



**South Coast
Air Quality Management District**
21865 Copley Drive, Diamond Bar, CA 91765
(909) 396-2000, www.aqmd.gov

TECHNOLOGY COMMITTEE MEETING

Committee Members

Council Member Joe Buscaino, Chair
Mayor Larry McCallon
Mayor Pro Tem Judith Mitchell
Council Member Dwight Robinson
Supervisor Janice Rutherford
Supervisor Hilda L. Solis

**January 19, 2018 ♦ 12:00 p.m. ♦ Conference Room CC8
21865 Copley Drive, Diamond Bar, CA 91765**

TELECONFERENCE LOCATION

**Los Angeles City Hall
200 N. Spring Street, Room 410
Los Angeles, CA 90012**

(The public may participate at any location listed above.)

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

Toll Free: 866-244-8528

Listen Only Passcode: 5821432

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

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

AGENDA

CALL TO ORDER

ACTION ITEMS – Items 1 through 4

FEBRUARY BOARD AGENDA ITEMS

1. Issue Request for Qualifications for Technical Assistance to Support Technology Advancement Activities (*Motion Requested*)

This action is to issue a Request for Qualifications (RFQ) to solicit statements of qualifications from individuals and organizations capable of providing technical expertise in a variety of specialized areas to support SCAQMD's technology advancement activities and

Vicki White
Technology
Implementation
Manager

implementation efforts. It is anticipated that multiple awards for level-of-effort contracts will be made from this solicitation.

2. Renew California Fuel Cell Partnership Membership and Participation, Receive and File California Fuel Cell Partnership Board Meeting Agenda and Quarterly Updates, and Participate in California Hydrogen Infrastructure Research Consortium (*Motion Requested*)

Lisa Mirisola
Program
Supervisor

Since early 2000, SCAQMD has been a California Fuel Cell Partnership (CaFCP) member and for even longer has been building partnerships with various California agencies and national laboratories. These partners propose forming a consortium focused on near-term hydrogen infrastructure, and recently submitted a joint proposal led by GO-Biz to advance hydrogen infrastructure relevant to the DOE H2@Scale Initiative, a concept to explore wide-scale hydrogen production and utilization in the U.S. These actions are to execute one or more contracts with Frontier Energy, Inc., acting on behalf of the CaFCP, in an amount not to exceed \$245,000 from the Clean Fuels Program Fund (31) to renew SCAQMD's CaFCP membership for 2018, cofund 50 percent of the CaFCP Regional Coordinator position, and provide support for fuel cell truck and bus codes and standards coordination as well as to receive and file the last CaFCP Board Meeting Agenda and recent Quarterly Updates. This action is to also execute an agreement with the National Renewable Energy Laboratory for \$100,000 from the Clean Fuels Program Fund (31) to participate in the California Hydrogen Infrastructure Research Consortium.

3. Demonstrate Zero Emission Cargo Handling Vehicles at Port of Long Beach (*Motion Requested*)

Patricia Kwon
AQ Specialist

The Port of Long Beach and its project partners have received \$5.3 million in funding from CARB through its Low Carbon Transportation Investments and Air Quality Improvement Program grant solicitation to demonstrate five zero emission cargo handling vehicles at the Port of Long Beach. This demonstration includes three battery electric top handlers, one battery electric yard truck and one hydrogen fuel cell yard truck. The project will provide a unique opportunity to directly compare the performance of battery electric trucks to hydrogen fuel cell trucks. Project partners include CARB, Port of Long Beach, Long Beach Container Terminal and SSA Marine Terminal for a total project cost of \$8.3 million. This action is to execute a contract with the Port of Long Beach in an amount not to exceed \$350,000 from the Clean Fuels Fund (31).

4. Recognize Revenue to Develop Test Standard for Performance Verification of Low-Cost Indoor Air Quality Sensors (*Motion Requested*)

Andrea Polidori
Atmospheric
Measurements
Manager

DOE's Office of Energy Efficiency and Renewable Energy awarded its competitive research grant, "Building America Industry Partnerships for High Performance Housing Innovation," to Newport Partners, LLC, to develop an American Society for Testing and Materials test standard for performance verification of low-cost indoor air quality sensors. SCAQMD and researchers from Home Ventilating Institute and Texas A&M Riverside Energy Efficiency Laboratory will collaborate with Newport Partners, LLC, on the development of this test standard. This action is to recognize revenue up to \$56,106 from Newport Partners, LLC, to support collaboration of this project.

