



South Coast Air Quality Management District



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

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP MEETING

Advisory Group Members

Mayor Ben Benoit, Chair

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

Janice Rutherford, Supervisor, Second District

Felipe Aguirre

Rachelle Arizmendi

Paul Avila

Geoffrey Blake

Todd Campbell

LaVaughn Daniel

John DeWitt

Bill LaMarr

Rita Loof

Eddie Marquez

Cynthia Moran

David Rothbart

**Friday, September 14, 2018 ♦ 11:30 a.m. ♦ Conference Room GB
21865 Copley Drive, Diamond Bar, CA 91765**

Call-in for listening purposes only is available by dialing:

Toll Free: 888-850-4523

Listen Only Passcode: 2626876

In addition, a webcast is available for viewing and listening at:

<http://www.aqmd.gov/home/library/webcasts>

AGENDA

Members of the public may address this body concerning any agenda item before or during consideration of that item (Gov't. Code Section 54854.3(a)). Please provide a Request to Address the Committee card to the Committee Secretary if you wish to address the Committee on an agenda item. If no cards are available, please notify SCAQMD staff or a Board Member of your desire to speak. All agendas for regular meetings are posted at District Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of the regular meeting. Speakers may be limited to three (3) minutes each.

CALL TO ORDER

ACTION ITEMS (Items 1 through 3):

1. Call to Order/Opening Remarks
(*No Motion Required*)
*Mayor Ben Benoit
Committee Chair*
2. Approval of July 13, 2018 Meeting Minutes
(*Motion Required*)
[Attachment 1]
*Derrick J. Alatorre,
Deputy Executive Officer
Legislative, Public Affairs &
Media*
3. Review of Follow-Up/Action Items
Derrick J. Alatorre

DISCUSSION ITEMS (Items 4 and 5):

4. Renewable Fuels
(*No Motion Required*)
Staff will provide the status of renewable natural gas and renewable diesel production and use.
*Philip Barroca
Program Supervisor,
Science & Technology
Advancement*
5. Update on SCAQMD's Incentive Programs
(*No Motion Required*)
Staff will present on the different incentive programs offered and the current levels of usage within the South Coast basin.
*Vicki White.
Technology Implementation
Manager,
Science & Technology
Advancement*

WRITTEN REPORT:

6. **Monthly Report on Small Business Assistance Activities**
(*No Motion Required*)
Summary of assistance and outreach activities conducted by SCAQMD's Small Business Assistance Office for July & August 2018.
[Attachment 2 - Written Report]
All

OTHER MATTERS:

7. Other Business
Any member of this body, or its staff, on his or her own initiative or in response to questions posed by the public, may ask a question for clarification, may make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter, or may take action to direct staff to place a matter of business on a future agenda. (Govt. Code Section 54954.2)

8. **Public Comment Period**

At the end of the regular meeting agenda, an opportunity is provided for the public to speak on any subject within the Local Government and Small Business Assistance Committee's authority that is not on the agenda. Speakers may be limited to three (3) minutes each.

9. **Next Meeting Date** - Friday, October 12, 2018 at 11:30 a.m.

ADJOURNMENT

Document Availability

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

Americans with Disabilities Act

The agenda and documents in the agenda packet will be made available, upon request, in appropriate alternative formats to assist persons with a disability (Gov't Code Section 54954.2(a)). Disability-related accommodations will also be made available to allow participation in the Legislative Committee meeting. Any accommodations must be requested as soon as practicable. Requests will be accommodated to the extent feasible. Please contact Stacy Garcia at (909) 396-2495 from 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to sgarcia@aqmd.gov.

DRAFT

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP FRIDAY, JULY 13, 2018 MEETING MINUTES

MEMBERS PRESENT:

Ben Benoit, Mayor Pro Tem, City of Wildomar and LGSBA Chairman
Felipe Aguirre
Paul Avila, P.B.A. & Associates
Geoffrey Blake, Metal Finishers of Southern California
LaVaughn Daniel, DancoEN
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Paramount Petroleum
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:

Dr. Clark E. Parker, Sr., Senate Rules Committee Appointee
Janice Rutherford, Supervisor, Second District, San Bernardino County
Rachelle Arizmendi, Mayor Pro Tempore, City of Sierra Madre
Todd Campbell, Clean Energy
John DeWitt, JE DeWitt, Inc.
Cynthia Moran, Council Member, City of Chino Hills

OTHERS PRESENT:

Andrew Silva, San Bernardino County Administrative Office

SCAQMD STAFF:

Jill Whynot, Chief Operating Officer
Derrick Alatorre, Deputy Executive Officer
Jason Low, Ph.D., Assistant Deputy Executive Officer
Sujata Jain, Assistant Deputy Executive Officer
Nancy Feldman, Principal Deputy District Counsel
Naveen Berry, Planning & Rules Manager
Philip Crabbe, III, Community Relations Manager
Jo Kay Ghosh, Ph.D., Health Effects Officer
Payam Pakbin, Ph.D., Program Supervisor
Lisa Mirisola, Program Supervisor
De Groeneveld, Sr. Information Technology Specialist
Elaine-Joy Hills, AQ Inspector II
Stacy Garcia, Secretary
Andre Yeung, Student Intern

Agenda Item #1 - Call to Order/Opening Remarks

Chair Ben Benoit called the meeting to order at 11:32 a.m.

Agenda Item #2 – Approval of June 8, 2018 Meeting Minutes/Review of Follow-Up/Action Items

Chair Benoit called for approval of the June 8, 2018 meeting minutes. The minutes were approved unanimously.

