or modified source(s). Although RECLAIM allows a 1-to-1 offset ratio for emissions increases, RECLAIM complies with the federal 1.2-to-1 offset requirement for NO_x on an aggregate basis as explained. This annual program audit report assesses NSR permitting activities for Compliance Year 2017 to verify that programmatic compliance of RECLAIM with federal and state NSR requirements has been maintained.

NSR Activity

Evaluation of NSR data for Compliance Year 2017 shows that RECLAIM facilities were able to expand and modify their operations while complying with NSR requirements. During Compliance Year 2017, a total of five NO_x RECLAIM facilities (three in Cycle 1 and two in Cycle 2) were issued permits to operate, which resulted in a total of 2,008 tons per year of NO_x emission increases from starting operations of new or modified sources. There were no SO_x NSR emission increases that resulted from starting operations of new or modified permitted sources. These emission increases were calculated pursuant to Rule 2005(d) – Emission Increase. As in previous years, there were adequate unused RTCs (NO_x: 1,732 tons, SO_x: 431 tons; see Chapter 3) in the RECLAIM universe available for use to offset emission increases at the appropriate offset ratios.

NSR Compliance Demonstration

RECLAIM is designed to programmatically comply with the federal NSR offset requirements. Meeting the NSR requirement (offset ratio of 1.2-to-1 for NO_x and at least 1-to-1 for SO_x) also demonstrates compliance with the state NNI requirements. Section 173 (c) of the federal Clean Air Act (CAA) states that only emissions reductions beyond the requirements of the CAA, such as federal Reasonably Available Control Technology (RACT), shall be considered creditable as emissions reductions for offset purposes. Since the initial allocations (total RTC supply in Compliance Year 1994) already met federal RACT requirements when the program was initially implemented, any emissions reductions beyond the initial allocations are available for NSR offset purposes until RACT becomes more stringent. The programmatic offset ratio calculations presented in the Annual RECLAIM Audit Reports for Compliance Years 1994 through 2004 relied upon aggregate Compliance Year 1994 allocations as representing RACT. However, staff recognizes that RACT may have become more stringent in the intervening years, so it may no longer be appropriate to calculate the programmatic offset ratio based upon aggregate 1994 allocations.

Aggregate allocations for each compliance year represent federal BACT, which is equivalent to local BARCT. Federal BACT is more stringent than federal RACT (*i.e.*, the best available control technology is more stringent than what is reasonably available), so staff started using current allocations (federal BACT) as a surrogate for RACT as the basis for calculating programmatic NO_x and SO_x

² New facilities are facilities that received all District Permits to Construct on or after October 15, 1993.

offset ratios in the annual program audit report for Compliance Year 2005 and is continuing to do so for NO_x in this report. This is a more conservative (*i.e.*, more stringent) approach than using actual RACT and is much more conservative than using aggregate Compliance Year 1994 allocations. The advantage of this approach is that, as long as the calculated NO_x offset ratio is at least 1.2-to-1, it provides certainty that RECLAIM has complied with federal and state offset requirements without the need to know exactly what RACT is for RECLAIM facilities. However, if this very conservative approach should ever fail to demonstrate that the aggregate NO_x offset ratio for any year is at least 1.2-to-1, that will not necessarily mean RECLAIM has not actually complied with the federally required 1.2-to-1 NO_x offset ratio. Rather it will indicate that further analysis is required to accurately identify RACT so that the actual offset ratio can be calculated and a compliance determination made.

Provided aggregate RECLAIM emissions do not exceed aggregate allocations, all RECLAIM emissions are offset at a ratio of 1-to-1. This leaves all unused allocations available to provide offsets beyond the 1-to-1 ratio for NSR emission increases. Unused allocations are based on all Cycle 1 and Cycle 2 RTCs of a given compliance year and the aggregate RECLAIM emissions for the selected time period. The NSR emission increase is the sum of emission increases due to permit activities at all RECLAIM facilities during the same compliance year. The aggregate potential RECLAIM offset ratios are expressed by the following formula:

$$\text{Offset Ratio} = (1 + \frac{\text{compliance year's total unused allocations}}{\text{total NSR emission increases}}) \text{-to-1}$$

As stated in the previous section under the title of “NSR Activity”, permits to operate issued to five RECLAIM facilities resulted in 2.008 tons of NO_x emission increase pursuant to Rule 2005(d). Additionally, as identified in Table 3-2 (Annual NO_x Emissions for Compliance Years 1994 through 2017), 1,732 tons of Compliance Year 2017 NO_x RTCs remained unused. Therefore, the Compliance Year 2017 NO_x programmatic offset ratio calculated from this methodology is 864-to-1 as shown below:

$$\text{NO}_x \text{ Offset Ratio} = (1 + \frac{1,732 \text{ tons}}{2.008 \text{ tons}}) \text{-to-1}$$

864-to-1

RECLAIM continues to generate sufficient excess emission reductions to provide a NO_x offset ratio greater than the 1.2-to-1 required by federal law. Since RECLAIM does not dedicate all unused RTCs to NSR uses in any given year, it does not actually provide an 864-to-1 offset ratio; but this analysis does demonstrate that RECLAIM provides more than sufficient unused RTCs to account for the 1.2-to-1 required offset ratio. This compliance with the federal offset requirements is built into the RECLAIM program through annual reductions of the allocations assigned to RECLAIM facilities and the subsequent allocation

adjustments adopted by the Governing Board to implement BARCT. The required offset ratio for SO_x is 1-to-1. Since RECLAIM facilities are required to secure, at a minimum, adequate RTCs to cover their actual emissions, the SO_x 1-to-1 offset ratio is met automatically provided there is no programmatic exceedance of aggregate SO_x allocations for that compliance year. As stated earlier in Chapter 3, there were 431 tons of excess (unused) SO_x RTCs for Compliance Year 2017. Since there were no SO_x emission increases during the compliance year, there is certainty that both the federally required SO_x offset ratio and the California NNI requirement for SO_x were satisfied.

BACT and modeling are also required for any RECLAIM facility that installs new equipment or modifies sources if the installation or modification results in an increase in emissions of RECLAIM pollutants. Furthermore, the RTC trading zone restrictions in Rule 2005 – New Source Review for RECLAIM, limit trades conducted to offset emission increases over the sum of the facility's starting allocation and non-tradable/non-usable credits to ensure net ambient air quality improvement within the sensitive zone, as required by state law.

The result of the review of NSR activity in Compliance Year 2017 shows that RECLAIM is in compliance with both state NNI and federal NSR requirements. SCAQMD staff will continue to monitor NSR activity under RECLAIM in order to assure continued progress toward attainment of ambient air quality standards without hampering economic growth in the Basin.

Modeling Requirements

Rule 2004, as amended in May 2001, requires RECLAIM facilities with actual NO_x or SO_x emissions exceeding their initial allocation in Compliance Year 1994 by 40 tons per year or more to conduct modeling to analyze the potential impact of the increased emissions. The modeling analysis is required to be submitted within 90 days of the end of the compliance year. For Compliance Year 2017, two RECLAIM facilities were subject to the 40 ton modeling requirement; one facility for NO_x emissions, and one for SO_x emissions.

This modeling is performed with an EPA approved air dispersion model to assess the impact of a facilities NO_x or SO_x emission increase on compliance with all applicable state and federal ambient air quality standards (AAQS). Air dispersion modeling submitted by each facility is reviewed by staff and revised as necessary to comply with SCAQMD's air dispersion modeling procedures including use of appropriate meteorological data for the facility location. Per Rule 2004 (q)(3), the modeling submitted by a facility must include source parameters and emissions for every major source located at the facility. For comparison against applicable state and federal AAQS, the predicted modeling impacts due to a facility's NO_x or SO_x emission increases are added to the highest background NO_x or SO_x concentration measured at the nearest ambient air monitoring station during the previous three years. Modeling runs are performed with worst-case emissions data for averaging periods that coincide with the averaging period of each applicable AAQS (e.g., 1-hr, 24-hr, annual).

The SO_x facility, which had an initial SO_x allocation in 1994 and exceed this initial allocation by more than 40 tons in Compliance Year 2017, submitted modeling that demonstrated that SO_x emissions from their major sources during 2017 will not cause an exceedance of any state or federal SO₂ AAQS. The NO_x

facility had an initial NO_x allocation in 1994 and exceeded this initial allocation by more than 40 tons in Compliance Year 2017. This facility submitted modeling that demonstrated that NO_x emissions from their major sources during 2017 will not cause an exceedance of any state or federal NO₂ AAQS.

CHAPTER 5

COMPLIANCE

Summary

Based on SCAQMD Compliance Year 2017 audit results, 266 of the 281 (95%) NOx RECLAIM facilities complied with their NOx allocations, and 28 of the 31 SOx facilities (90%) complied with their SOx allocations based on SCAQMD audit results. All three SOx facilities that exceeded their SOx allocations also exceeded their NOx allocations. So, fifteen facilities exceeded their allocations (12 facilities exceeded their NOx allocations, and three facilities exceeded their NOx and SOx allocations). The 15 facilities that exceeded their NOx allocations had aggregate NOx emissions of 565.3 tons and did not have adequate allocations to offset 164.0 tons (or 29.0%) of their combined emissions. The three facilities that exceeded their SOx allocations had total SOx emissions of 450.7 tons and did not have adequate allocations to offset 133.5 tons (or 29.6%). The NOx and SOx exceedance amounts are relatively small compared to the overall NOx and SOx allocations for Compliance Year 2017 (1.83% of total NOx allocations and 5.40% of total SOx allocations). The exceedances from these facilities did not impact the overall RECLAIM emission reduction goals. The overall RECLAIM NOx and SOx emission reduction targets and goals were met for Compliance Year 2017 (i.e., aggregate emissions for all RECLAIM facilities were well below aggregate allocations). Pursuant to Rule 2010(b)(1)(A), these facilities had their respective exceedances deducted from their annual allocations for the compliance year subsequent to the date of SCAQMD's determination that the facilities exceeded their Compliance Year 2017 allocations.

Background

RECLAIM facilities have the flexibility to choose among compliance options to meet their annual allocations by reducing emissions, trading RTCs, or a combination of both. However, this flexibility must be supported by standardized emission MRR requirements to ensure the reported emissions are real, quantifiable, and enforceable. As a result, detailed MRR protocols are specified in the RECLAIM regulation to provide accurate and verifiable emission reports.

The MRR requirements were designed to provide accurate and up-to-date emission reports. Once facilities install and complete certification of the required monitoring and reporting equipment, they are relieved from command-and-control rule limits and requirements subsumed under Rule 2001. Mass emissions from RECLAIM facilities are then determined directly by monitoring and reporting equipment for some sources and from data generated by monitoring equipment for others. If monitoring equipment fails to produce quality-assured data or the facility fails to file timely emissions reports, RECLAIM rules require emissions be determined by a rule-prescribed methodology known as Missing Data Procedures or "MDP." Depending on past performance of the monitoring equipment (i.e., availability of quality-assured data) and the duration of the missing data period, MDP use a tiered approach to calculate emissions. As availability of quality-assured data increases, the MDP-calculated emissions become more representative of the actual emissions, but when the availability of

quality-assured data is low, MDP calculations become more conservative and approach, to some extent, “worst case” assessments.

Allocation Compliance

Requirements

At the beginning of the RECLAIM program in 1994 or at the time a facility is included in the RECLAIM program, each RECLAIM facility is issued an annual allocation for each compliance year pursuant to methodology prescribed in Rule 2002. For a facility in existence prior to October 1993, it is issued allocations by SCAQMD based on its historical production rate. A facility without an operating history prior to 1994 receives no allocation and must purchase enough RTCs to cover the emissions for their operations, except facilities that have provided ERCs to offset emission increases prior to entering RECLAIM are issued RTCs generated by converting the surrendered ERCs to RTCs. Additionally, all facilities entering RECLAIM holding any ERCs generated at and held by the individual facility itself have those ERCs converted to RTCs and added to their allocated RTCs. Knowing their emission goals, RECLAIM facilities have the flexibility to manage their emissions in order to meet their allocations in the most cost-effective manner. Facilities may employ emission control technology or process changes to reduce emissions, buy RTCs, or sell unneeded RTCs.

Facilities may buy RTCs or sell excess RTCs at any time during the year in order to ensure that their emissions are covered. There is a thirty day reconciliation period commencing at the end of each of the first three quarters of each compliance year. In addition, after the end of each compliance year, there is a 60-day reconciliation period (instead of 30 days as at the end of the first three quarters) during which facilities have a final opportunity to buy or sell RTCs for that compliance year. These reconciliation periods are provided for facilities to review and correct their emission reports as well as securing adequate allocations. Each RECLAIM facility must hold sufficient RTCs in its allocation account to cover (or reconcile with) its quarterly as well as year-to-date emissions for the compliance year at the end of each reconciliation period. By the end of each quarterly and annual reconciliation period, each facility is required to certify the emissions for the preceding quarter and/or compliance year by submitting its Quarterly Certification of Emissions Reports (QCERs) and/or APEP report, respectively.

Compliance Audit

Since the beginning of the program, SCAQMD staff has conducted annual audits of each RECLAIM facility’s emission reports to ensure their integrity and reliability. All facilities that submitted emission reports during a compliance year are subject to compliance audits, even for those that are shutdown or have a change of operator. This results in additional facility audits over the number of active facilities in the universe at the end of a compliance year. For Compliance Year 2017, a total of 281 facility audits were completed. The audit process includes conducting field inspections to check process equipment, monitoring devices, and operational records. Additionally, emissions calculations are performed in order to verify emissions reported electronically to SCAQMD or submitted in QCERs and APEP reports. For Compliance Year 2017, these inspections revealed that some facilities did not obtain or record valid monitoring

data, failed to submit emission reports when due, made errors in quantifying their emissions (e.g., arithmetic errors), used incorrect emission and adjustment factors (e.g., bias adjustment factors), failed to correct fuel usage to standard conditions, used emission calculation methodologies not allowed under the rules, or failed to properly apply MDP. Appropriate compliance actions are also taken based on audit findings.

Whenever an audit revealed a facility's emissions to be in excess of its annual allocation, the facility was provided an opportunity to review the audit and to present additional data to further refine audit results. This extensive and rigorous audit process ensures valid and reliable emissions data.

Compliance Status

During this compliance year, a total of 15 RECLAIM facilities failed to reconcile their emissions (12 NOx-only facilities and three NOx-and-SOx facilities that exceeded both their NOx and SOx allocations). Ten of these 15 facilities (seven NOx-only facilities and all three NOx-and-SOx facilities) failed to acquire adequate RTCs to offset their reported emissions. Based on audit findings, eight NOx-only facilities and one NOx-and-SOx facility were found to have under-reported their emissions based on audit findings and didn't hold sufficient RTCs to reconcile their audited emissions. Among the 12 NOx-only facilities, two failed to submit the required QCERs and APEP report.