OTHER MATTERS

5. Other Business – *Any member of the Committee, 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. (Gov't. Code Section 54954.2)*

6. Public Comment Period

Members of the public may address this body concerning any agenda item before or during consideration of that item (Gov't. Code Section 54954.3(a)). All agendas for regular meetings are posted at District Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of a regular meeting. At the end of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Committee's authority. Speakers may be limited to three (3) minutes each.

7. Next Meeting Date – Friday, February 16, 2018 at 12:00 pm

ADJOURNMENT

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 Stationary Source Committee meeting. Any accommodations must be requested as soon as practicable. Requests will be accommodated to the extent feasible. Please contact Pat Krayser at 909.396.3248 from 7:30 a.m. to 6:00 p.m., Tuesday through Friday, or send the request to pkrayser@aqmd.gov.

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.

[Go to SLIDES](#)

DRAFT
Technology Committee Agenda #1

BOARD MEETING DATE: February 2, 2018

AGENDA NO.

PROPOSAL: Issue Request for Qualifications for Technical Assistance to Support Technology Advancement Activities

SYNOPSIS: This action is to issue a Request for Qualifications (RFQ) to solicit statements of qualifications from individuals and organizations capable of providing technical expertise in a variety of specialized areas to support SCAQMD's technology advancement activities and implementation efforts. It is anticipated that multiple awards for level-of-effort contracts will be made from this RFQ.

COMMITTEE: Technology, January 19, 2018; Recommended for Approval

RECOMMENDED ACTION:

Issue RFQ #Q2018-12 for technical assistance to support technology advancement activities.

Wayne Natri
Executive Officer

MMM:FM

Background

The Technology Advancement Office (TAO) administers and manages both the implementation of incentive programs as well as the pre-commercial research, development, demonstration and deployment (RDD&D) of low and zero emission technologies.

TAO's Clean Fuels Program, which is a far-reaching effort, incorporating a mix of short-, medium-, and long-term goals, representing a continuum of technology improvements to achieve clean air in the Basin, receives more than \$12 million annually in revenue and on average has 100 active contracts open every year. TAO periodically releases solicitations to obtain consultants to augment in-house expertise and assist staff in technical reviews, coordination of projects, comparative analyses and implementation of incentive programs. Due to the rapid pace at which technologies are evolving,

additional assistance is required for advanced, pre-commercial technology demonstration programs.

In addition, there are multiple state incentive programs, specifically the Carl Moyer, the AB 134, the Proposition 1B-Goods Movement and the Lower Emission School Bus Programs, which are anticipated to provide over \$250 million to the South Coast region. Comprehensively, these various incentive programs have 1,500 active contracts at any one time with available funding of over \$300 million. Expert consultants and administrative resources are required to assist staff in establishing the procedures for implementation of these programs.

Proposal

This action is to issue an RFQ for technical assistance to solicit qualifications from individuals and organizations capable of providing technical assistance in a variety of areas to support TAO activities in the following areas. In each case, it will first be determined whether the work can be performed in-house. Proposals will be due March 7, 2018, with anticipated Board approval following in June.

Mobile Applications

Low and zero emissions technologies for light-, medium-, and heavy-duty vehicles (on- and off-road applications), including:

- Fuel cells, hybrids (electric, plug-in, hydraulic and others) and alternative fuels;
- Components (e.g., batteries and ultracapacitors) and system expertise (e.g., software controllers);
- Engines and exhaust treatment technologies (e.g., catalyst and trap systems); and
- Demonstration of low and zero emissions technologies in fleets.

Fuels

Fuel processing, reformulation and emission analyses for:

- Alternative and conventional fuels;
- Biofuels (ethanol, biodiesel and biomass);
- Hydrogen infrastructure; and
- Gas-to-liquid (GTL) fuels.

Stationary Applications

- Advanced combustion technologies;
- Advanced or innovative aftertreatment control technologies;
- Renewable technologies; and
- Fuel cell, hybrid and hydrogen-energy co-production.