Agenda Item #3 - Follow Up/Action Items

Mr. Derrick Alatorre indicated that one action item arose out of the June 8, 2018 meeting, which was Mr. David Rothbart's question about the remaining Emission Reduction Credits (ERCs) at closed facilities. SCAQMD's Engineering & Permitting will provide a presentation in the future to address Mr. Rothbart's question.

Agenda Item #4 - Update on Multiple Air Toxics Exposure Study (MATES V)

Dr. Payam Pakbin presented an update on MATES V.

Ms. Rita Loof asked if the decline in diesel emissions reflects the new guidelines. Dr. Pakbin responded that the MATES III study was reviewed and the new guidelines were used to recalculate the risk estimates.

Mr. Bill LaMarr requested clarification of the benefits gained and calculations. Dr. Jo Kay Ghosh said that it would not matter if the new or old method was used for calculations, the emissions and risks would still decrease. The biggest difference in the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines was changing the way the calculations were done by taking into account that children are more sensitive than adults. The change resulted in an increase in risks associated with a certain level of diesel emissions and other air toxics emissions. Mr. LaMarr further inquired if the increase in chromium 6 emissions in the previous MATES study was reversed. Dr. Ghosh stated that the 50% decrease in MATES IV was diesel reductions.

Mr. Paul Avila asked if black carbon is factored into the equation after it is burned. Dr. Pakbin responded that black carbon measurements are used to estimate total diesel particulate matter (PM). Diesel PM cannot be measured directly as it is a combination of pollutants.

Mr. Rothbart asked if carcinogens are periodically broken down to see what they are. Dr. Pakbin stated that they look at the PM composition, how it changes, and how the changes affect cancer risk. This PM data is contained in the MATES report.

Ms. Loof asked if the risk reduction would be greater using the old guidelines instead of the new guidelines, to which Dr. Pakbin said that the same methodology is used.

Mr. Avila inquired if black carbon will diminish in the future since technology is improving. Dr. Pakbin responded that reductions in black carbon measurements have been observed. Another source that can cause spikes in black carbon are wildfires. There is also a downward trend of black carbon, and based on the Air Quality Management Plan (AQMP), most of the black carbon come from diesel trucks that are not registered in California and out of SCAQMD jurisdiction. Mr. Avila further inquired if wildfires and dust storms impact the results of the study. Dr. Pakbin said that wildfires will both impact PM_{2.5} and criteria pollutants. When estimating diesel PM, carbon needs to be separated from fires. Mr. Avila

asked if the optical tent system would be able to understand data as far as disseminating if there are actual leaks. Dr. Pakbin said that as an area source, the technology is useful to assess the emissions.

Mr. LaMarr asked if there is a schedule for the mobile laboratory. Dr. Pakbin responded that they try to get data at different times of day, but that it has to be done during the daytime.

Ms. LaVaughn Daniel asked what technology can identify contaminants. Dr. Pakbin indicated that the optical tent is measuring benzene, toluene, ethylbenzene, and xylenes (B-TEX). Ms. Daniel asked if the mobile laboratory analyzes samples. Dr. Pakbin replied that they continuously measure pollutants, but require analysis and interpretation. Ms. Daniel then asked about the time and size of an area and how the data gets analyzed. Dr. Pakbin stated that the mobile laboratory will target an area or a specific facility to take several samples.

Ms. Loof inquired about the process to develop guidelines, which sensor technology would be used, and if public comment would be allowed. Dr. Pakbin responded that the first sensor deployment utilizes purple air and black carbon are commercially available; however, VOC sensors are newer technology and not commercially available. Dr. Jason Low indicated we have the AQ-SPEC program, which performs evaluations for all types of low cost sensors to provide to the public. Through the U.S. EPA Star Grant, staff is working with communities and will provide an educational toolbox that will be on our website. Ms. Loof asked, in regards to sensors, if there will be an internal staff process, engaging of the Governing Board, or if a report will be presented to the Board regarding endorsements of the sensors. Dr. Low replied that staff is working with the State to get guidelines on sensors as part of the AB 617 process.

Mr. LaMarr asked if low cost sensors are more accurate at reading PM than VOCs. Dr. Low stated that PM sensors are more corresponding to reference methods. The VOC portion is challenging because there are different gasses that respond to measurement techniques. Mr. LaMarr asked if there will be established protocol and guidelines for people using portable sensors, and if they are just being used for detection purposes. Dr. Low said that they are just being used for detection and if more monitoring is needed, they will do so.

Ms. Daniel asked if the data will be available to public. Dr. Low responded that the plan is to make the data available to the public.

Ms. Loof asked if we are looking for volunteers for community partnerships and if we envision any other rules for non-refinery sources. Dr. Pakbin indicated that the SCAQMD will reach out to community members and the public for volunteers to install sensors in their homes. The SCAQMD is also seeking partnerships with schools that would be interested in installing sensors. As to new rules, Dr. Ghosh referred to the SCAQMD's rule calendar.

Mr. Rothbart suggested more education for the public regarding health risks and what influences those risks, and things people can and cannot control.

Mr. LaMarr asked how staff plans on conducting a needs assessment. Dr. Ghosh responded that it will be community perspective and what is raised as concerns. Mr. LaMarr suggested working with the medical community. Dr. Ghosh stated that we are already working with the medical community, one is the Long Beach Alliance for Children with Asthma, which is part of a hospital. The SCAQMD has been reaching out to public health agencies and cancer registry agencies for collaboration.