Among the nine facilities found to have under-reported their emissions, the reasons for the under-reporting include one or more of the following causes:

- mathematical error,
- failure to properly correct measured fuel flow to standard conditions defined as one atmosphere of pressure and a temperature of 60°F or 68°F provided that the same temperature is used throughout the facility, and
- failure to properly apply missing data procedures.

Overall, the Compliance Year 2017 allocation compliance rates for facilities are 95% (266 out of 281 facilities) for NOx RECLAIM and 90% (28 out of 31 facilities) for SOx RECLAIM¹. For purposes of comparison, the allocation compliance rates for Compliance Year 2016 were 95% and 97% for NOx and SOx RECLAIM facilities, respectively. In Compliance Year 2017, the 15 facilities that had NOx emissions in excess of their individual NOx allocations had 565.3 tons of NOx emissions and didn't have adequate RTCs to cover 164.0 of those tons (or 29.0% of their total emissions). The three SOx facilities that exceeded their SOx allocation had total SOx emissions of 450.7 tons and didn't have adequate allocations to offset 133.5 tons (or 29.6% of their total emissions). The NOx and SOx exceedance amounts are relatively small compared to the overall allocations for Compliance Year 2017 (1.83% of aggregate NOx allocations and 5.40% of aggregate SOx allocations). Pursuant to Rule 2010(b)(1)(A), all 15 facilities had their respective NOx or SOx Allocation exceedances deducted from

¹ Compliance rates for both NOx and SOx are based on 281 NOx and 31 SOx completed audits, respectively.

their annual emissions allocations for the compliance year subsequent to SCAQMD's determination that the facilities exceeded their Compliance Year 2017 allocations.

Impact of Missing Data Procedures

MDP was designed to provide a method for determining emissions when an emission monitoring system does not yield valid emissions. For major sources, these occurrences may be caused by failure of the monitoring systems, the data acquisition and handling systems, or by lapses in the Continuous Emissions Monitoring System (CEMS) certification period. Major sources are also required to use MDP for determining emissions whenever daily emissions reports are not submitted by the applicable deadline. When comparing actual emissions with a facility's use of substituted MDP emissions, the range of MDP emissions can vary from "more representative" to being overstated to reflect a "worst case"² scenario. For instance, an MDP "worst case" scenario may occur for major sources that fail to have their CEMS certified in a timely manner, and therefore, have no valid CEMS data that can be used for substitution. In other cases, where prior CEMS data is available, MDP is applied in tiers depending on the duration of missing data periods and the historical availability of monitoring systems. As the duration of missing data periods gets shorter and the historical availability of monitoring systems gets higher, the substitute data yielded by MDP becomes more representative of actual emissions³.

In addition to MDP for major sources, RECLAIM rules also define MDP for large sources and process units. These procedures are applicable when a process monitoring device fails or when a facility operator fails to record fuel usage or other monitored data (e.g., hours of operation). The resulting MDP emissions reports are reasonably representative of the actual emissions because averaged or maximum emissions from previous operating periods may be used. However, for extended missing data periods (more than two months for large sources or four quarters or more for process units) or when emissions data for the preceding year are unavailable, large source and process unit MDP are also based on maximum operation or worst case assumptions.

Based on APEP reports, 92 NO_x facilities and 15 SO_x facilities used MDP in reporting portions of their annual emissions during Compliance Year 2017. In terms of mass emissions, 3.8% of the total reported NO_x emissions and 6.3% of the total reported SO_x emissions in the APEP reports were calculated using MDP for Compliance Year 2017. Table 5-1 compares the impact of MDP on reported annual emissions for the last few compliance years to the second compliance year, 1995 (MDP was not fully implemented during Compliance Year 1994).

² Based on uncontrolled emission factor at maximum rated capacity of the source and 24 hours per day.

³ Based on averaged emissions during periods before and after the period for which data is not available.

Table 5-1
MDP Impact on Annual Emissions

Year	Percent of Reported Emissions Using Substitute Data*	
	NOx	SOx
1995	23.0% (65 / 6,070)	40.0% (12 / 3,403)
2010	7.0% (93 / 488)	6.1% (23 / 168)
2011	6.2% (94 / 435)	12.4% (19 / 328)
2012	7.5% (95 / 560)	4.5% (13 / 114)
2013	3.9% (107 / 287)	5.6% (15 / 113)
2014	3.3% (97 / 247)	3.0% (13 / 66)
2015	6.9% (98 / 502)	10.9% (14 / 229)
2016	3.9% (91 / 288)	6.2% (14 / 125)
2017	3.8% (92 / 273)	6.3% (15 / 126)

* Numbers in parenthesis that are separated by a slash represent the number of facilities that reported use of MDP in each compliance year and tons of emissions based on MDP.

Most of the issues associated with CEMS certifications were resolved prior to Compliance Year 1999. Since then, very few facilities have had to submit emissions reports based on the worst case scenario under MDP, which may considerably overstate the actual emissions from major sources. As an example, most facilities that reported emissions using MDP in 1995 did so because they did not have their CEMS certified in time to report actual emissions. Since their CEMS had no prior data, MDP called for an application of the most conservative procedure to calculate substitute data by assuming continuous uncontrolled operation at the maximum rated capacity of the facility's equipment, regardless of the actual operational level during the missing data periods. As a result, the calculations yielded substitute data that may have been much higher than the actual emissions. In comparison to the 65 NOx facilities implementing MDP in Compliance Year 1995, 92 facilities reported NOx emissions using MDP in Compliance Year 2017. Even though the number of facilities is higher than in 1995, the percentage of emissions reported using MDP during Compliance Year 2017 is much lower than it was in 1995 (4% compared to 23%). Additionally, in terms of quantity, NOx emissions determined by the use of MDP in Compliance Year 2017 were about 4% of those in Compliance Year 1995 (273 tons compared to 6,070 tons). Since most CEMS were certified and had been reporting actual emissions by the beginning of Compliance Year 2000, facilities that had to calculate substitute data were able to apply less conservative methods of calculating MDP for systems with high availability and shorter

duration missing data periods. Therefore, the substitute data they calculated for their missing data periods were more likely to be representative of the actual emissions.

It is important to note that portions of annual emissions attributed to MDP include actual emissions from the sources as well as the possibility of overestimated emissions. As shown in Table 5-1, approximately 4% of reported NO_x annual emissions were calculated using MDP in Compliance Year 2017. MDP may significantly overestimate emissions from some of the sources that operate intermittently and have low monitoring system availability, and/or lengthy missing data periods. Even though a portion of the 4% may be overestimated emissions due to conservative MDP, a significant portion (or possibly all) of it could have also been actual emissions from the sources. Unfortunately, the portion that represents the actual emissions cannot be readily estimated because the extent of this effect varies widely, depending on source categories and operating parameters, as well as the tier of MDP applied. For Compliance Year 2017, a significant portion of NO_x MDP emissions data (52%) and majority of SO_x MDP emissions data (86%) were reported by refineries, which tend to operate near maximum capacity for 24 hours per day and seven days per week, except for scheduled shutdowns for maintenance and barring major breakdowns or other unforeseeable circumstances. Missing data emissions calculated using the lower tiers of MDP (*i.e.*, 1N Procedure or 30-day maximum value) for facilities such as refineries that have relatively constant operation near their maximum operation are generally reflective of actual emissions because peak values are close to average values for these operations.

Emissions Monitoring

Overview

The reproducibility of reported RECLAIM facility emissions (and the underlying calculations)—and thereby the enforceability of the RECLAIM program—is assured through a tiered hierarchy of MRR requirements. A facility's equipment falls into an MRR category based on the kind of equipment it is and on the level of emissions produced or potentially produced by the equipment. RECLAIM divides all NO_x sources into major sources, large sources, process units, and equipment exempt from obtaining a written permit pursuant to Rule 219. All SO_x sources are divided into major sources, process units, and equipment exempt from obtaining a written permit pursuant to Rule 219. Table 5-2 shows the monitoring requirements applicable to each of these categories.

Table 5-2
Monitoring Requirements for RECLAIM Sources

Source Category	Major Sources (NOx and SOx)	Large Sources (NOx only)	Process Units and Rule 219 Equipment (NOx and SOx)
Monitoring Method	Continuous Emissions Monitoring System (CEMS) or Alternative CEMS (ACEMS)	Fuel Meter or Continuous Process Monitoring System (CPMS)	Fuel Meter, Timer, or CPMS
Reporting Frequency	Daily	Monthly	Quarterly

Continuous Emissions Monitoring System (CEMS)

Requirements

CEMS represent both the most accurate and the most reliable method of calculating emissions because they continuously monitor all of the parameters necessary to directly determine mass emissions of NOx and SOx. They are also the most costly method. These attributes make CEMS the most appropriate method for the largest emission-potential equipment in the RECLAIM universe, major sources.

Alternative Continuous Emissions Monitoring Systems (ACEMS) are alternatives to CEMS that are allowed under the RECLAIM regulation. These are devices that do not directly monitor NOx or SOx mass emissions; instead, they correlate multiple process parameters to arrive at mass emissions. To be approved for RECLAIM MRR purposes, ACEMS must be determined by SCAQMD to be equivalent to CEMS in relative accuracy, reliability, reproducibility, and timeliness.

Even though the number of major sources monitored by either CEMS or ACEMS represent 19% and 64% of all permitted RECLAIM NOx and SOx sources during Compliance Year 2017, respectively, reported emissions for Compliance Year 2017 revealed that 79% of all RECLAIM NOx emissions and 95% of all RECLAIM SOx emissions were determined by CEMS or ACEMS.

Compliance Status

By the end of calendar year 1999, almost all facilities that were required to have CEMS had their CEMS certified or provisionally approved. The only remaining uncertified CEMS are for sources that recently became subject to major source reporting requirements and sources that modified their CEMS. Typically, there will be a few new major sources each year. Therefore, there will continue to be a small number of CEMS in the certification process at any time.

Semiannual and Annual Assessments of CEMS

RECLAIM facilities conduct their Relative Accuracy Test Audit (RATA) of certified CEMS using private sector testing laboratories approved under SCAQMD's

Laboratory Approval Program (LAP). These tests are conducted either semiannually or annually, depending on the most recent relative accuracy value (the sum of the average differences and the confidence coefficient) for each source. The interval is annual only when all required relative accuracies obtained during an audit are 7.5% or less (*i.e.*, more accurate).

To verify the quality of CEMS, the RATA report compares the CEMS data to data taken simultaneously, according to approved testing methods (also known as reference methods), by a LAP-approved source testing contractor. In order to have a passing RATA, each of the following relative accuracy performance criteria must be met: The relative accuracy of the CEMS results relative to the reference method results must be within $\pm 20\%$ for pollutant concentration, $\pm 15\%$ for stack flow rate, and $\pm 20\%$ for pollutant mass emission rate. The RATAs also determine whether CEMS data must be adjusted for low readings compared to the reference method (bias adjustment factor), and by how much. The RATA presents two pieces of data, the CEMS bias (how much it differs from the reference method on the average) and the CEMS confidence coefficient (how variable that bias or average difference is).

Tables 5-3 and 5-4, respectively, summarize the 2017 and 2018 calendar years' passing rates for submitted RATAs of certified CEMS for NO_x and SO_x concentration, total sulfur in fuel gas concentrations, stack flow rate (in-stack monitors and F-factor based calculations), and NO_x and SO_x mass emissions. However, the tables do not include SO_x mass emissions calculated from total sulfur analyzer systems because such systems serve numerous devices, and therefore are not suitable for mass emissions-based RATA testing. As noted in the footnotes for each table, the calendar year 2017 and 2018 passing rates are calculated from RATA data submitted before January 9, 2018 and January 11, 2019, respectively, and may exclude some RATA data from the fourth quarter of each year.

Table 5-3
Passing Rates Based on RATAs of Certified CEMS in 2017¹

Concentration						Stack Flow Rate				Mass Emissions			
NO _x		SO ₂		Total ² Sulfur		In-Stack Monitor		F-Factor Based Calc.		NO _x		SO _x ³	
No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass
346	100	87	100	15	100	43	100	336	100	346	100	78	100

¹ The calculation of passing rates includes all RATAs submitted by January 9, 2018.

² Includes Cylinder Gas Audit (CGA) tests.

³ Does not include SO_x emissions calculated from total sulfur analyzers.

Table 5-4
Passing Rates Based on RATAs of Certified CEMS in 2018

Concentration						Stack Flow Rate				Mass Emissions			
NO _x		SO ₂		Total ² Sulfur		In-Stack Monitor		F-Factor Based Calc.		NO _x		SO _x ³	
No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass	No.	% Pass
247	100	67	100	15	100	36	100	247	100	246	100	79	100

¹ The calculation of passing includes all RATAs submitted by January 11, 2019.

² Includes Cylinder Gas Audit (CGA) tests.

³ Does not include SO_x emissions calculated from total sulfur analyzers.

As indicated in Tables 5-3 and 5-4, the passing rates for NO_x/SO₂ concentration, stack flow rate, and mass emissions were 100%. Since the inception of RECLAIM there have been significant improvements with respect to the availability of reliable calibration gas, the reliability of the reference method, and an understanding of the factors that influence valid total sulfur analyzer data.

Electronic Data Reporting of RATA Results

Facilities operating CEMS under RECLAIM are required to submit RATA results to SCAQMD. An electronic reporting system, known as Electronic Data Reporting (EDR), was set up to allow RATA results to be submitted electronically using a standardized format in lieu of the traditional formal source test reports in paper form. This system minimizes the amount of material the facility must submit to SCAQMD and also expedites reviews. In calendar year 2018, 96% of RATA results were submitted via EDR.

Non-Major Source Monitoring, Reporting, and Recordkeeping

Emissions quantified for large sources are primarily based on concentration limits or emission rates specified in the Facility Permit. Other variables used in the calculation of large source emissions are dependent on the specific process of the equipment, but generally include fuel usage, applicable dry F-factor, and the higher heating value of the fuel used, which are collectively used to calculate stack flow rate. RECLAIM requires large sources to be source tested within defined three-year windows in order to validate fuel meter accuracy and the equipment's concentration limit or emission rate. Since emissions quantification is fuel-based, the monitoring equipment required to quantify emissions is a non-resettable fuel meter that must be corrected to standard temperature and pressure. Large source emission data must be submitted electronically on a monthly basis.

Process unit emission calculations are similar to those of large sources in that emissions are quantified using the fuel-based calculations for either a concentration limit or an emission factor specified in the Facility Permit. Similar to large sources, variables used in emission calculations for process units are dependent on the equipment's specific process, but generally include fuel usage, applicable dry F-factor, and the higher heating value of the fuel used. Process units that are permitted with concentration limits are also required to be source-tested, but within specified five-year windows rather than three-year windows.