Emissions and Analyses

- Toxic air contaminants from motor vehicles and their potential formation;
- Health and safety issues related to new technologies;

- Mobile source data compilation and analyses;
- Advanced technology transition (bridging) analyses; and
- Advanced technology assessments, including market penetration and consumer acceptance studies.

Incentive Programs

Support for implementing incentive program activities including but not limited to:

- Technology analyses and comparisons including cost-effectiveness;
- Development, evaluation and implementation of program guidelines;
- Proposal evaluations and emissions analyses;
- Infrastructure evaluation and inspections;
- Outreach to fleets for implementing clean technologies;
- Outreach to disadvantaged and low-income communities; and
- Data gathering and reporting.

Bid Evaluation

Consultants will be selected based on the criteria in the RFQ, and successful bidders shall be retained through level-of-effort contracts based on their area(s) of expertise and TAO's needs so that work assignments can be issued for specific tasks and projects without requiring further lengthy consultant selection processes for each individual project. It is anticipated that multiple awards will be made from this RFQ.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFQ 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 RFQ 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."

Benefits to SCAQMD

Outside expertise will provide an effective means of evaluating new technologies and assessing emission reductions, thus supporting implementation of TAO's RDD&D and incentive programs.

Resource Impacts

Due to the indefinite nature of the work, the actual contract amounts cannot be determined at this time. Multiple awards are anticipated from this RFQ. The total amount of funding to be recommended for the Board's consideration for each contract will be dependent upon the consultant's qualifications and SCAQMD needs. The Clean Fuels Fund (31) and the administrative portions of the incentive program funds will be used for awards made under this RFQ.

Attachment

RFQ #Q2018-12 - Technical Assistance to Support SCAQMD's Technology Advancement Activities and Implementation Efforts



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REQUEST FOR QUALIFICATIONS

Technical Assistance to Support SCAQMD's Technology Advancement Activities and Implementation Efforts

Q2018-12

South Coast Air Quality Management District (SCAQMD) requests qualifications for the following purpose according to terms and conditions attached. In the preparation of this Request for Qualifications (RFQ), the words "Contractor," "Consultant," and "Firm" are used interchangeably.

PURPOSE

The purpose of this RFQ is to solicit statement of qualifications from individuals and organizations capable of providing technical assistance in a variety of specialized areas to support SCAQMD's technology advancement activities and implementation efforts.

INDEX - The following are contained in this RFQ:

Section I	Background/Information
Section II	Contact Person
Section III	Schedule of Events
Section IV	Participation in the Procurement Process
Section V	Statement of Work/Schedule of Deliverables
Section VI	Required Qualifications
Section VII	Proposal Submittal Requirements
Section VIII	Proposal Submission
Section IX	Proposal Evaluation/Contractor Selection Criteria
Section X	Funding
Section XI	Sample Contract

Attachment A - Participation in the Procurement Process

Attachment B - Certifications and Representations

SECTION I: BACKGROUND/INFORMATION

The SCAQMD is a regional governmental agency responsible for meeting air quality health standards in Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties.

Mobile sources emit the majority of air pollution in the South Coast Air Basin (Basin). In particular, heavy-duty diesel vehicles emit high levels of nitrogen oxides (NOx), a precursor to photochemical smog, as well as diesel particulate exhaust, which has been categorized by the California Air Resources Board (CARB) as a toxic air contaminant.

The Air Quality Management Plan (AQMP) for the Basin identifies the application of clean-burning alternative fuels (e.g., natural gas, ethanol, and hydrogen), advanced vehicle technologies (e.g., fuel cells, hybrid electric and plug-in hybrid electric vehicles, battery

electric) and advanced stationary source pollution control technologies to meet the national ambient air quality standards. These air quality gains, however, may only be realized if programs are in place to develop, commercialize and implement these technologies. As a result, the SCAQMD seeks to implement aggressive programs to develop and demonstrate pre-commercial technologies as well as incentivize early-commercial technologies.