Agenda Item #5 - FY 2018-19 General Fund Budget and Fee Adjustment

Ms. Sujata Jain presented an overview of the General Fund Budget and Fee Adjustment detailing staffing levels, expenditures, and revenues required to maintain current program commitments.

Mr. Avila inquired about the grant scenario for both Federal and State. Ms. Jain indicated that the main State grants are from AB 617, and the SCAQMD generally gets \$7,000,000 from Federal grants. Mr. LaMarr asked if permit costs would eventually go down because more can be done online. Ms. Jain responded that, similar to implementing the online payments, we need to invest money first.

Agenda Item #6 - Commercial Fuel Cell and Electric Battery Vehicles

Ms. Lisa Mirisola presented an overview of currently available and anticipated fuel cell and battery electric vehicles and incentives.

Mr. Avila asked if the fuel cell battery industry will make the traditional battery industry more efficient because of competition. Ms. Mirisola responded that competition does drive further innovation and that the price of lithium batteries is dropping.

Ms. Loof requested elaboration on the stationary source fee. Ms. Mirisola indicated the fees are used to support stationary fuel projects. Mr. Naveen Berry said some funds are used for distributor generation, powering, and energy efficiency projects for stationary sources. Ms. Loof asked who is paying the fee. Mr. Berry responded that it comes from the annual emissions reporting fee.

Mr. Avila asked what percentage would be extracted from the cost of battery. Mr. Berry said that \$1.00 comes from the registration fee by each car owner which comes from the annual emissions reporting fee.

Mr. Blake asked if there is a possibility of a shortage of battery building materials. Ms. Mirisola said it is something to keep an eye on, but that there are two sources of lithium.

Agenda Item #7 - Monthly Report on Small Business Assistance Activities

No comments.

Agenda Item #8 - Other Business

No other business.

Agenda Item #9 - Public Comment

No comments.

Agenda Item #10 - Next Meeting Date

The next regular Local Government & Small Business Assistance Advisory Group meeting is scheduled for Friday, September 14, 2018 at 11:30 a.m.

Adjournment

The meeting adjourned at 1:08 p.m.

Renewable Transportation Fuels

Local Government and Small Business Assistance

South Coast Air Quality Management District
September 14, 2018

Phil Barroca
Program Supervisor, Technology Demonstration
Technology Advancement Office

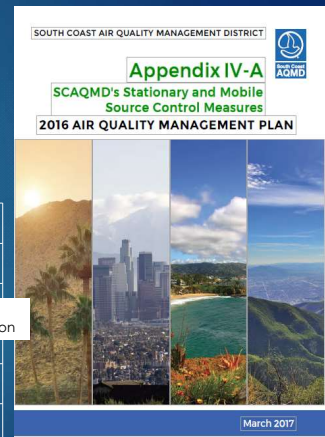
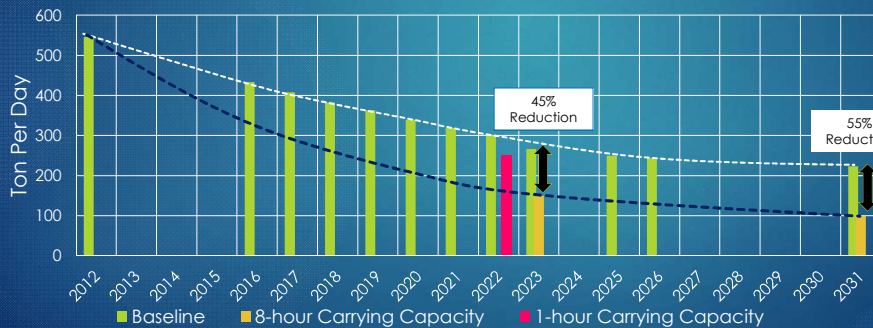


South Coast Plans & Policies

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- ▶ 2016 AQMP – NAAQS
- ▶ 2008 8-hr Ozone – 75 ppb

South Coast Air Basin Total NOx Emissions



NG Engines Certified to CARB's Optional Low NOx Emission Standards

3

0.05g-NOx/bhp-hr

**B6.7N**

6.7L inline 6
240 HP/560 Lbs. Ft

School Buses
Shuttle Vans
Class 6 Vehicles

0.02g-NOx/bhp-hr

**L9N**

8.9L inline 6
320 HP/1000 Lbs. Ft

School Buses Class D
Refuse Trucks
Concrete Mixers
Street Sweepers
Class 7/8 Trucks

0.02g-NOx/bhp-hr

**ISX12N**

11.9L inline 6
400 HP/1450 Lbs. Ft

Refuse Trucks
Concrete Mixers
Class 8 Trucks

Overview

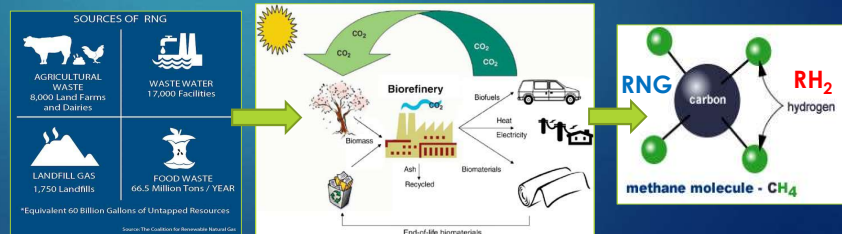
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- ▶ What is a Renewable Fuel?
- ▶ Renewable Fuels used in Transportation
- ▶ Roles of Renewable Fuels
- ▶ Drivers for Renewable Fuels production and use
- ▶ What is Renewable Natural Gas ?
- ▶ What is Renewable Diesel and BioDiesel?
- ▶ SCAQMD Co-Sponsored Renewable Fuels related projects
 - ▶ CR&R
 - ▶ Kore
 - ▶ Ontario CNG
 - ▶ UCR
 - ▶ White Papers – RNG and NZE HDVs, RD