Emissions for equipment exempt from obtaining a written permit pursuant to Rule 219 are quantified using emission factors and fuel usage. No source testing is required for such exempt equipment. Since emissions calculations are fuel-based for both process units and exempt equipment, the monitoring equipment required to quantify emissions is a non-resettable fuel meter, corrected to standard temperature and pressure. Alternately, a timer may be used to record operational time. In such cases, fuel usage is determined based on maximum rated capacity of the source. Process units and exempt equipment must submit emission reports electronically on a quarterly basis.

Emissions Reporting

Requirements

RECLAIM uses electronic reporting technology to streamline reporting requirements for both facilities and SCAQMD, and to help automate compliance tracking. Under RECLAIM, facilities report their emissions electronically on a per device basis to SCAQMD's Central Station computer as follows:

- Major sources must use a Remote Terminal Unit (RTU) to telecommunicate emission data to SCAQMD's Central Station. The RTU collects data, performs calculations, generates the appropriate data files, and transmits the data to the Central Station. This entire process is required to be performed by the RTU on a daily basis without human intervention.
- Emission data for all equipment other than major sources may be transmitted via RTU or compiled manually and transmitted to the Central Station via modem. Alternatively, operators of non-major sources may use SCAQMD's internet based application, Web Access To Electronic Reporting System (WATERS) to transmit emission data for non-major sources via internet connection. The data may be transmitted directly by the facility or through a third party.

Compliance Status

The main concern for emission reporting is the timely submittal of accurate daily emissions reports from major sources. If daily reports are not submitted by the specified deadlines, RECLAIM rules may require that emissions from CEMS be ignored and the emissions be calculated using MDP. Daily emission reports are submitted by the RTU of the CEMS to SCAQMD's Central Station via telephone lines. Often communication errors between the two points are not readily detectable by facility operators. Undetected errors can cause facility operators to believe that daily reports were submitted when they were not received by the Central Station. In addition to providing operators a means to confirm the receipt of their reports, the WATERS application can also display electronic reports that were submitted to, and received by, the Central Station. This system helps reduce instances where MDP must be used for late or missing daily reports, because the operators can verify that the Central Station received their daily reports, and can resubmit them if there were communication errors.

Protocol Review

Even though review of MRR protocols was only required by Rule 2015(b)(1) for the first three compliance years of the RECLAIM program, staff continues to review the effectiveness of enforcement and MRR protocols. Based on such review, occasional revisions to the protocols may be needed to achieve improved measurement and enforcement of RECLAIM emission reductions, while minimizing administrative costs to RECLAIM facilities and SCAQMD.

Since the RECLAIM program was adopted, staff has produced rule interpretations and implementation guidance documents to clarify and resolve specific concerns about the protocols raised by RECLAIM participants or observed by SCAQMD staff. In situations where staff could not interpret existing rule requirements to adequately address the issues at hand, the protocols and/or rules have been amended.

CHAPTER 6

REPORTED JOB IMPACTS

Summary

This chapter compiles data as reported by RECLAIM facilities in their Annual Permit Emissions Program (APEP) reports. The analysis focuses exclusively on job impacts at RECLAIM facilities and determination if those job impacts were directly attributable to RECLAIM as reported by those facilities. Additional benefits to the local economy (e.g., generating jobs for consulting firms, source testing firms and CEMS vendors) attributable to the RECLAIM program, as well as factors outside of RECLAIM (e.g., the prevailing economic climate), impact the job market. However, these factors are not evaluated in this report. Also, job losses and job gains are strictly based on RECLAIM facilities' reported information. SCAQMD staff is not able to independently verify the accuracy of the reported job impact information.

According to the Compliance Year 2017 employment survey data gathered from APEP reports, RECLAIM facilities reported a net loss of 276 jobs, representing 0.26% of their total employment. One of the four RECLAIM facilities that shut down or ceased operations during Compliance Year 2017 cited RECLAIM as a factor contributing to the decision to shut down. No other facility reported job losses due to RECLAIM, during Compliance Year 2017.

Background

The APEP reports submitted by RECLAIM facilities include survey forms that are used to evaluate the socioeconomic impacts of the program. Facilities were asked to indicate the number of jobs at the beginning of Compliance Year 2017 and any changes in the number of jobs that took place during the compliance year in each of three categories: manufacturing, sale of products, and non-manufacturing. The numbers of jobs gained and lost reported by facilities in each category during the compliance year were tabulated.

Additionally, APEP reports ask facilities that shut down during Compliance Year 2017 to provide the reasons for their closure. APEP reports also allow facilities to indicate whether the RECLAIM program led to the creation or elimination of jobs during Compliance Year 2017.

Since data regarding job impacts and facility shutdowns are derived from the APEP reports, the submittal of these reports is essential to assessing the influence that the RECLAIM program has on these issues. The following discussion represents data obtained from APEP reports submitted to SCAQMD for Compliance Year 2017 and clarifying information collected by SCAQMD staff. SCAQMD staff is not able to verify the accuracy of the reported job impact information.

Job Impacts

Table 6-1 summarizes job impact data gathered from Compliance Year 2017 APEP reports and follow-up contacts with facilities. A total of 115 facilities reported 6,978 job gains, while 129 facilities reported a total of 7,254 job losses.

A net job loss was reported in one of the three categories: manufacturing (419), whereas net job gains were reported in the remaining two categories: sales of products (96), and non-manufacturing (47). Table 6-1 shows a total net loss of 276 jobs, which represents a net decrease of 0.26% at RECLAIM facilities during Compliance Year 2017.

Table 6-1
Job Impacts at RECLAIM Facilities for Compliance Year 2017

Description	Manufacture	Sales of Products	Non-Manufacture	Total ¹
Initial Jobs	39,547	703	66,568	106,818
Overall Job Gain	2,096	166	4,716	6,978
Overall Job Loss	2,515	70	4,669	7,254
Final Jobs	39,128	799	66,615	106,542
Net Job Change	-419	96	47	-276
Percent (%) Job Change	-1.06%	13.66%	0.07%	-0.26%
Facilities Reporting Job Gains	90	19	62	115
Facilities Reporting Job Losses	90	25	77	129

¹ The total number of facilities reporting job gains or losses does not equal the sum of the number of facilities reporting job changes in each category (*i.e.*, the manufacture, sales of products, and non-manufacture categories) due to the fact that some facilities may report changes under more than one of these categories.

Data for four RECLAIM facilities that were reported to have shut down or ceased operations in Compliance Year 2017 as listed in Appendix C are included in Table 6-1. One of these facilities consolidated their operations and moved out of state. Another facility claimed that their power purchase contract was not renewed which caused them to close and dismantle the facility. One facility stated the market conditions had changed and the demand for their services had declined to the point where the facility could not stay in business. The last facility claimed that they could not comply with RECLAIM requirements due to their small facility size. According to their APEP reports, the shutdown of these facilities led to a total loss of 128 jobs (91 manufacturing jobs, 2 sales job, and 35 non-manufacturing jobs).

One RECLAIM facility attributed job gains or losses to RECLAIM for Compliance Year 2017. The facility operator that listed RECLAIM as a reason for shutdown of their facility attributed the loss of 52 jobs to RECLAIM due to cost of meeting air pollution regulations (refer to Appendix E).

The analysis in this report only considers job gains and losses at RECLAIM facilities. It should be noted that this analysis of socioeconomic impacts based on APEP reports and follow-up interviews is focused exclusively on changes in employment that occurred at RECLAIM facilities. The effect of the program on the local economy outside of RECLAIM facilities, including consulting and source testing jobs, is not considered.

It is not possible to compare the impact of the RECLAIM program on the job market *vis-à-vis* a scenario without RECLAIM. This is because factors other than RECLAIM (*e.g.*, the prevailing economic climate), also impact the job market.

Furthermore, there is no way to directly compare job impacts attributed to RECLAIM to job impacts attributed to command-and-control rules that would have been adopted in RECLAIM's absence, because these command-and-control rules do not exist for these facilities. As mentioned previously, the effect of the RECLAIM program on the local economy outside of RECLAIM facilities (e.g., generating jobs for consulting firms, source testing firms and CEMS vendors) is also not considered in this report.

CHAPTER 7

AIR QUALITY AND PUBLIC HEALTH IMPACTS

Summary

Audited RECLAIM emissions have been in an overall downward trend since the program's inception. Compliance Year 2017 NOx emissions decreased slightly (1.1%) relative to Compliance Year 2016, and Compliance Year 2017 SOx emissions were 0.9% greater than the previous year. Quarterly calendar year 2017 NOx emissions fluctuated within seven percent of the mean NOx emissions for the year. Quarterly calendar year 2017 SOx emissions fluctuated within nine percent of the year's mean SOx emissions. There was no significant shift in seasonal emissions from the winter season to the summer season for either pollutant.

The California Clean Air Act (CCAA) required a 50% reduction in population exposure to ozone, relative to a baseline averaged over three years (1986 through 1988), by December 31, 2000. The Basin achieved the December 2000 target for ozone well before the deadline. In calendar year 2018, the per capita exposure to ozone (the average length of time each person is exposed) continued to be well below the target set for December 2000.

Air toxic health risk is primarily caused by emissions of certain volatile organic compounds (VOCs) and fine particulates, such as metals. RECLAIM facilities are subject to the same air toxic, VOC, and particulate matter regulations as other sources in the Basin. All sources are subject, where applicable, to the NSR rule for toxics (Rule 1401 and/or Rule 1401.1). In addition, new or modified sources with NOx or SOx emission increases are required to be equipped with BACT, which minimizes to the extent feasible the increase of NOx and SOx emissions. RECLAIM and non-RECLAIM facilities that emit toxic air contaminants are required to report those emissions to SCAQMD. Those emissions reports are used to identify candidates for the Toxics Hot Spots program (AB2588). This program requires emission inventories and, depending on the type and amount of emissions, facilities may be required to do public notice and/or prepare and implement a plan to reduce emissions. There is no evidence that RECLAIM has caused or allowed higher toxic risk in areas adjacent to RECLAIM facilities, than would occur under command-and-control, because RECLAIM facilities must comply with the same toxics rules as non-RECLAIM facilities.

Background

RECLAIM is designed to achieve the same, or higher level of, air quality and public health benefits as would have been achieved from implementation of the control measures and command-and-control rules that RECLAIM subsumed. Therefore, as a part of each annual program audit, SCAQMD staff evaluates per capita exposure to air pollution, toxic risk reductions, emission trends, and seasonal fluctuations in emissions. SCAQMD staff also generates quarterly emissions maps depicting the geographic distribution of RECLAIM emissions.

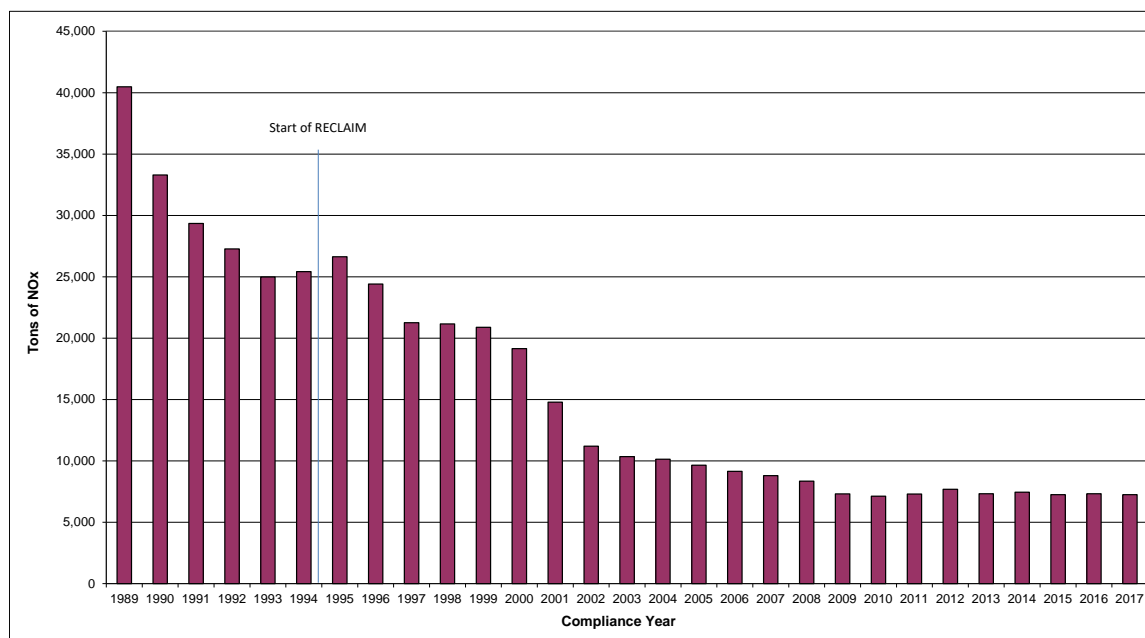
These maps are generated and posted quarterly on SCAQMD's website¹, and include all the quarterly emissions maps presented in previous annual program audit reports. This chapter addresses:

- Emission trends for RECLAIM facilities;
- Seasonal fluctuations in emissions;
- Per capita exposure to air pollution; and
- Toxics impacts.

Emission Trends for RECLAIM Sources

Concerns were expressed during program development that RECLAIM might cause sources to increase their aggregate emissions during the early years of the program due to perceived over-allocation of emissions. As depicted in Figures 7-1 and 7-2, which show NO_x and SO_x emissions from RECLAIM sources since 1989, the analysis of emissions from RECLAIM sources indicates that overall, RECLAIM emissions have been in a downward trend since program inception, and the emission increases during early years of RECLAIM that were anticipated by some did not materialize.