SECTION II: CONTACT PERSON:

Questions regarding the content or intent of this RFQ or on procedural matters should be addressed to:

Mobile and Stationary Source

Naveen Berry
Technology Demonstration Manager
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-2363
Email: nberry@aqmd.gov

Incentive Programs

Vicki White
Technology Implementation Manager
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-3436
Email: vwhite@aqmd.gov

SECTION III: SCHEDULE OF EVENTS

Date	Event
February 2, 2018	RFQ Released
March 7, 2018	RFQ Closes - No Later Than 1:00 p.m.
June 1, 2018	SCAQMD Board Approval of Awards

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

It is the policy of SCAQMD to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts. Attachment A to this RFQ contains definitions and further information.

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

A. Objective

The objective of this RFQ is to solicit qualifications from individuals and organizations (hereafter referred to as "consultant") with strong technical expertise in one or more of the areas of work performed by the Technology Advancement Office at the SCAQMD, including but not limited to, the following:

Mobile Applications

Low and zero emission technologies for light-, medium-, and heavy-duty vehicles (on- and off-road applications), including:

- Fuel cells, hybrids (electric, plug-in, hydraulic and others), and alternative fuels;
- Component (e.g., batteries and ultracapacitors) and system expertise (e.g., software controllers);
- Engines and exhaust treatment technologies (e.g., catalyst and trap systems); and
- Demonstration of low and zero emission technologies in fleets

Fuels

Fuel processing, reformulation and emission analyses for:

- Alternative and conventional fuels;
- Biofuels (ethanol, biodiesel and biomass);
- Hydrogen infrastructure; and
- Gas to liquid (GTL) fuels.

Stationary Applications

- Advanced combustion technologies;
- Advanced or innovative aftertreatment control technologies;
- Renewable technologies; and
- Fuel cell, hybrid and hydrogen energy co-production.

Emissions and Analyses

- Toxic air contaminants from motor vehicles and their potential formation;
- Health and safety issues related to new technologies;
- Mobile source data compilation and analyses;
- Advanced technology transition (bridging) analyses; and
- Advanced technology assessments, market penetration and acceptance studies.

Incentive Programs

- Technology analyses and comparisons, including cost-effectiveness;
- Development, evaluation and implementation of program guidelines;
- Direct support in project evaluations, case management, emissions testing and other activities directly related to implementation of incentive funding programs;
- Proposal evaluations and emissions analyses;
- Infrastructure evaluation and inspections;
- Marine vessel emission control technologies;
- Locomotive emission reduction or control technologies
- Outreach to fleets for implementing clean technologies;
- Outreach to disadvantaged and low-income communities;
- Staff training on technical issues and electronic evaluation tools; and
- Data gathering and reporting.

This RFQ is being used to leverage staff resources with specialized outside expertise. The selected consultant(s) shall perform various tasks and functions designed to facilitate cooperation and ensure adequate information exchange to SCAQMD staff, key government agencies, existing and potential end users of advanced vehicle and stationary technologies, and industry organizations. Important issues to be monitored, assessed and acted upon may include the status of major alternative fuel technology developmental efforts, promotion of commercially available alternative-fuel engines, advanced technology development and assistance to entities implementing alternative fuel technologies among others.

In addition, the selected consultant(s) shall perform various tasks and functions related to the implementation of SCAQMD's incentive funding programs, including but not limited to: Proposition 1B – Goods Movement Emission Reduction Program, Carl Moyer Program, Voucher Incentive Program, and the Enhanced Fleet Modernization Program (Replace Your Ride).

B. Statement of Work

The selected Consultant(s) shall perform tasks on an as-needed basis upon receiving written notification from the SCAQMD's Deputy Executive Officer for Science & Technology Advancement. All work will be assigned and pre-approved by the Project Manager and the Deputy Executive Officer. Each assignment will have specific tasks to be conducted and resources to be utilized. No work can be implemented without authorized parties prior approval and acceptance of specific, detailed task assignments. Potential tasks include the following:

- Assist SCAQMD staff in evaluating the emission benefits, availability, cost effectiveness, and obstacles to the commercialization of alternative fuel technologies for on- and off-road vehicles and equipment, including but not limited to trucks, cargo-handling equipment, marine vessels, construction equipment and locomotives.
- Assist SCAQMD staff in evaluating the technical progress and emissions data of demonstration projects relating to hybrid, hydraulic and alternative fueled vehicles.
- Assist SCAQMD staff in evaluating the technical status and emissions data of demonstration projects relating to control of diesel emissions.
- Assist SCAQMD staff with impact analysis of SCAQMD rules that are specific to mobile sources including light-, medium- and heavy-duty fleet operations.
- Assist with SCAQMD efforts to facilitate the development and commercialization of zero tailpipe emission technologies for vehicles (light-duty and transit applications) and stationary applications.
- Assist SCAQMD staff in preparing briefings and technical papers, and participate in technical forums in support of alternative fuel and fuel cell development demonstration and commercialization, and other advanced mobile and stationary technologies.
- Draft briefings and technical papers for technical symposia sponsored by the Society of Automotive Engineers (SAE), Air Pollution Technology Association (APTA) and other organizations.
- Assist SCAQMD staff in evaluating the current status of advanced chemical and mechanical energy storage technologies for application to vehicles as well as other applications, e.g., cargo-handling equipment.
- Assist SCAQMD staff in evaluating the current status of renewable energies for mobile and stationary sources.

- Assist SCAQMD staff in evaluating the current status of hydrogen storage, hydrocarbon reforming technologies and innovative components for hydrogen infrastructure.
- Assist SCAQMD staff in evaluating zero emission goods movement technologies.
- Assist SCAQMD staff in evaluating electric, plug-in electric and hybrid vehicle technologies and EV charging infrastructure.
- Assist SCAQMD staff in technical evaluation of proposals submitted to the Technology Advancement Office for funding consideration pertaining to alternative fuels, battery, hydrogen, fuel cells and other advanced vehicle and stationary technologies.
- Perform other tasks relating to low and zero emission vehicle and/or stationary source technologies or to the implementation of SCAQMD incentive programs as directed by SCAQMD's Deputy Executive Officer.
- Assist SCAQMD staff with technical assistance, applications and evaluations for state incentive programs.
- Assist SCAQMD staff in preparing briefings, presentations and technical papers, and participate in technical forums and incentive program workshops.
- Assist SCAQMD staff in technical evaluation of proposals submitted to the Technology Advancement Office for funding consideration pertaining to incentive programs.
- Assist SCAQMD staff by providing clerical support for incentive program implementation, including but not limited to: filing, data entry, photocopying, workshop assistance, contracting, disseminate program information, translation and collection of annual report information.
- Interface with other SCAQMD contractors to develop technical information, plan and implement conferences, and provide outreach and publication materials.
- Assist staff with identifying, evaluating, and conducting outreach for disadvantaged and low-income communities and developing community action programs.

Schedule of Deliverables

Specific deliverables and time schedules for task completion will be established by the Deputy Executive Officer, or his designee, in writing when each task is authorized. Deliverables may include but not be limited to one or more of the following: written and/or oral technical reports, newsletters, articles, draft position papers, language for control measures, attendance at meetings/workshops with follow-up reports, etc.

SECTION VI: REQUIRED QUALIFICATIONS

- A. The SCAQMD requests submittal of a qualifications package that includes detailed expertise and capabilities of individuals and organizations who meet a combination of the technical qualifications listed below. Individuals can team to submit a joint bid if they have complementary expertise and qualifications that collectively meet the requirements. The qualifications package should include evidence documenting experience, expertise and capabilities wherever possible.
- B. Bidder(s) shall be selected for contract award based on the best combinations of qualifications.
1. Advanced college degree in an engineering, chemistry or related discipline.
 2. At least five (5) years' professional experience in the area(s) of expertise.
 3. The ability to quickly respond, on short notice, to requests for technical assistance.
 4. Working knowledge of CARB and SCAQMD programs, policies, regulations, etc. regarding toxic contaminants, mobile sources (on-road, off-road and/or marine vessels), stationary source control technologies, fuel processing, alternative fuel vehicles, and/or zero emission vehicles/equipment and supporting infrastructure.
 5. Knowledge of state and local permitting requirements for the establishment of alternative fuel refueling facilities, including different technologies being used and types of vehicles using these facilities.
 6. Experience in planning, permitting and installing infrastructure for zero emission vehicles and equipment.
 7. Proven expertise in any of the technical areas or any combination of areas as listed in Section V: Statement of Work / Schedule of Deliverables.
 8. Extensive knowledge of major research and development programs involving the technologies listed in Section V: Statement of Work / Schedule of Deliverables.
 9. Experience drafting, reviewing and assessing legislation in the field(s) of expertise.
 10. Authorship of peer-reviewed technical papers and/or articles on the field(s) of expertise.
 11. Established relationships with equipment manufacturers and industry and professional associations.
 12. Experience in implementation of incentive programs designed to reduce emissions from diesel equipment and vehicles and other sources of air pollution.
 13. Experience in conducting outreach to communities, and developing outreach plans for disadvantaged and/or low-income communities.