Renewable Fuels in Transportation

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- ▶ Electricity
 - ▶ Hydro
 - ▶ Solar
 - ▶ Wind
 - ▶ Geothermal
 - ▶ Biomass
- ▶ Hydrocarbon and Hydrogen Fuels from biomass
 - ▶ Agricultural/Trees
 - ▶ Food and Green Waste
 - ▶ Dairy and Farm
 - ▶ Biosolids/Wastewater



Roles of Renewable Fuels

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- ▶ Reduce dependency on petroleum based fuels
- ▶ Increase energy security from domestically produced fuels
- ▶ Potential to reduce criteria pollutants - NO_x and PM emissions
- ▶ Reduce Greenhouse Gas (GHG) emissions
- ▶ Reduce Short Lived Climate Pollutants



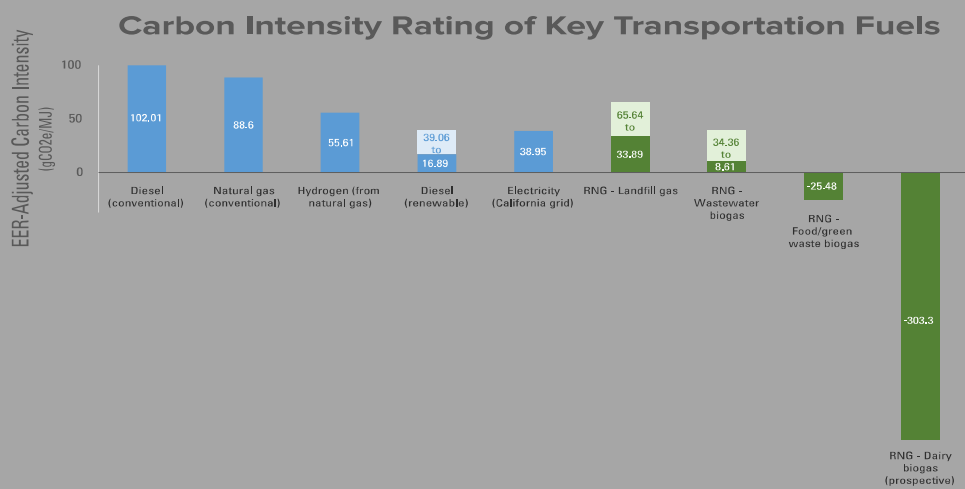
Drivers for Transportation RFuels

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- ▶ Federal Renewable Fuel Standard (RFS) and Energy Independence and Security Act of 2007
 - ▶ 36 billion gallons of renewable fuel by 2022
 - ▶ Credit program (RIN) incentivizes production and use
- ▶ CA AB32 and Low Carbon Fuel Standard (LCFS)
 - ▶ Reduce the carbon intensity of transportation fuels used in CA by at least 10% by 2020
 - ▶ Credit program (LCFS) incentivizes production and use
- ▶ CA Short Lived Climate Pollutants (SLCP)
 - ▶ Methane from Dairy, Livestock and Landfills
 - ▶ 50% reduction by 2030 (2013 baseline)
- ▶ Waste diversion and recycling initiatives
 - ▶ AB 341 (Chesbro) requires 75% commercial organic waste diversion by 2020

Carbon Intensity of Key Transportation Fuels

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Renewable Natural Gas (Biomethane)

9

- ▶ **Renewable Natural Gas (RNG)**, or biomethane, is a pipeline-quality gas that is fully interchangeable with conventional natural gas and thus can be used in natural gas vehicles.
- ▶ Feedstocks: essentially any organic matter, e.g. food, green waste, manure
- ▶ Production Methods: biochemical process, such as [anaerobic digestion](#), or [thermochemical](#) processes, such as gasification.
- ▶ RNG as a transportation fuel must be processed to a higher purity standard than raw biogas. This process is called conditioning or upgrading, and involves the removal of water, carbon dioxide, hydrogen sulfide, and other trace elements. The resulting RNG, or biomethane, has a higher content of methane than raw biogas, which makes it comparable to conventional natural gas and thus a suitable energy source in applications that require pipeline-quality gas



Renewable Diesel and Biodiesel

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- ▶ **Renewable Diesel (RD)** is also known as Hydrotreated Vegetable Oil (HVO) or second-generation biofuel.
- ▶ Feedstocks: biomass waste and residues, often the same feedstocks as biodiesel.
- ▶ Production Methods: hydrotreating, thermal conversion, or biomass-to-liquid. Impurities are removed from the raw materials during processing and hydrotreated at a high temperature.
- ▶ Identical chemical composition and fully interchangeable with fossil diesel fuel and has demonstrated a 3-18% NOx reduction as vehicle fuel (CARB)
- ▶ **Biodiesel (B)** is also known as Fatty Acid Methyl Ester (FAME).
- ▶ Feedstocks: vegetable oils or fats, such as soybean oil, algae and chicken fat, as well as waste vegetable oil (WVO).
- ▶ Production Method: transesterification (use of methanol) to purify the materials into biodiesel. The fuel contains oxygen, which leads to it having different lubrication performance properties than renewable diesel and petrodiesel.
- ▶ OEMs require Biodiesel be blended up to 20% (B20) with conventional diesel. Biodiesel at certain blend levels increases NOx emissions in diesel exhaust (CARB).
- ▶ NOx reduction potential for biodiesel is less than for RD