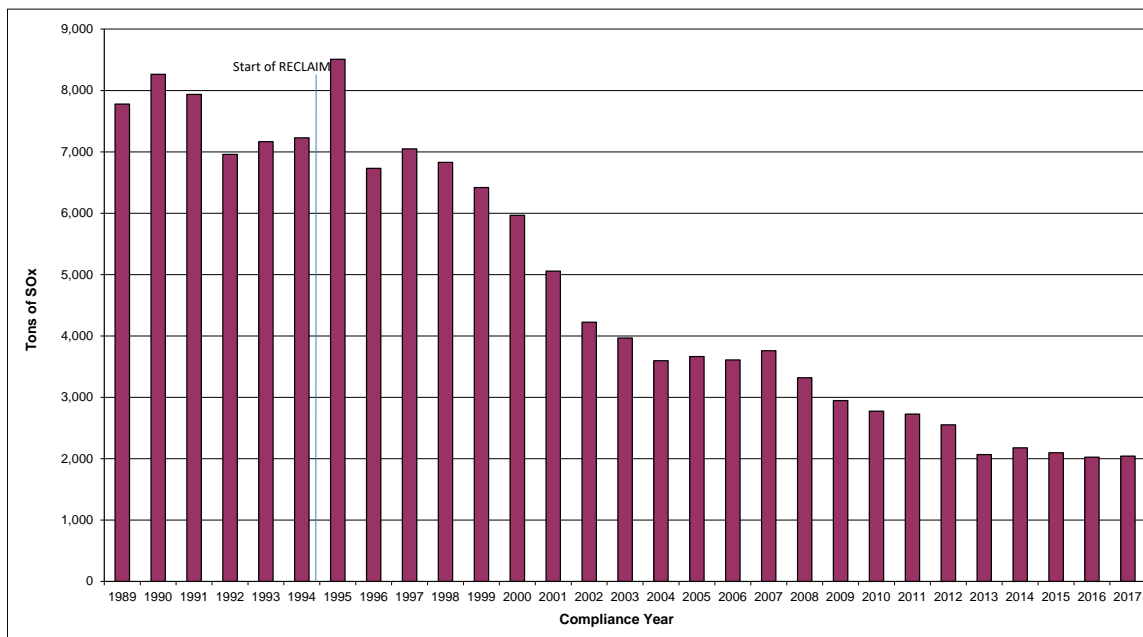
Figure 7-1
NO_x Emission Trend for RECLAIM Sources



Note: 1989-1993 emissions presented in this figure are the emissions from the facilities in the 1994 NO_x universe.

¹ Quarterly emission maps from 1994 to present can be found at:
<http://www.aqmd.gov/home/programs/business/about-reclaim/quarterly-emission-maps>.

Figure 7-2
SOx Emission Trend for RECLAIM Sources



Note: 1989-1993 emissions presented in this figure are the emissions from the facilities in the 1994 SOx universe.

NOx emissions decreased every year from Compliance Year 1995 through Compliance Year 2009, and the emissions from Compliance Year 2009 to Compliance Year 2017 have fluctuated within a narrow range (7,121 – 7,691 tons/year, or $< \pm 4\%$ of the mid-point). Since Compliance Year 1995, annual SOx emissions have also followed a general downward trend, except for slight increases in Compliance Years 1997, 2005, 2007, 2014, and 2017 compared to each respective previous compliance year. SOx emissions, similar to NOx emissions, have been fluctuating within a narrow range (2,024 – 2,176 tons/year or $< \pm 4\%$ of the mid-point) since 2013. As discussed in Chapter 3, NOx and SOx emissions are much lower than the programmatic goals (see Figures 3-1 and 3-2).

The increase in NOx and SOx emissions from Compliance Year 1994 to 1995 can be attributed to the application of MDP at the onset of RECLAIM implementation. RECLAIM provides for emissions from each major source's first year in the program to be quantified using an emission factor and fuel throughput (interim reporting) while they certify their CEMS. However, at the beginning of the program (Compliance Year 1994), many facilities had difficulties certifying their CEMS within this time frame, and consequently reported their Compliance Year 1995 emissions using MDP. As discussed in Chapter 5, since CEMS for these major sources had no prior data, MDP required the application of the most conservative procedure to calculate substitute data. As a result, the application of MDP during this time period yielded substitute data that may have been much higher than the actual emissions. In addition, emissions after Compliance Year 1995 decreased steadily through 2000. Thus, RECLAIM facilities did not increase their actual aggregate emissions during the early years of the program.

Seasonal Fluctuation in Emissions for RECLAIM Sources

Another concern during program development was that RECLAIM might cause facilities to shift emissions from the winter season into the summer ozone season and exacerbate poor summer air quality since RECLAIM emission goals are structured on an annual basis. To address this concern, “seasonal fluctuations” were added as part of the analysis required by Rule 2015. Accordingly, SCAQMD staff performed a two-part analysis of the quarterly variation in RECLAIM emissions:

1. In the first part, staff qualitatively compared the quarterly variation in Compliance Year 2017 RECLAIM emissions to the quarterly variation in emissions from the RECLAIM universe prior to the implementation of RECLAIM.
2. In the second part, staff analyzed quarterly audited emissions during calendar year 2017 and compared them with quarterly audited emissions for prior years to assess if there had been such a shift in emissions. This analysis is reflected in Figures 7-3 through 7-6.²

Quarterly emissions data from the facilities in RECLAIM before they were in the program is not available. Therefore, a quantitative comparison of the seasonal variation of emissions from these facilities while operating under RECLAIM with their seasonal emissions variation prior to RECLAIM is not feasible. However, a qualitative comparison has been conducted, as follows:

- NO_x emissions from RECLAIM facilities are dominated by refineries and power plants.
- SO_x emissions from RECLAIM facilities are especially dominated by refineries.
- Prior to RECLAIM, refinery production was generally highest in the summer months because more people travel during summer; thus, increasing demand for gasoline and other transportation fuels.
- Electricity generation prior to RECLAIM was generally highest in the summer months because of increased demand for electricity to drive air conditioning units.

Emissions from refineries (NO_x and SO_x) and from power plants (NO_x) are typically higher in the summer months, which was the trend prior to implementation of RECLAIM for the reasons described above. Therefore, provided a year’s summer quarter RECLAIM emissions do not exceed that year’s quarterly average emissions by a substantial amount, it can be concluded that, for that year, RECLAIM has not resulted in a shift of emissions to the summer months relative to the pre-RECLAIM emission pattern.

Figure 7-3 shows the 2017 mean quarterly NO_x emission level, which is the average of the aggregate audited emissions for each of the four quarters, and the 2017 audited quarterly emissions. Figure 7-4 compares the 2017 quarterly NO_x emissions with the quarterly emissions from 2006 through 2016. During calendar year 2017, quarterly NO_x emissions varied from four percent below the mean in

² Data used to generate these figures were derived from audited data. Similar figures for calendar years 1994 through 2007 in previous annual reports were generated from a combination of audited and reported data available at the time the reports were written.

the second quarter (April through June) to about seven percent above the mean in the third quarter (July through September). Figure 7-4 shows that the calendar year 2017 quarterly emissions profile is consistent with previous years under RECLAIM, with calendar year 2013 being the only notable exception. Figures 7-3 and 7-4, along with the qualitative analysis performed above, show that in calendar year 2017 there has not been a significant shift in NOx emissions from the winter months to the summer months.

Figure 7-3
Calendar Year 2017 NOx Quarterly Emissions

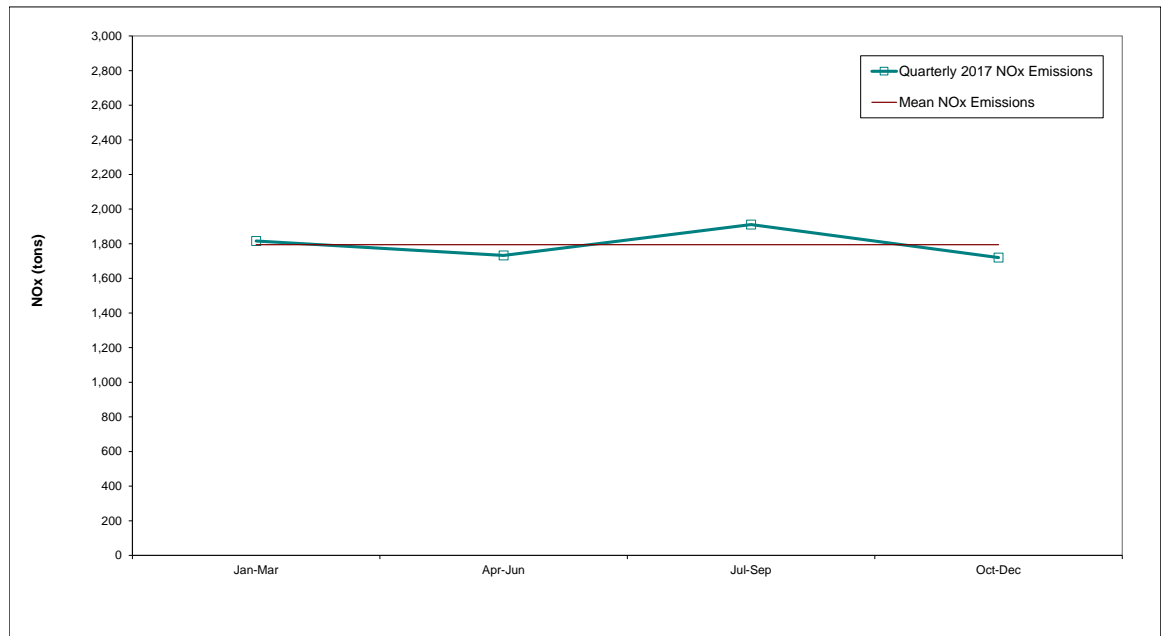
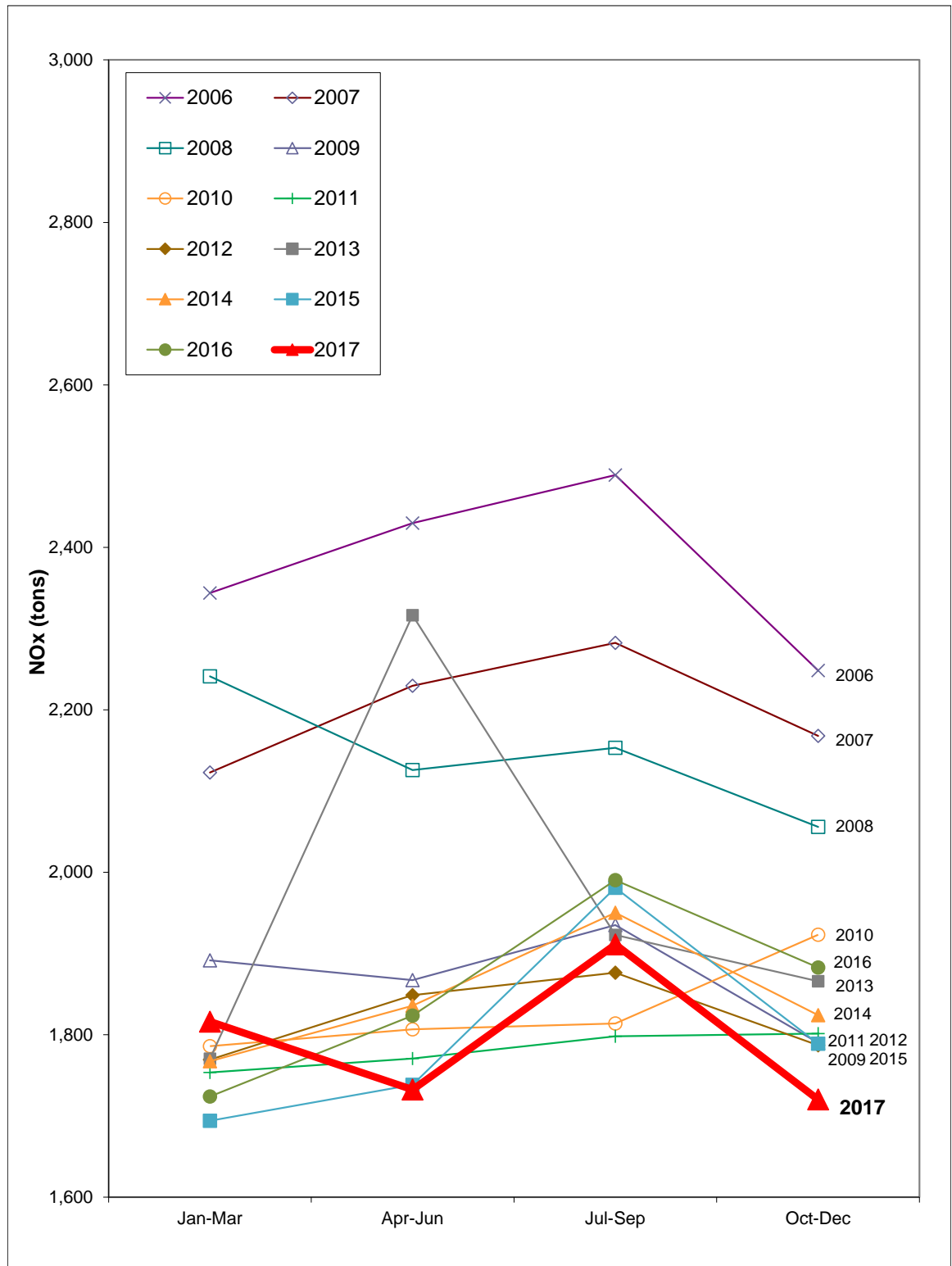


Figure 7-4
Quarterly NOx Emissions from Calendar Years 2006 through 2017



Similar to Figure 7-3 and 7-4 for NO_x quarterly emissions, Figure 7-5 presents the 2017 mean quarterly SO_x emissions and the 2017 audited quarterly emissions, while Figure 7-6 compares the 2017 quarterly SO_x emissions with the quarterly emissions from 2006 through 2016. Figure 7-5 shows that quarterly SO_x emissions during calendar year 2017 varied from four percent below the mean in the first quarter (January to March) to about nine percent above the mean in the third quarter (July to September). Figure 7-6 shows that the calendar year 2017 quarterly emissions profile is roughly consistent with previous years under RECLAIM. Both Figures 7-5 and 7-6, along with the qualitative analysis performed above, show that in calendar year 2017 there was not a significant shift in SO_x emissions from the winter months to the summer months.