SECTION VII: SUBMITTAL REQUIREMENTS FOR QUALIFICATIONS PACKAGE

The submitted qualifications package must follow the format outlined below and all requested information must be supplied. Failure to submit the qualifications package in the required format may result in elimination from the evaluation process. SCAQMD may modify the RFQ or issue supplementary information or guidelines during the proposal preparation period prior to the due date. Please check our website for updates (<http://www.aqmd.gov/grants-bids>). The cost for developing the qualifications package is the responsibility of the Consultant and shall not be chargeable to SCAQMD.

The qualifications package must include the following three sections:

- Section I – Statement of Qualifications
- Section II – Cost Information
- Section III - Certifications and Representations included in Attachment B to this RFQ, must be completed and executed by an authorized official of the Contractor.

A separate cover letter including the name, address, and telephone number of the Consultant, and signed by the person or persons authorized to represent the Firm should accompany the qualifications package upon submittal. The Firm's contact information as follows should also be included in the cover letter:

1. Address and telephone number of office in, or nearest to, Diamond Bar, California.
2. Name and title of Firm's representative designated as contact.

SECTION 1 – STATEMENT OF QUALIFICATIONS

DO NOT INCLUDE ANY COST INFORMATION IN SECTION I.

Section 1 must include the following subsections:

Summary - State overall approach to meeting the objectives and satisfying the scope of work to be performed, the sequence of activities, and a description of methodology or techniques to be used.

Management Structure - Describe the proposed management structure, program monitoring procedures, and organization of the proposed team. Provide a statement addressing the Firm's ability and willingness to commit and maintain staffing to successfully complete the work within the mutually agreed schedule.

Qualifications - Describe the technical capabilities of the Firm. Provide references of other similar studies or projects performed during the last five years demonstrating ability to successfully complete the work. Include contact name, title and telephone number for any references listed. Provide a statement of your Firm's background and related experience in performing similar services for other governmental organizations.

Assigned Personnel - Provide the following information about the staff to be assigned to the SCAQMD Technology Advancement work activities:

1. List all key personnel that will be assigned to the SCAQMD's Technology Advancement work activities by level, name and location. Provide a resume or similar statement describing the background, qualifications and experience of the lead person and all persons assigned. Substitution of project manager or lead personnel will not be permitted without prior written approval of SCAQMD.
2. Provide a statement indicating whether or not 90% of the work will be performed within the geographical boundaries of SCAQMD.
3. Provide a statement of education and training programs provided to, or required of, the staff identified for participation in the project, particularly with reference to

management consulting, governmental practices and procedures, and technical matters.

4. Provide a summary of your Firm's general qualifications to meet required qualifications and fulfill statement of work, including additional Firm personnel and resources beyond those who may be assigned to work on the SCAQMD Technology Advancement activities.

Subcontractors – The work activities of the Technology Advancement Office at the SCAQMD may require expertise in multiple technical areas. List any subcontractors that will be used, identifying functions to be performed by them, their related qualifications and experience and the total number of hours or percentage of time they will be able to spend working on SCAQMD's Technology Advancement activities.

Conflict of Interest - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of SCAQMD. SCAQMD recognizes that prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Firm will not be automatically disqualified by reason of work performed for such clients, SCAQMD reserves the right to consider the nature and extent of such work in evaluating the qualifications package.

Additional Data - Provide other essential data that may assist in the evaluation of the qualifications package.

SECTION 2 – COST INFORMATION

Name and Address – This section must list the name and complete address of the Firm in the upper left-hand corner.