SCAQMD Co-sponsored projects

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- ▶ **Renewable Natural Gas – Production and Demonstration**
 - ▶ CR&R – AD (High Solids Food and Tard Waste); Perris, CA
 - ▶ Co-Sponsors: CR&R, CEC, CalRecycle
 - ▶ KORE Infrastructure – Pyrolysis (Biosolids, other low moisture carbon materials)
 - ▶ Co-Sponsors: Kore, SoCalGas
- ▶ **Renewable Natural Gas – Retail**
 - ▶ OntarioCNG – CNG Station Expansion and RNG fueling
 - ▶ Co-Sponsors: OntarioCNG
- ▶ **Renewable Natural Gas and Renewable Diesel - Research**
 - ▶ UCR – CE-CERT - RNG Research Center and Viability of RNG in California
 - ▶ Co-Sponsors: UCR, SoCalGas, U.S. DOT
 - ▶ GNA – White Papers - RNG and RD
 - ▶ Co-Sponsors: RNG - SoCalGas, PG&E, Agility, AGA, Clean Energy, CNGVP; RD - BAAQMD



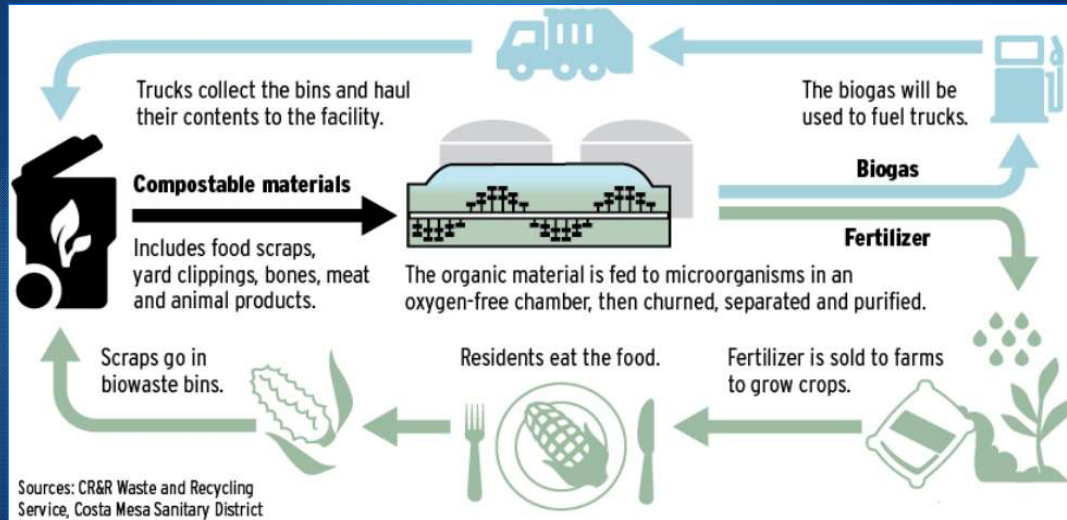
CR&R – RNG production

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CR&R – Zero Waste Cycle

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CR&R – Anaerobic Digestion of High Solids Food and Yard Waste

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- ▶ Four Phase Project – Per Phase specs
 - ▶ process 80,000 Tons/Year food and green waste
 - ▶ produce 890,000 DGE/Year of RNG
 - ▶ fuel 75 refuse vehicles daily with low CI RNG
- ▶ Phase 1 Completed in 2016
- ▶ Phase 2 Completed in 2018
- ▶ Pipeline interconnect completed in 2018
- ▶ CR&R to have 100% CNG powered fleet by 2020
- ▶ CI: $-22.93 \text{ gCO}_2\text{e/MJ}$ (estimate based on similar HSAD process in CA)



KORE Infrastructure - Demonstration

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Methane Cleanup

KORE Project – Pyrolysis Technology

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- ▶ Technology Demonstration Project with SoCalGas
- ▶ Demonstrate and troubleshoot full scale pyrolysis system
- ▶ Demonstrate various carbonaceous feedstocks
- ▶ Test, analyze and quantify syngas products from each feedstock



OntarioCNG - Retail

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OntarioCNG – Multi-Fuel Station

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- ▶ Conventional Retail Fuel Station featuring: RNG, Renewable H₂ produced on-site (electrolysis), Renewable Diesel, Electric Charging, E85
- ▶ OntarioCNG project included:
 - ▶ securing RNG contract for 1,000,000 DGE/year
 - ▶ Credit valuation
 - ▶ RNG CI: -254.94g CO₂e/MJ ; Diesel CI: 96.91g CO₂e/MJ
 - ▶ Annual GHG reduction estimate: 57,000 MT/yr
 - ▶ Average LCFS Credit value 2018: \$144.46/MT
 - ▶ Credit value/DGE for RNG ~ \$8.00/DGE
 - ▶ Current Retail price at OntarioCNG: \$2.15/GGE



UC Riverside – Research & Demonstration

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- ▶ Established new Renewable Natural Gas Research Center dedicated to the development of technologies that will enable RNG production in substantial quantities in California and elsewhere.
- ▶ Research into RNG production potential via thermochemical processes and the quantities and potential of typical feedstocks
- ▶ Perform techno-economic evaluation of high viability projects
- ▶ Develop design basis for demonstration scale production
- ▶ Set-up a testbed to demonstrate RNG production technologies in pre-commercial scale via Thermochemical and Power to Gas methods.