Figure 7-5
Calendar Year 2017 SO_x Quarterly Emissions

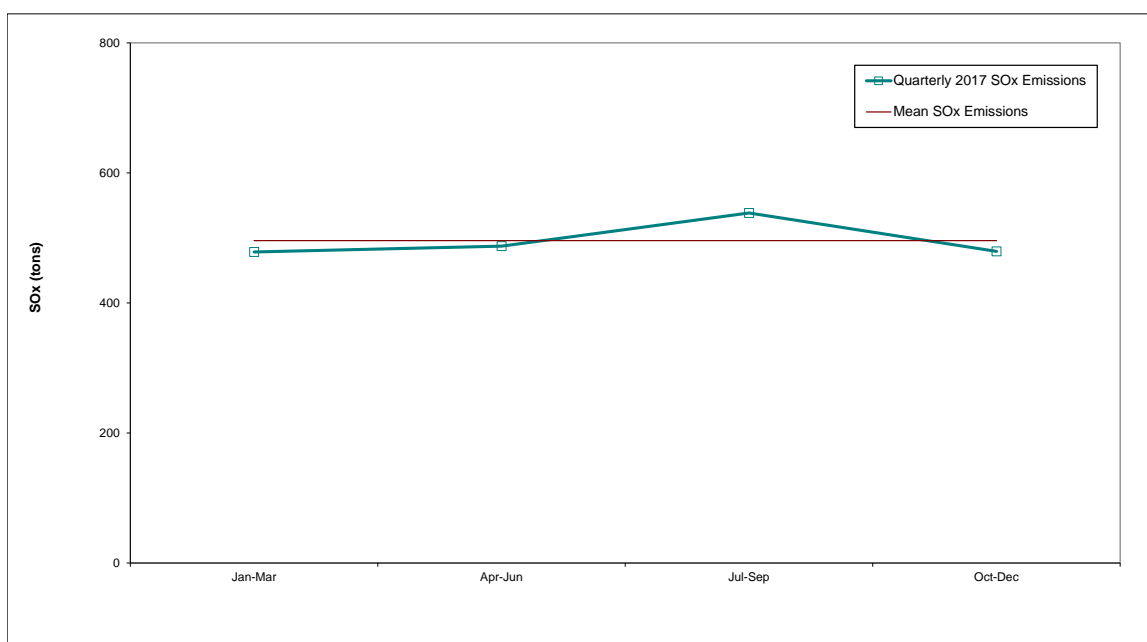
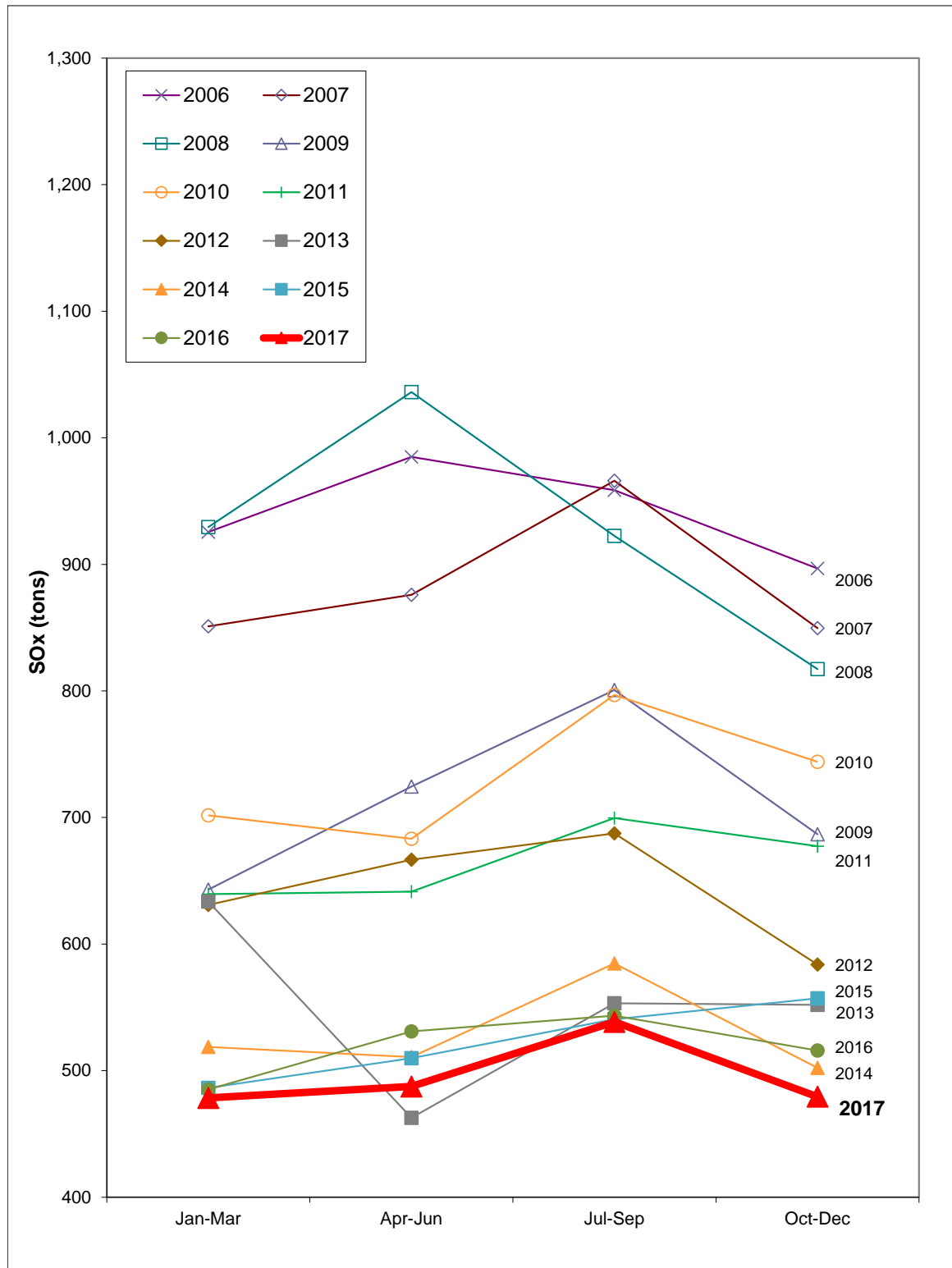


Figure 7-6
Quarterly SOx Emissions from Calendar Years 2006 through 2017



Per Capita Exposure to Pollution

The predicted effects of RECLAIM on air quality and public health were thoroughly analyzed through modeling during program development. The results were compared to the projected impacts from continuing traditional command-and-control regulations and to implementing control measures in the 1991 AQMP. One of the criteria examined in the analysis was per capita population exposure.

Per capita population exposure reflects the length of time each person is exposed to unhealthful air quality. The modeling performed in the program development analysis projected that the reductions in per capita exposure under RECLAIM in calendar year 1994 would be nearly identical to the reductions projected for implementation of the control measures in the 1991 AQMP, and the reductions resulting from RECLAIM would be greater in calendar years 1997 and 2000. As reported in previous annual reports, actual per capita exposures to ozone for 1994 and 1997 were below the projections.

As part of the Children's Environmental Health Protection Act that was passed in 1999, and in consultation with the Office of Environmental Health Hazard Assessment (OEHHA), CARB is to "review all existing health-based ambient air quality standards to determine whether these standards protect public health, including infants and children, with an adequate margin of safety." As a result of that requirement, CARB adopted a new 8-hour ozone standard (0.070 ppm), which became effective May 17, 2006, in addition to the 1-hour ozone standard (0.09 ppm) already in place. Table 7-1 shows the number of days that both the state 8-hour ozone standard of 0.070 ppm and the 1-hour standard of 0.09 ppm were exceeded.

In July 1997, the USEPA established an ozone National Ambient Air Quality Standard (NAAQS) of 0.085 ppm based on an 8-hour average measurement. As part of the Phase I implementation that was finalized in June 2004, the federal 1-hour ozone standard (0.12 ppm) was revoked effective June 2005. Effective May 27, 2008, the 8-hour NAAQS for ozone was reduced to 0.075 ppm. Table 7-1 shows monitoring results based on this 8-hour federal standard. Effective December 28, 2015, the 8-hour NAAQS for ozone was further reduced to 0.070 ppm, the level of the current California Ambient Air Quality Standard. Table 7-1 shows that the Basin exceeded both the newer 8-hour federal 0.07 ppm standard and the state 0.07 ppm standard by 141 days in 2018. The number of days in exceedance of the federal and state standards are the same this year, although they were not last year. A difference could occur again in the future due to the differing language and methods for deriving exceedance days in the federal and state rules.

Table 7-1 summarizes ozone data for calendar years 2001 through 2018 in terms of the number of days that exceeded the state's 1-hour and 8-hour ozone standards, the 2008 and 2015 federal ambient 8-hour ozone standard, and both the Basin's maximum 1-hour and 8-hour ozone concentrations in each calendar year. This table shows that the number of days that exceeded each standard in 2018 decreased when compared to 2017. The data shows the number of days in exceedance of most of these standards has grown from 2015 to 2017 after a drop from 2014. This upward trend has been reversed in 2018. Table 7-1 also shows, however, that while the Basin Maximum 8-hour ozone concentration has

gone up slightly, the Basin Maximum 1-hour ozone concentration dropped sharply relative to last year. The Basin Maximum 1-hour ozone concentration in 2018 was the lowest it has been for at least the last 18 years.

Table 7-1
Summary of Ozone Data

Year	Days exceeding state 1-hour standard (0.09 ppm)	Days exceeding state 8-hour standard (0.07 ppm)	Days exceeding old federal 8-hour standard (0.075 ppm)	Days exceeding new federal 8-hour standard (0.07 ppm)	Basin Maximum 1-hour ozone concentration (ppm)	Basin Maximum 8-hour ozone concentration (ppm)
2001	121	156	132	N/A	0.191	0.146
2002	118	149	135	N/A	0.169	0.148
2003	133	161	141	N/A	0.216	0.200
2004	110	161	126	N/A	0.163	0.148
2005	111	142	116	N/A	0.163	0.145
2006	102	121	114	N/A	0.175	0.142
2007	99	128	108	N/A	0.171	0.137
2008	98	136	121	N/A	0.176	0.131
2009	100	131	113	N/A	0.176	0.128
2010	83	128	109	N/A	0.143	0.123
2011	94	127	107	N/A	0.160	0.136
2012	97	140	111	N/A	0.147	0.112
2013	92	123	106	N/A	0.151	0.122
2014	76	134	93	N/A	0.142	0.114
2015	72	116	83	113	0.144	0.127
2016	85	132	105	132	0.164	0.122
2017	109	150	122	145	0.158	0.136
2018	86	141	109	141	0.125	0.142

The CCAA, which was enacted in 1988, established targets for reducing overall population exposure to severe non-attainment pollutants in the Basin—a 25% reduction by December 31, 1994, a 40% reduction by December 31, 1997, and a 50% reduction by December 31, 2000 relative to a calendar years' 1986-88 baseline. These targets are based on the average number of hours a person is exposed ("per capita exposure"³) to ozone concentrations above the state 1-hour standard of 0.09 ppm. Table 7-2 shows the 1986-88 baseline per capita exposure, the actual per capita exposures each year since 1994 (RECLAIM's

³ SCAQMD staff divides the air basin into a grid of square cells and interpolates recorded ozone data from ambient air quality monitors to determine ozone levels experienced in each of these cells. The total person-hours in a county experiencing ozone higher than the state ozone standard is determined by summing over the whole county the products of the number of hours exceeding the state ozone standard per grid cell with the number of residents in the corresponding cell. The per capita ozone exposures are then calculated by dividing the sum of person-hours by the total population within a county. Similar calculations are used to determine the Basin-wide per capita exposure by summing and dividing over the whole Basin.

initial year), and the 1997 and 2000 targets set by the CCAA for each of the four counties in the district and the Basin overall. As shown in Table 7-2, the CCAA reduction targets were achieved as early as 1994 (actual 1994 Basin per capita exposure was 37.6 hours, which is below the 2000 target of 40.2 hours). The per capita exposure continues to remain much lower than the CCAA targets. For calendar year 2018, the actual per capita exposure for the Basin was 1.97 hours, which represents a 97.6% reduction from the 1986-88 baseline level.

Table 7-2**Per Capita Exposure to Ozone above the State One-Hour Standard of 0.09 ppm (hours)**

Calendar Year	Basin	Los Angeles	Orange	Riverside	San Bernardino
1986-88 baseline ¹	80.5	75.8	27.2	94.1	192.6
1994 actual	37.6	26.5	9	71.1	124.9
1995 actual	27.7	20	5.7	48.8	91.9
1996 actual	20.3	13.2	4	42.8	70
1997 actual	5.9	3	0.6	13.9	24.5
1998 actual	12.1	7.9	3.1	25.2	40.2
2000 actual	3.8	2.6	0.7	8.5	11.4
2001 actual	1.73	0.88	0.15	6	5.68
2002 actual	3.87	2.16	0.13	11.12	12.59
2003 actual	10.92	6.3	0.88	20.98	40.21
2004 actual	3.68	2.26	0.50	6.82	12.34
2005 actual	3.11	1.43	0.03	6.06	12.54
2006 actual	4.56	3.08	0.68	8.02	13.30
2007 actual	2.90	1.50	0.35	4.65	10.53
2008 actual	4.14	2.04	0.26	7.50	14.71
2009 actual	2.87	1.54	0.08	3.88	10.54
2010 actual	1.18	0.38	0.11	2.45	4.48
2011 actual	2.10	0.85	0.02	3.46	8.13
2012 actual	2.37	1.05	0.05	2.59	9.78
2013 actual	1.31	0.52	0.07	1.61	5.50
2014 actual	1.84	1.26	0.29	1.47	6.02
2015 actual	1.96	0.76	0.10	2.14	8.47
2016 actual	2.64	1.14	0.07	2.19	11.56
2017 actual	4.94	2.90	0.14	4.01	18.78
2018 actual	1.97	0.90	0.14	2.37	7.79
1997 target ²	48.3	45.5	16.3	56.5	115.6
2000 target ³	40.2	37.9	13.6	47	96.3

¹ Average over three years, 1986 through 1988.

² 60% of the 1986-88 baseline exposures.

³ 50% of the 1986-88 baseline exposures.

Table 7-2 shows that actual per capita exposures during all the years mentioned were well under the 1997 and 2000 target exposures limits. It should also be noted that air quality in the Basin is a complex function of meteorological conditions and an array of different emission sources, including mobile, area, RECLAIM stationary sources, and non-RECLAIM stationary sources. Therefore, the reduction of per capita exposure beyond the projected level is not necessarily wholly attributable to implementation of the RECLAIM program in lieu of the command-and-control regulations.

Toxic Impacts

Based on a comprehensive toxic impact analysis performed during program development, it was concluded that RECLAIM would not result in any significant impacts on air toxic emissions. Nevertheless, to ensure that the implementation of RECLAIM does not result in adverse toxic impacts, each annual program audit is required to assess any increase in the public health exposure to air toxics potentially caused by RECLAIM.

One of the safeguards to ensure that the implementation of RECLAIM does not result in adverse air toxic health impacts is that RECLAIM sources are subject to the same air toxic statutes and regulations (e.g., SCAQMD Regulation XIV, State AB 2588, State Air Toxics Control Measures, Federal National Emissions Standards for Hazardous Air Pollutants, etc.) as other sources in the Basin. Additionally, air toxic health risk is primarily caused by emissions of VOCs and fine particulates such as certain metals. VOC sources at RECLAIM facilities are subject to source-specific command-and-control rules the same way as are non-RECLAIM facilities, in addition to the toxics requirements described above. Sources of fine particulates and toxic metal emissions are also subject to the above-identified regulations pertaining to toxic emissions. Moreover, new or modified RECLAIM sources with NO_x or SO_x emission increases are also required to be equipped with BACT, which minimizes to the extent feasible NO_x and SO_x emissions, which are precursors to particulate matter.