UC Riverside – Preliminary Info

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- ▶ Most Biomass in CA used in electricity generation (does not qualify for LCFS)
- ▶ Biomass to RNG is a significant opportunity for very low carbon fuel
- ▶ Excess renewable electricity (Solar, Wind) offers a Power to Gas opportunity to produce hydrogen or methane at very low cost.
 - ▶ Projected unused renewable electricity: 12,000 GWh (2030) ~ 243 MM kg H₂
 - ▶ Projected H₂ demand for FCEV is 70 MM kg/yr (2030 – 250,000 vehicles)
- ▶ Thermochemical RNG production offers greater feedstock diversity and higher carbon conversion efficiencies



White Papers - Research

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- ▶ Game Changer - Next Generation Heavy-Duty Natural Gas Engines Fueled by Renewable Natural Gas www.ngvgamechanger.com
 - ▶ Ultra low NOx natural gas fueled engines have 90% less emissions than current standards and lower NOx than stationary electric power plants and can fuel with ultra low Carbon Intensity RNG at competitive pricing with LCFS and RIN credits.
 - ▶ The near-term cost/benefit of incentivizing ultra low NOx HDVs is the best of all options to reduce criteria and GHG emissions
- ▶ Renewable Diesel as a Major Transportation Fuel in California: Opportunities, Benefits & Challenges www.gladstein.org
 - ▶ A viable fuel for existing HDVs without exhaust treatment systems, e.g. pre 2010 compliant on-road and off-road HDVs
 - ▶ Drop-in fuel, cleaner than conventional diesel, competitive cost with LCFS and RIN credits
 - ▶ In combination with a CARB certified near zero emission (NZE) engine could achieve some parity with existing NZE CNG engines using RNG

Thank You and



Think Renew

SCAQMD's Incentive Programs Update



Vicki White
Technology Implementation Manager
Technology Advancement Office

Main Incentive Programs

Carl Moyer Program

- Trucks
- Transit buses
- Refuse trucks
- Public agency/utility vehicles
- Emergency vehicles
- Construction/Ag
- Marine Vessels
- Shore Power
- Locomotives
- Cargo Handling

1998 – Present
\$467 Million
6,708 vehicles

Prop 1B

- Trucks
- Shore Power
- Locomotives
- Cargo Handling
- TRUs

2009 - Present
\$485 Million
>7,300 vehicles

EFMP – Replace Your Ride

- Light-Duty Vehicles
- Alternative Mobility Options (transit passes, Uber, Lyft)
- Electric vehicle chargers

2015 - Present
\$24 Million
3,100 vehicles

Lower Emission School Bus Program

- School buses
- Infrastructure
- CNG tank replacements

2001 - Present
\$280 Million
5,000 vehicles

New Funding in FY 2017/18

Program Title	Description	Funding Amount
AB 134 – Community Air Protection	Funds early action mobile source projects in disadvantaged and low-income communities	\$107.5 million
CEC Grant for Near Zero Emission, Natural Gas Drayage Trucks	Accelerate deployment of near zero emission, natural gas trucks that service the Ports	\$8 million (+ \$6 million in cost share funds from SCAQMD, POLB and POLA)
Enhanced Fleet Modernization Program (Replace Your Ride)	CARB granted additional funding for EFMP to continue vouchers for low and moderate income motorists for cleaner vehicles	\$16.4 million
Voluntary NOx Remediation Measure Funding	Funds mobile source projects that will reduce NOx emissions to mitigate the NOx emissions increase from biodiesel use in CA	~\$2.67 million

New Funding in FY 2017/18

Program Title	Description	Funding Amount
EPA Targeted Air Shed Program Grant – Lawn and Garden Equipment	Funds zero emission, electric lawn and garden equipment for commercial use in environmental justice areas	~\$2.47 million
EPA Diesel Emission Reduction Act (DERA)	Funds to replace older diesel trucks with new optional low NOx, natural gas trucks	\$1.6 million
Lower Emission School Bus Program	Fund the replacement of older, high-polluting school buses with near-zero emission school buses	~\$35.6 million total (incl. \$32.5 million from SCAQMD and \$3.1 million from EPA)
Funding Agricultural Replacement Measures for Emissions Reductions (FARMER)	Fund the replacement of agricultural equipment using the Carl Moyer Program Guidelines	~\$1.88 million
Total New Funding:		\$182.1 million

Community Air Protection Program (AB 134)

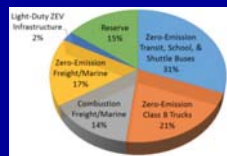
- Signed by Governor in September 2017
- \$250M from GGRF for Carl Moyer and Prop 1B type projects:
 - \$107.5M SCAQMD
 - \$80M SJVAPCD
 - \$50M BAAQMD
 - \$12.5M Others
- At least 80% of projects must be implemented in disadvantaged and low-income communities

AB 134 Update

- In November 2017, SCAQMD approved \$51.7M in Carl Moyer projects
 - 88% are located in disadvantaged and low-income communities
- Public workshops in Feb-Apr 2018
- Community input used to target outreach efforts and identify projects for this year's Carl Moyer Program
- About \$19M recommended for clean truck projects (October Board meeting)
- Remaining AB 134 funds for 2018 Carl Moyer Program (November Board meeting)

Volkswagen Settlement (2019)

- Environmental Mitigation Trust (Appendix D)
 - \$423 million for California
 - CARB will serve as lead agency
- Beneficiary Mitigation Plan
 - Approved on April 25, 2018
 - 5 eligible mitigation actions
 - Mostly scrap and replace for heavy-duty sector
 - 10,000 tons of NOx reductions over 10-yr period
 - Funds available starting in 2019

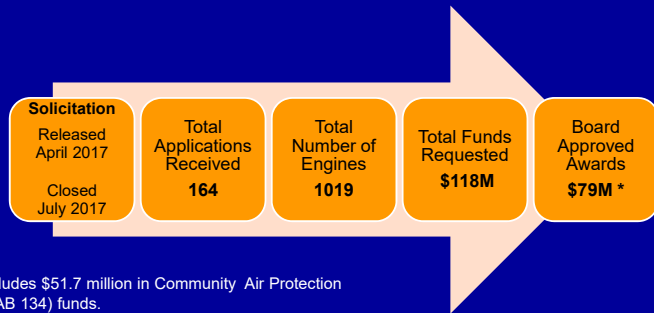


CARB's Beneficiary Mitigation Plan

VW Mitigation Program

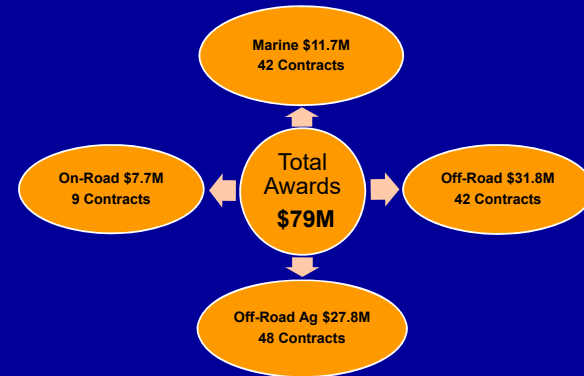
Project Category	Technology	Allocation (millions)	Air District
Zero-Emission Transit, School and Shuttle Buses	Battery electric or fuel cell	\$130	SJVAPCD
Zero-Emission Class 8 Freight and Port Drayage Trucks	Battery electric or fuel cell	\$90	SCAQMD
Zero-Emission Freight and Marine Projects (airport GSE, forklifts, port cargo handling equipment, shore power at port terminals)	Battery electric or fuel cell	\$70	BAAQMD
Combustion Freight and Marine Projects (waste haulers, dump trucks, concrete mixers, switcher locomotives, ferries, tug boats)	Low NOx engine, Tier 4, or Tier 4 equivalent	\$60	SCAQMD
Light-Duty Zero-Emission Vehicle Infrastructure	Electric charger or hydrogen fueling station	\$10	BAAQMD
CARB Reserve		\$63	
Total		\$423	

Carl Moyer Program (Year 19)



* Includes \$51.7 million in Community Air Protection (AB 134) funds.

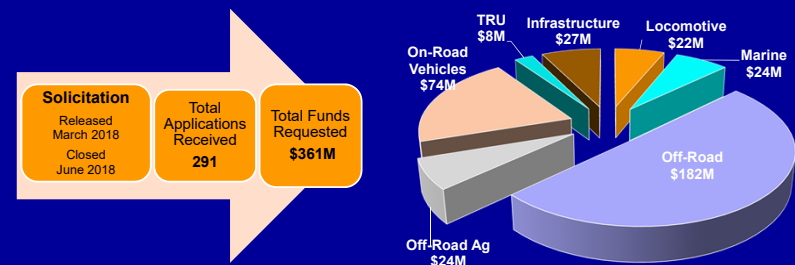
Contract Awards (Year 19)



Year 20 Proposed Funding

Funding Source	Est. Available Funds (million)
Carl Moyer (SB 1107)	\$28.4
State Reserve	\$2.8
FARMER	\$1.8
NOx Remediation Measure	\$2.5
Community Air Protection (AB 134)	\$26
Total (approx.)	\$61.5

Carl Moyer Program (Year 20)



Proposition 1B Status

Program	Project	No. of Equip.	NOx tons/yr	PM tons/yr	Funding (million)
Years 1-4	Trucks	6,297	6,712	216	\$351
	Shore Power	25			
	Locomotives	10			
Year 5 *	Trucks	1,069	<i>In progress</i>		\$111
	Cargo Handling Equipment	14 CHE 6 Chargers			\$2
	Locomotives	10			\$19.2
	Transportation Refrigeration Units (TRUs)	21 TRUs 446 Chargers			\$1.8
Total:					\$485

* All Year 5 funds committed as of March 1, 2018.

Questions/Contact Info

- Questions:

Vicki White (909) 396-3436
vwhite@aqmd.gov





Small Business Assistance Report on July & August 2018 Activities

for
LG&SBA Advisory Group Meeting of
9/14/2018

Services Offered – July

- Permit Application Assistance 156
- Fee Review Committee Request 2
 - 1 Granted (Payment Plan)
 - 1 Denied (Waive Late Fee)
- Air Quality Permit Checklist Processed 51

Services Offered – August

- Permit Application Assistance 182
- On-site Consultations 9
- Fee Review Committee Request 3
 - 2 Granted (Reinstate Permit & refund fee; Payment Plan)
 - 1 Denied (Reinstate Permit)
- Air Quality Permit Checklist Processed 49

9/14/2018

July & August 2018 Report

Permit Assistance – July

- 156 Activities Providing Help with Permit Applications. Examples include:
 - 25 Restaurants
 - 19 Manufacturing Facilities
 - 15 Auto Body Shops
 - 10 Offices
 - 9 General Contractors/Consultants/Architects
 - 9 Retail Stores
 - 4 Machine/Metal Shops
 - 3 Dry Cleaners