There have been concerns raised that trading RTCs could allow for higher production at a RECLAIM facility, which may indirectly cause higher emissions of toxic air contaminants, and thereby make the health risk in the vicinity of the facility worse. Other SCAQMD rules and programs for toxic air contaminants apply to facilities regardless of them being in RECLAIM or under traditional command and control rules. Emission increases at permit units are subject to new source review. RECLAIM facilities must also comply with any applicable Regulation XIV rules for toxics. Permits generally include limiting throughput conditions for new source review or applicable source specific rules. AB2588 and Rule 1402 could also be triggered based on risk, which would require the facility to take appropriate risk reduction measures.

Under the AER program, facilities that emit either: 1) four tons per year or more of VOC, NO_x, SO_x, or PM, or 100 tons per year or more of CO; or 2) any one of 24 toxic air contaminants (TACs) and ozone depleting compounds (ODCs) emitted above specific thresholds (Rule 301 Table IV), are required to report their emissions annually to SCAQMD. Beginning with the FY 2000-01 reporting cycle, toxics emission reporting for the AB2588 Program was incorporated into SCAQMD's AER Program. The data collected in the AER program is used to determine which facilities will be required to take further actions under the AB2588 Hot Spots Program.

Facilities in the AB2588 Program are required to submit a comprehensive toxics inventory, which is then prioritized using Board-approved procedures⁴ into one of three categories: low, intermediate, or high priority. Facilities ranked with low priority are exempt from future reporting. Facilities ranked with intermediate

⁴ The toxics prioritization procedures can be found at: <http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588>.

priority are classified as District tracking facilities, which are then required to submit a complete toxics inventory once every four years. In addition to reporting their toxic emissions quadrennially, facilities designated as high priority are required to submit a health risk assessment (HRA) to determine their impacts to the surrounding community.

According to SCAQMD's 2017 Annual Report on the AB2588 Air Toxics "Hot Spots" program⁵, staff has reviewed and approved 339 facility HRAs as of the end calendar of year 2017. About 95% of the facilities have cancer risks below 10 in a million and 96% of the facilities have acute and chronic non-cancer hazard indices less than 1. Facilities with cancer risks above 10 in a million or a non-cancer hazard index above 1 are required to issue public notices informing the community. A public meeting is held during which SCAQMD discusses the health risks from the facility. SCAQMD has conducted such public notification meetings for 55 facilities under the AB2588 Program.

The Board has also established the following action risk levels in Rule 1402 – Control of Toxic Air Contaminants from Existing Sources: a cancer burden of 0.5, a cancer risk of 25 in a million, and a hazard index of 3.0. Facilities above any of the action risk levels must reduce their risks below the action risk levels within three years. To date, 27 facilities have been required to reduce risks and all of these facilities have reduced risks well below the action risk levels mandated by Rule 1402.

The impact of the above rules and measures are analyzed in Multiple Air Toxic Exposure Studies (MATES), which SCAQMD staff conducts periodically to assess cumulative air toxic impacts to the residents and workers of southern California. The fourth version of MATES (*i.e.*, MATES IV) was conducted over a one year period from July 2012 to June 2013, and the final MATES IV report was released on May 1, 2015⁶. Monitoring conducted at that time indicated that the basin-wide population-weighted air toxics exposure was reduced by 57% since MATES III (conducted from April 2004 to March 2006). The results of these recent MATES studies continue to show that the region-wide cumulative air toxic impacts on residents and workers in southern California have been declining. Therefore, staff has not found any evidence that would suggest that the substitution of NO_x and SO_x RECLAIM for the command-and-control rules and the measures RECLAIM subsumes caused a significant increase in public exposure to air toxic emissions relative to what would have happened if the RECLAIM program was not implemented.

SCAQMD has initiated a MATES V study and staff began air toxics measurements at 10 fixed stations in early 2018. The advanced monitoring components also began in 2018, and included flight measurements, mobile monitoring and optical remote sensing technologies. SCAQMD staff will work with communities to implement sensor networks for enhanced local-scale data. The advanced monitoring components focus mainly on refinery emissions and potential community impacts, but also include other air pollution sources that are located close to communities. Staff has been gathering supplemental data for the

⁵ The 2017 AB2588 Annual Report can be found at: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588annualreport_080418.pdf?sfvrsn=6.

⁶ The Final MATES IV Report can be found at: <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf>.

emissions inventory and has begun developing the modeling platform for the air toxics health risk modeling, which will be performed once data is available. Staff will continue to monitor and assess toxic impacts as part of future annual program audits.

APPENDIX A

RECLAIM UNIVERSE OF SOURCES

The RECLAIM universe of active sources as of the end of Compliance Year 2017 is provided below.

Facility ID	Cycle	Facility Name	Program
800088	2	3M COMPANY	NOx
23752	2	AEROCRAFT HEAT TREATING CO INC	NOx
115394	1	AES ALAMITOS, LLC	NOx
115389	2	AES HUNTINGTON BEACH, LLC	NOx/SOx
115536	1	AES REDONDO BEACH, LLC	NOx
148236	2	AIR LIQUIDE LARGE INDUSTRIES U.S., LP	NOx/SOx
3417	1	AIR PROD & CHEM INC	NOx
101656	2	AIR PRODUCTS AND CHEMICALS, INC.	NOx
5998	1	ALL AMERICAN ASPHALT	NOx
114264	1	ALL AMERICAN ASPHALT	NOx
3704	2	ALL AMERICAN ASPHALT, UNIT NO.01	NOx
176708	2	ALTAGAS POMONA ENERGY INC.	NOx
800196	2	AMERICAN AIRLINES, INC.	NOx
184958	1	BRONCS INC. DBA WEST COAST TEXTILES	NOx
185145	2	9W HALO WESTERN OPCP LP DBA ANGELICA	NOx
185146	2	9W HALO WESTERN OPCP L.P. D/B/A ANGELICA	NOx
16642	1	ANHEUSER-BUSCH LLC., (LA BREWERY)	NOx/SOx
117140	2	AOC, LLC	NOx
124619	1	ARDAGH METAL PACKAGING USA INC.	NOx
174406	1	ARLON GRAPHICS LLC	NOx
12155	1	ARMSTRONG FLOORING INC	NOx
122666	2	A'S MATCH DYEING & FINISHING	NOx
183832	2	AST TEXTILE GROUP, INC.	NOx
181510	1	AVCORP COMPOSITE FABRICATION, INC	NOx
117290	2	B BRAUN MEDICAL, INC	NOx
800016	2	BAKER COMMODITIES INC	NOx
800205	2	BANK OF AMERICA NT & SA, BREA CENTER	NOx
40034	1	BENTLEY PRINCE STREET INC	NOx
166073	1	BETA OFFSHORE	NOx
155474	2	BICENT (CALIFORNIA) MALBURG LLC	NOx

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Facility ID	Cycle	Facility Name	Program
132068	1	BIMBO BAKERIES USA INC	NOx
1073	1	BORAL ROOFING LLC	NOx
150201	2	BREITBURN OPERATING LP	NOx
174544	2	BREITBURN OPERATING LP	NOx
25638	2	BURBANK CITY, BURBANK WATER & POWER	NOx
128243	1	BURBANK CITY,BURBANK WATER & POWER,SCPPA	NOx
800344	1	CALIFORNIA AIR NATIONAL GUARD, MARCH AFB	NOx
22607	2	CALIFORNIA DAIRIES, INC	NOx
138568	1	CALIFORNIA DROP FORGE, INC	NOx
800181	2	CALIFORNIA PORTLAND CEMENT CO	NOx/SOx
148896	2	CALIFORNIA RESOURCES PRODUCTION CORP	NOx
148897	2	CALIFORNIA RESOURCES PRODUCTION CORP	NOx
151899	2	CALIFORNIA RESOURCES PRODUCTION CORP	NOx
46268	1	CALIFORNIA STEEL INDUSTRIES INC	NOx
107653	2	CALMAT CO	NOx
107654	2	CALMAT CO	NOx
107655	2	CALMAT CO	NOx
107656	2	CALMAT CO	NOx
153992	1	CANYON POWER PLANT	NOx
94930	1	CARGILL INC	NOx
22911	2	CARLTON FORGE WORKS	NOx
118406	1	CARSON COGENERATION COMPANY	NOx
141555	2	CASTAIC CLAY PRODUCTS, LLC	NOx
14944	1	CENTRAL WIRE, INC.	NOx/SOx
42676	2	CES PLACERITA INC	NOx
148925	1	CHERRY AEROSPACE	NOx
800030	2	CHEVRON PRODUCTS CO.	NOx/SOx
56940	1	CITY OF ANAHEIM/COMB TURBINE GEN STATION	NOx
172077	1	CITY OF COLTON	NOx
129810	1	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	NOx
139796	1	CITY OF RIVERSIDE PUBLIC UTILITIES DEPT	NOx
164204	2	CITY OF RIVERSIDE, PUBLIC UTILITIES DEPT	NOx
14502	2	VERNON PUBLIC UTILITIES	NOx
184849	2	CLOUGHERTY PACKING, LLC	NOx
182561	1	COLTON POWER, LP	NOx
182563	1	COLTON POWER, LP	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
38440	2	COOPER & BRAIN - BREA	NOx
126536	1	CPP – POMONA	NOx
50098	1	D&D DISPOSAL INC, WEST COAST RENDERING CO	NOx
63180	1	DARLING INGREDIENTS INC.	NOx
3721	2	DART CONTAINER CORP OF CALIFORNIA	NOx
7411	2	DAVIS WIRE CORP	NOx
143738	2	DCOR LLC	NOx
143739	2	DCOR LLC	NOx
143740	2	DCOR LLC	NOx
143741	1	DCOR LLC	NOx
47771	1	DELEO CLAY TILE CO INC	NOx
800037	2	DEMENNO-KERDOON DBA WORLD OIL RECYCLING	NOx
125579	1	DIRECTV	NOx
800189	1	DISNEYLAND RESORT	NOx
142536	2	DRS SENSORS & TARGETING SYSTEMS, INC	NOx
180908	1	ECO SERVICES OPERATIONS CORP.	NOx/SOx
800264	2	EDGINGTON OIL COMPANY	NOx/SOx
115663	1	EL SEGUNDO POWER, LLC	NOx
800372	2	EQUILON ENTER. LLC, SHELL OIL PROD. US	NOx/SOx
124838	1	EXIDE TECHNOLOGIES	NOx/SOx
95212	1	FABRICA	NOx
11716	1	FONTANA PAPER MILLS INC	NOx
184288	2	SENTINEL PEAK RESOURCES CALIFORNIA, LLC	NOx
346	1	FRITO-LAY, INC.	NOx
2418	2	FRUIT GROWERS SUPPLY CO	NOx
142267	2	FS PRECISION TECH LLC	NOx
176934	1	GI TC IMPERIAL HIGHWAY, LLC	NOx
124723	1	GREKA OIL & GAS	NOx
137471	2	GRIFOLS BIOLOGICALS INC	NOx
156741	2	HARBOR COGENERATION CO, LLC	NOx
157359	1	HENKEL ELECTRONIC MATERIALS, LLC	NOx
123774	1	HERAEUS PRECIOUS METALS NO. AMERICA, LLC	NOx
113160	2	HILTON COSTA MESA	NOx
800066	1	HITCO CARBON COMPOSITES INC	NOx
2912	2	HOLLIDAY ROCK CO INC	NOx
800003	2	HONEYWELL INTERNATIONAL INC	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
124808	2	INEOS POLYPROPYLENE LLC	NOx/SOx
129816	2	INLAND EMPIRE ENERGY CENTER, LLC	NOx
157363	2	INTERNATIONAL PAPER CO	NOx
16338	1	KAISER ALUMINUM FABRICATED PRODUCTS, LLC	NOx
21887	2	KIMBERLY-CLARK WORLDWIDE INC.-FULT. MILL	NOx/SOx
1744	2	KIRKHILL - TA COMPANY	NOx
800335	2	LA CITY, DEPT OF AIRPORTS	NOx
800170	1	LA CITY, DWP HARBOR GENERATING STATION	NOx
800074	1	LA CITY, DWP HAYNES GENERATING STATION	NOx
800075	1	LA CITY, DWP SCATTERGOOD GENERATING STN	NOx
800193	2	LA CITY, DWP VALLEY GENERATING STATION	NOx
61962	1	LA CITY, HARBOR DEPT	NOx
550	1	LA CO., INTERNAL SERVICE DEPT	NOx
173904	2	LAPEYRE INDUSTRIAL SANDS, INC	NOx
141295	2	LEKOS DYE AND FINISHING, INC	NOx
144455	2	LIFOAM INDUSTRIES, LLC	NOx
83102	2	LIGHT METALS INC	NOx
185601	2	BRIDGE ENERGY, LLC	NOx
185600	2	BRIDGE ENERGY, LLC	NOx
185801	1	BERRY PETROLEUM COMPANY, LLC	NOx
185574	1	BRIDGE ENERGY, LLC	NOx
185575	2	BRIDGE ENERGY, LLC	NOx
115314	2	LONG BEACH GENERATION, LLC	NOx
17623	2	LOS ANGELES ATHLETIC CLUB	NOx
58622	2	LOS ANGELES COLD STORAGE CO	NOx
800080	2	LUNDAY-THAGARD CO DBA WORLD OIL REFINING	NOx/SOx
38872	1	MARS PETCARE U.S., INC.	NOx
14049	2	MARUCHAN INC	NOx
3029	2	MATCHMASTER DYEING & FINISHING INC	NOx
182970	1	MATRIX OIL CORP	NOx
2825	1	MCP FOODS INC	NOx
173290	1	MEDICLEAN	NOx
176952	2	MERCEDES-BENZ WEST COAST CAMPUS	NOx
94872	2	METAL CONTAINER CORP	NOx
155877	1	MILLERCOORS USA LLC	NOx
12372	1	MISSION CLAY PRODUCTS	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
11887	2	NASA JET PROPULSION LAB	NOx
115563	1	NCI GROUP INC., DBA, METAL COATERS OF CA	NOx
172005	2	NEW- INDY ONTARIO, LLC	NOx
12428	2	NEW NGC, INC.	NOx
131732	2	NEWPORT FAB, LLC	NOx
18294	1	NORTHROP GRUMMAN SYSTEMS CORP	NOx
800408	1	NORTHROP GRUMMAN SYSTEMS	NOx
800409	2	NORTHROP GRUMMAN SYSTEMS CORPORATION	NOx
112853	2	NP COGEN INC	NOx
115315	1	NRG CALIFORNIA SOUTH LP, ETIWANDA GEN ST	NOx
89248	2	OLD COUNTRY MILLWORK INC	NOx
47781	1	OLS ENERGY-CHINO	NOx
183564	2	ONNI TIMES SQUARE LP	NOx
183415	2	ONTARIO INTERNATIONAL AIRPORT AUTHORITY	NOx
35302	2	OWENS CORNING ROOFING AND ASPHALT, LLC	NOx/SOx
7427	1	OWENS-BROCKWAY GLASS CONTAINER INC	NOx/SOx
45746	2	PABCO BLDG PRODUCTS LLC,PABCO PAPER, DBA	NOx/SOx
17953	1	PACIFIC CLAY PRODUCTS INC	NOx
59618	1	PACIFIC CONTINENTAL TEXTILES, INC.	NOx
2946	1	PACIFIC FORGE INC	NOx
130211	2	NOVIPAX, INC	NOx
187165	1	ALTAIR PARAMOUNT, LLC	NOx/SOx
800168	1	PASADENA CITY, DWP	NOx
171107	2	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	NOx/SOx
171109	1	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	NOx/SOx
137520	1	PLAINS WEST COAST TERMINALS LLC	NOx
800416	1	PLAINS WEST COAST TERMINALS LLC	NOx
800417	2	PLAINS WEST COAST TERMINALS LLC	NOx
800419	2	PLAINS WEST COAST TERMINALS LLC	NOx
800420	2	PLAINS WEST COAST TERMINALS LLC	NOx
168088	1	POLYNT COMPOSITES USA INC	NOx
11435	2	PQ CORPORATION	NOx/SOx
7416	1	PRAXAIR INC	NOx
42630	1	PRAXAIR INC	NOx
136	2	PRESS FORGE CO	NOx
105903	1	PRIME WHEEL	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
179137	1	QG PRINTING II LLC	NOx
8547	1	QUEMETCO INC	NOx/SOx
19167	2	R J. NOBLE COMPANY	NOx
185101	2	LSC COMMUNICATIONS, LA MFG DIV	NOx
20604	2	RALPHS GROCERY CO	NOx
114997	1	RAYTHEON COMPANY	NOx
115172	2	RAYTHEON COMPANY	NOx
800371	2	RAYTHEON SYSTEMS COMPANY - FULLERTON OPS	NOx
20203	2	RECONSERVE OF CALIFORNIA-LOS ANGELES INC	NOx
180410	2	REICHHOLD LLC 2	NOx
52517	1	REXAM BEVERAGE CAN COMPANY	NOx
800113	2	ROHR, INC.	NOx
4242	2	SAN DIEGO GAS & ELECTRIC	NOx
161300	2	SAPA EXTRUDER, INC	NOx
183108	2	URBAN COMMONS LLC EVOLUTION HOSPITALITY	NOx
15504	2	SCHLOSSER FORGE COMPANY	NOx
14926	1	SEMPRA ENERGY (THE GAS CO)	NOx
152707	1	SENTINEL ENERGY CENTER LLC	NOx
184301	1	SENTINEL PEAK RESOURCES CALIFORNIA, LLC	NOx
800129	1	SFPP, L.P.	NOx
37603	1	SGL TECHNIC INC, POLYCARBON DIVISION	NOx
131850	2	SHAW DIVERSIFIED SERVICES INC	NOx
117227	2	SHCI SM BCH HOTEL LLC, LOEWS SM BCH HOTE	NOx
16639	1	SHULTZ STEEL CO	NOx
54402	2	SIERRA ALUMINUM COMPANY	NOx
85943	2	SIERRA ALUMINUM COMPANY	NOx
101977	1	SIGNAL HILL PETROLEUM INC	NOx
119596	2	SNAK KING CORPORATION	NOx
185352	2	SNOW SUMMIT, LLC.	NOx
4477	1	SO CAL EDISON CO	NOx
5973	1	SO CAL GAS CO	NOx
800127	1	SO CAL GAS CO	NOx
800128	1	SO CAL GAS CO	NOx
8582	1	SO CAL GAS CO/PLAYA DEL REY STORAGE FAC	NOx
169754	1	SO CAL HOLDING, LLC	NOx
14871	2	SONOCO PRODUCTS CO	NOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
160437	1	SOUTHERN CALIFORNIA EDISON	NOx
800338	2	SPECIALTY PAPER MILLS INC	NOx
1634	2	STEELCASE INC, WESTERN DIV	NOx
126498	2	STEELSCAPE, INC	NOx
105277	2	SULLY MILLER CONTRACTING CO	NOx
19390	1	SULLY-MILLER CONTRACTING CO.	NOx
3968	1	TABC, INC	NOx
18931	2	TAMCO	NOx/SOx
174591	1	TESORO REF & MKTG CO LLC,CALCINER	NOx/SOx
174655	2	TESORO REFINING & MARKETING CO, LLC	NOx/SOx
151798	1	TESORO REFINING AND MARKETING CO, LLC	NOx/SOx
800436	1	TESORO REFINING AND MARKETING CO, LLC	NOx/SOx
96587	1	TEXOLLINI INC	NOx
16660	2	THE BOEING COMPANY	NOx
115241	1	THE BOEING COMPANY	NOx
800067	1	THE BOEING COMPANY	NOx
800038	2	THE BOEING COMPANY - C17 PROGRAM	NOx
148340	2	THE BOEING COMPANY-BUILDING 800 COMPLEX	NOx
14736	2	THE BOEING CO-SEAL BEACH COMPLEX	NOx
11119	1	THE GAS CO./ SEMPRA ENERGY	NOx
153199	1	THE KROGER CO/RALPHS GROCERY CO	NOx
97081	1	THE TERMO COMPANY	NOx
800330	1	THUMS LONG BEACH	NOx
129497	1	THUMS LONG BEACH CO	NOx
800325	2	TIDELANDS OIL PRODUCTION CO	NOx
68118	2	TIDELANDS OIL PRODUCTION COMPANY ETAL	NOx
171960	2	TIN, INC. DBA INTERNATIONAL PAPER	NOx
137508	2	TONOGA INC, TACONIC DBA	NOx
181667	1	TORRANCE REFINING COMPANY LLC	NOx/SOx
182049	2	TORRANCE VALLEY PIPELINE CO LLC	NOx
182050	1	TORRANCE VALLEY PIPELINE CO LLC	NOx
182051	1	TORRANCE VALLEY PIPELINE CO LLC	NOx
53729	1	TREND OFFSET PRINTING SERVICES, INC	NOx
165192	2	TRIUMPH AEROSTRUCTURES, LLC	NOx
43436	1	TST, INC.	NOx
800026	1	ULTRAMAR INC	NOx/SOx