9/14/2018

July & August 2018 Report

Permit Assistance – August

- 182 Activities Providing Help with Permit Applications. Examples include:
 - 19 Offices
 - 18 Restaurants
 - 16 General Contractors/ Consultants/ Architects
 - 13 Manufacturing Facilities
 - 13 Retail Stores
 - 10 Auto Body Shops
 - 6 Fuel Dispensing Stations
 - 5 Dry Cleaners

9/14/2018

July & August 2018 Report

Activities – July/August

- Conducted 9 free on-site consultations (August)
 - Manufacturing Facilities
 - Auto Body Shops
 - Gas Station
 - Dry Cleaner
 - Research & Development Facility
- Event(s) Attended
 - FACCOC Green Health Expo in Garden Grove

9/14/2018

July & August 2018 Report

Dry Cleaner Grants Issued (as of 8/2018)

- Professional Wet Cleaning 148
- CO₂ Machines 4
- Hydrocarbon (funds expended) 488

9/14/2018

July & August 2018 Report

Small Business Activity July 2017 – July 2018

ACTIVITY	Permit Assistance	On-Site Consultations	Variance Assistance	Fee Review Requests	Air Quality Permit Checklists
Jul-2017	264	20	0	3	120
Aug-2017	314	8	0	4	159
Sep-2017	206	5	1	10	66
Oct-2017	226	0	0	4	92
Nov-2017	243	11	0	7	97
Dec-2017	188	6	0	5	70
Jan-2018	276	14	1	4	60
Feb-2018	293	6	1	4	60
Mar-2018	276	0	0	2	62
Apr-2018	251	14	0	3	62
May-2018	259	6	0	0	82
Jun-2018	188	4	0	5	62
Jul-2018	156	0	0	2	51
TOTAL	3140	94	3	53	1043

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July & August 2018 Report

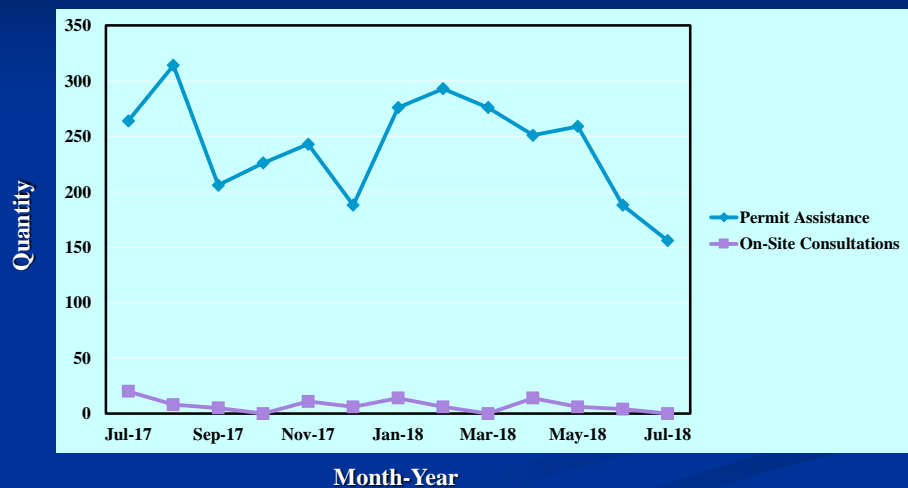
Small Business Activity August 2017 – August 2018

ACTIVITY	Permit Assistance	On-Site Consultations	Variance Assistance	Fee Review Requests	Air Quality Permit Checklists
Aug-2017	314	8	0	4	159
Sep-2017	206	5	1	10	66
Oct-2017	226	0	0	4	92
Nov-2017	243	11	0	7	97
Dec-2017	188	6	0	5	70
Jan-2018	276	14	1	4	60
Feb-2018	293	6	1	4	60
Mar-2018	276	0	0	2	62
Apr-2018	251	14	0	3	62
May-2018	259	6	0	0	82
Jun-2018	188	4	0	5	62
Jul-2018	156	0	0	2	51
Aug-2018	182	9	1	3	49
TOTAL	3058	83	4	53	972

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July & August 2018 Report

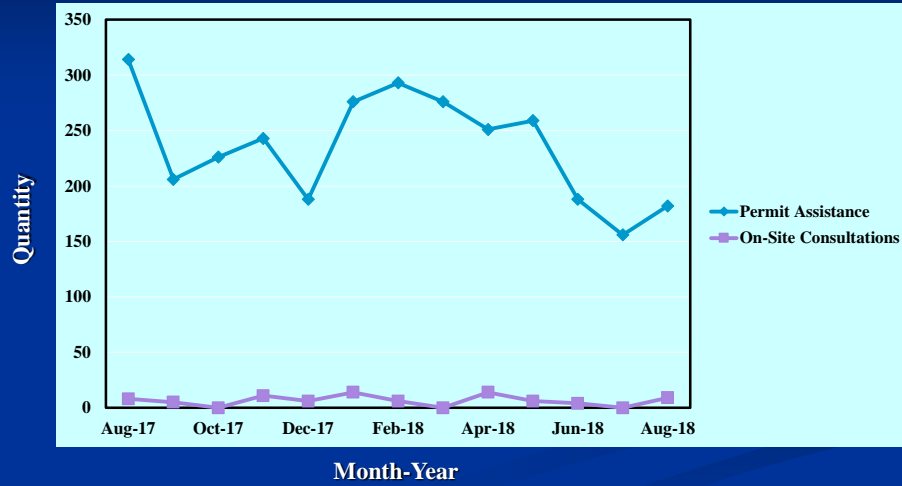
Small Business Activity July 2018



9/14/2018

July & August 2018 Report

Small Business Activity August 2018



9/14/2018

July & August 2018 Report