ANNUAL RECLAIM AUDIT

Facility ID	Cycle	Facility Name	Program
9755	2	UNITED AIRLINES INC	NOx
800149	2	US BORAX INC	NOx
800150	1	US GOVT, AF DEPT, MARCH AIR RESERVE BASE	NOx
800393	1	VALERO WILMINGTON ASPHALT PLANT	NOx
9053	1	ENWAVE LOS ANGELES INC.	NOx
11034	2	ENWAVE LOS ANGELES INC.	NOx
14495	2	VISTA METALS CORPORATION	NOx
146536	1	WALNUT CREEK ENERGY, LLC	NOx/SOx
42775	1	WEST NEWPORT OIL CO	NOx/SOx
17956	1	WESTERN METAL DECORATING CO	NOx
51620	1	WHEELABRATOR NORWALK ENERGY CO INC	NOx
127299	2	WILDFLOWER ENERGY LP/INDIGO GEN., LLC	NOx

APPENDIX B

FACILITY INCLUSIONS

As discussed in Chapter 1, no facilities were added to the RECLAIM universe in Compliance Year 2017.

APPENDIX C

RECLAIM FACILITIES CEASING OPERATION OR EXCLUDED

SCAQMD staff is aware of the following RECLAIM facilities that permanently shut down all operations, inactivated all their RECLAIM permits, or were excluded from the RECLAIM universe during Compliance Year 2017. The reasons for shutdowns and exclusions cited below are based on the information provided by the facilities and other information available to SCAQMD staff.

Facility ID	61722
Facility Name	Ricoh Electronics, Inc.
City and County	Santa Ana, Orange County
SIC	2672
Pollutant(s)	NOx
1994 Allocation	14,443 lbs.
Reason for Shutdown	The facility stated that the reason for shutdown was consolidation with a plant located in Lawrenceville, Georgia. The facility was seeking to expand, and the plant in Georgia was closer to the majority of their customers who are on the east coast.

Facility ID	68042
Facility Name	Corona Energy Partners, Ltd
City and County	Corona, Riverside County
SIC	4923
Pollutant(s)	NOx
1994 Allocation	45,416 lbs.
Reason for Shutdown	The facility stated that their power purchase contract was not renewed. The facility was closed, decommissioned, dismantled, and the property sold. There is no longer an electrical generating station at the location.

Facility ID	109914
Facility Name	Thermal Remediation Solutions, LLC
City and County	Azusa, Los Angeles County
SIC	1794
Pollutant(s)	NOx
1994 Allocation	0 lbs.
Reason for Shutdown	The company stated the reason for shutdown was changing market conditions. The demand for contaminated soil treatment declined to the point where the facility could not stay in business.

ANNUAL RECLAIM AUDIT

Facility ID	40483
Facility Name	Nelco Prod. Inc
City and County	Fullerton, Orange County
SIC	3612
Pollutant(s)	NOx
1994 Allocation	8,201 lbs.
Reason for Shutdown	The facility claimed that they shut down due to RECLAIM. They cited, among other reasons, that its small size could not guarantee compliance with the recordkeeping, reporting, and audit requirements of the RECLAIM program, which they characterized as "extreme".

APPENDIX D

FACILITIES THAT EXCEEDED THEIR ANNUAL ALLOCATION FOR COMPLIANCE YEAR 2017

The following is a list of facilities that did not have enough RTCs to cover their NOx and/or SOx emissions in Compliance Year 2017 based on the results of audits conducted by SCAQMD staff.

Facility ID	Facility Name	Compliance Year	Emittent
136	Press Forge Co.	2017	NOx
11119	The Gas Co. / Sempra Energy	2017	NOx
18931	Tamco	2017	NOx/SOx
20203	Reconserve of California – Los Angeles Inc.	2017	NOx
50098	D & D Disposal Inc., West Coast Rendering Co.	2017	NOx
63180	Darling Ingredients Inc.	2017	NOx
124723	Greka Oil & Gas	2017	NOx
168088	Polynt Composites USA Inc.	2017	NOx
174591	Tesoro Ref & Mktg Co LLC, Calciner	2017	NOx/SOx
183832	AST Textile Group, Inc.	2017	NOx
184958	Broncs Inc. DBA West Coast Textiles	2017	NOx
185145	9W Halo Western OPCP LP DBA Angelica	2017	NOx
800016	Baker Commodities Inc.	2017	NOx
800181	California Portland Cement Co.	2017	NOx/SOx
800196	American Airlines, Inc.	2017	NOx

APPENDIX E

REPORTED JOB IMPACTS ATTRIBUTED TO RECLAIM

Each year, RECLAIM facility operators are asked to provide employment data in their APEP reports. The report asks company representatives to quantify job increases and/or decreases, and to report the positive and/or negative impacts of the RECLAIM program on employment at their facilities. This appendix is included in each Annual RECLAIM Audit Report to provide detailed information for facilities reporting that RECLAIM contributed to job gains or losses.

Facilities with reported job gains or losses attributed to RECLAIM:

Facility ID:	40483
Facility Name:	Nelco Prod. Inc
City and County:	Fullerton, Orange County
SIC:	3612
Pollutant(s):	NOx
Cycle:	2
Job Gain:	0
Job Loss:	52
Comments:	The facility claimed that it shut down and lost up to 52 jobs due to RECLAIM. The facility cited, among other reasons, that its small size could not guarantee compliance with the recordkeeping, reporting, and audit requirements of the RECLAIM program, which they characterized as "extreme".



Annual RECLAIM Audit Report for 2017 Compliance Year

South Coast Air Quality Management District
Governing Board Meeting
March 1, 2019



RECLAIM

REgional Clean Air Incentives Market (RECLAIM) program:

- A cap and trade program adopted in October 1993
- Objective is to meet emission reduction requirements and enhance emission monitoring while providing additional flexibility to lower compliance costs
- Includes largest NO_x and SO_x sources
- Specifies facility declining annual emissions caps
- Allows options to reduce emissions or buy RECLAIM Trading Credits (RTCs)

Compliance Year (CompYr) 2017 is the 24th year of the program (started in 1994)



RECLAIM Annual Audit

- RECLAIM (Rule 2015) requires an annual audit of the program
- Annual RECLAIM Audit Report for Compliance Year 2017
 - Cycle 1: Jan 1, 2017 – Dec 31, 2017
 - Cycle 2: Jul 1, 2017 – Jun 30, 2018
- RECLAIM had 258 facilities at the end of CompYr 2017 (262 at end of CompYr 2016)

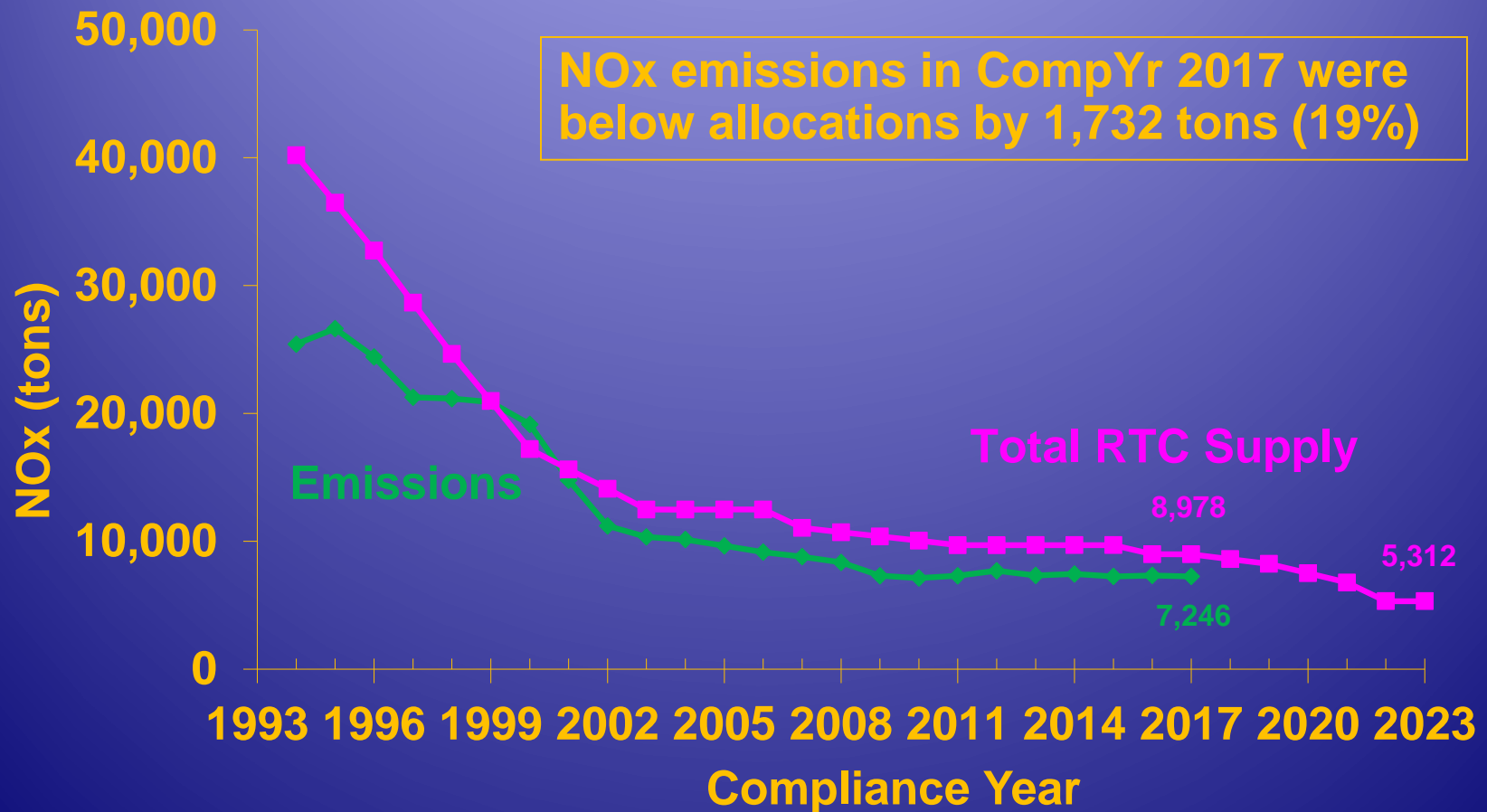


2017 Annual RECLAIM Audit Findings Compliance

- RECLAIM met overall NOx and SOx emissions goals:
 - NOx emissions **19%** below allocations
 - SOx emissions **17%** below allocations
- Allocation Shave
 - NOx Shave of 22.5% adopted January 2005 and implemented in 2007 - 2011
 - SOx Shave of 48.4% adopted November 2010 and implemented in 2013 – 2019
 - Additional NOx Shave of 45.2% adopted in December 2015 and implemented in 2016 – 2022
 - Reduction of 2 tons/day (7.4%) NOx and 5 tons /day (43%) SOx allocations in Compliance Year 2017

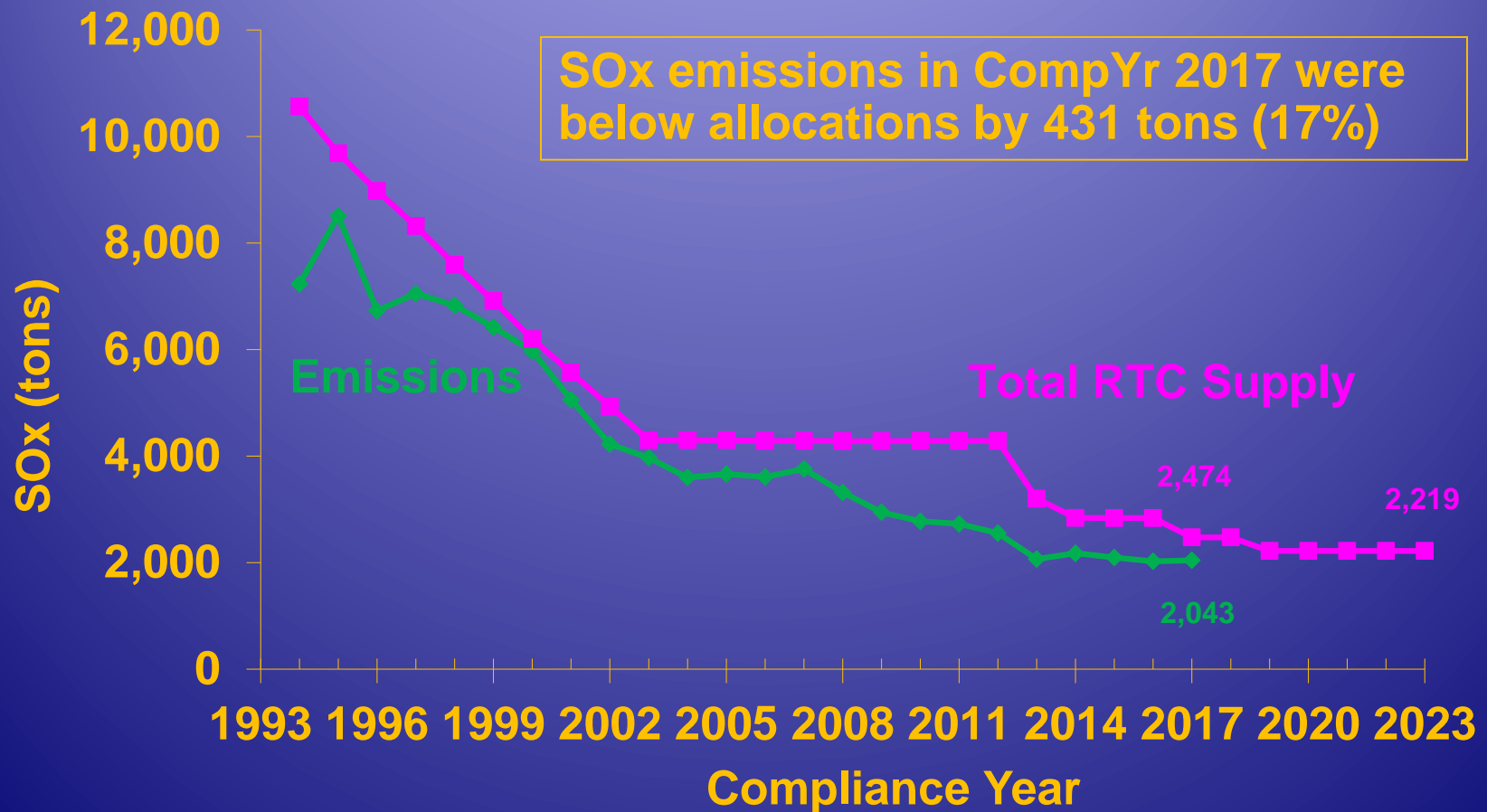
RECLAIM

NOx Emissions vs. Allocations Trends



RECLAIM

SOx Emissions vs. Allocations Trends



2017 Annual RECLAIM Audit Findings Compliance

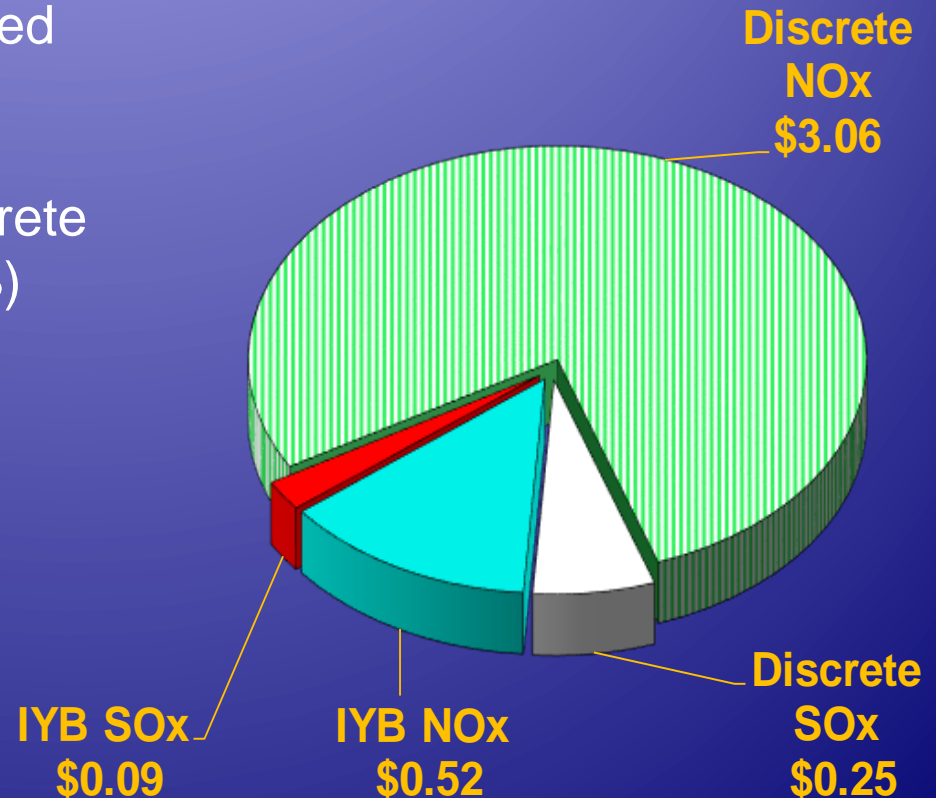
- RECLAIM had a high rate of facility compliance:
 - NOx Facilities – **95%**
 - SOx Facilities – **90%**
- Facilities exceeding their allocations
 - NOx – 15 facilities exceeded by 164.0 tons (1.83% of total allocations)
 - SOx – three facility exceeded by 133.5 tons (5.40% of total allocations)

2017 Annual RECLAIM Audit Findings

Credit Trading and Prices

- Over \$1.48 billion of RTCs traded since program inception
- RTCs are traded as either Discrete Year or Infinite-Year Block (IYB)
- \$3.94 million of RTCs traded in Calendar Year (CalYr) 2018 (\$ 6.86 million in CalYr 2017)

**Value Traded in CalYr 2018
(Million \$)**



2017 Annual RECLAIM Audit Findings

Average Discrete Year NOx RTC Prices



- Average prices in CalYr 2018 below program review thresholds:

- \$15,000/ton [Rule 2015]
- \$45,734/ton* [Health and Safety Code]

2017 Annual RECLAIM Audit Findings

Average Discrete Year SOx RTC Prices

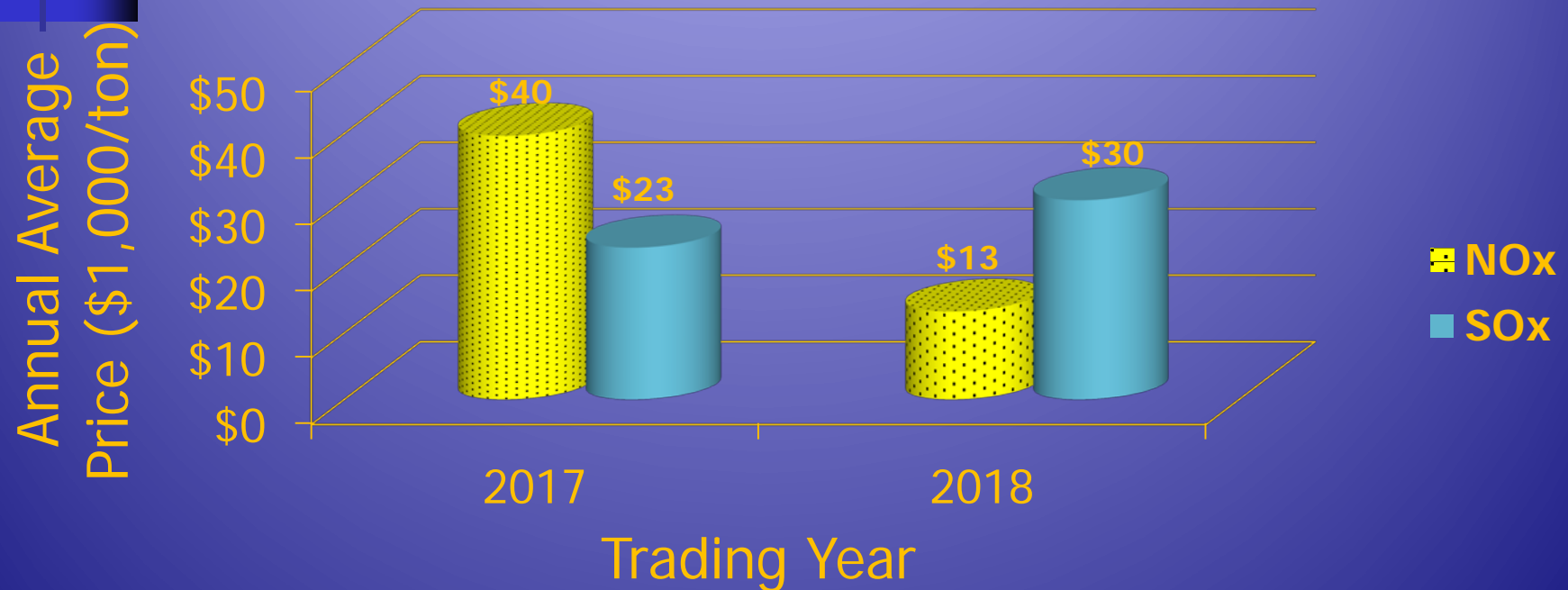


- Average prices in CalYr 2018 below program review thresholds:

- \$15,000/ton [Rule 2015]
- \$32,929*/ton [Health and Safety Code]

2017 Annual RECLAIM Audit Findings

Average IYB RTC Prices



- 2018 IYB RTC average prices remain below program review thresholds [Health and Safety Code]

■ NOx = \$686,014/ton*

■ SOx = \$493,930/ton*

2017 Annual RECLAIM Audit Findings

Investor Participation during CalYr 2018

- Investors are RTC holders who are not RECLAIM facility operators
- Investor participation remains active in CalYr 2018 trades.

RTC Type	Value		Volume	
	NOx	SOx	NOx	SOx
Discrete	64%	61%	55%	61%
IYB	64%	45%	51%	45%

- Investors' holdings at the end of CalYr 2018
 - 3.8% of IYB NOx RTCs (up from 3.3 % in CalYr 2017)
 - 4.7% of IYB SOx RTCs (down from 6.0 % in CalYr 2017)

2017 Annual RECLAIM Audit Findings

RECLAIM Transition

- On January 5, 2018, the Board directed staff to initiate the transition of the RECLAIM program to a command-and-control regulatory structure:
 - Monthly working group meetings
 - Rule-specific working groups
 - Identified 21 “Landing Rules” to implement BARCT
 - Completed amendments of two rules as of June 30, 2018 and eight rules as of January 4, 2019.



2017 Annual RECLAIM Audit Findings

- RECLAIM facilities overall employment loss of 0.26% (net loss of 276 jobs)
- Met federal NSR offset ratios
- No significant shift in seasonal emissions
- No evidence of increased health risk due to RECLAIM

2017 Annual RECLAIM Audit Findings Summary/Recommendations

Summary:

- Programmatic compliance achieved (NO_x and SO_x emissions were 19% and 17% below allocations, respectively)
- Individual facility compliance rate remained high (95% & 90% for NO_x and SO_x, respectively)
- RTC prices stayed far below program review thresholds
- RECLAIM met all other requirements

Recommendation:

- Approve the Annual RECLAIM Audit Report for 2017 Compliance Year