Cost Proposal – SCAQMD anticipates awarding a Time and Materials (T&M) contract. Cost information must be provided as listed below:

1. Detail must be provided by the following categories:
 - A. Labor – This section must list the fully burdened hourly rates for each level of professional and administrative staff, including subcontractors, to be used to perform the tasks required by this RFQ. A breakdown of the proposed billing rates must identify the direct labor rate, overhead rate and amount, fringe benefit rate and amount, General and Administrative rate and amount, and proposed profit or fee. Also, include the proposed annual escalation formula for the proposed billing rates, if applicable. Provide a basis of estimate justifying the proposed labor mix.
 - B. Travel Costs - Indicate amount of travel costs, if any expected, with the basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging and car rental.
 - C. Other Direct Costs -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these anticipated costs.
2. It is the policy of the SCAQMD to receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. SCAQMD will give preference, where appropriate, to vendors who certify that they will provide "most favored customer" status to the

SCAQMD. To receive preference points, the Firm shall certify that SCAQMD is receiving "most favored customer" pricing in the Business Status Certifications page of Section III, Attachment B – Certifications and Representations.

SECTION 3 - CERTIFICATIONS AND REPRESENTATIONS (see Attachment B to this RFQ)

SECTION VIII: SUBMISSION OF QUALIFICATIONS PACKAGE

All qualifications packages must be submitted according to specifications set forth in the sections above and this section. Failure to adhere to these specifications may be cause for rejection of the qualification package by the SCAQMD.

Signature - All qualifications packages must be signed by an authorized representative of the Firm.

Due Date - **All qualification packages are due no later than 1:00 p.m., Wednesday, March 7, 2018, and should be directed to:**

Procurement Unit
South Coast Air Quality Management
District 21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-3520

Submittal - Submit four (4) complete copies of the qualifications package in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Firm and the words "Request for Qualifications #Q2018-12."

Late submittals will not be accepted under any circumstances.

Grounds for Rejection - A qualifications package may be immediately rejected if:

- It is not prepared in the format described, or
- It is signed by an individual not authorized to represent the Firm.

Modification or Withdrawal - Once submitted, the qualifications package cannot be altered without the prior written consent of SCAQMD. All qualifications packages shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the March 7, 2018 due date.

SECTION IX: EVALUATION/CONTRACTOR SELECTION CRITERIA

- A. Qualifications packages will be evaluated by a panel of three to five SCAQMD staff members familiar with the work activities and resource needs of the Technology Advancement Office at the SCAQMD. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the Executive Officer and/or the Governing Board of SCAQMD for final selection of a contractor(s) and negotiation of a contract(s).
- B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of the qualifications packages. The evaluation panel members shall evaluate the

qualifications packages according to the specified criteria and numerical weightings set forth below.

1. Evaluation Criteria

(a) Technical Criteria	<u>Points</u>
Technical expertise, training, and education	30
Previous experience, including relevant positions held, number of years and actual work done in the selected area of expertise, evaluations conducted, papers published, etc.	40
(b) Labor Rates*	<u>30</u>
<i>*The labor rates will be evaluated based on the fully burdened labor rates for each proposed technical expert and the clerical/technical support. The labor rates will be compared to other Firms with qualifications in the same technical areas or with knowledge of similar work being done by other agencies, companies and/or consultants. The most competitive labor rates will be given the highest points"</i>	
TOTAL:	100
(c) <u>Additional Points</u>	
Small Business or Small Business Joint Venture	10
DVBE or DVBE Joint Venture	10
Use of DVBE or Small Business Subcontractors	7
Low Emission Vehicle Business	5
Local Business (Non-Federally Funded Projects Only)	5
Off-Peak Hours Delivery Business	2
Most Favored Customer	2

The cumulative points awarded for small business, DVBE, use of small business or DVBE subcontractors, low emission vehicle business, local business, and off-peak hours delivery business shall not exceed 15 points.

Self-Certification for Additional Points

The award of these additional points shall be contingent upon the Firm completing the Self-Certification section of Attachment B – Certifications and Representations and/or inclusion of a statement in the qualifications package self-certifying that the Firm qualifies for additional points as detailed above.

2. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the Firm must submit a self- certification or certification from the State of California Office of Small Business Certification and Resources at the time of proposal submission certifying that the Firm meets the

requirements set forth in Section III. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Low Emission Vehicle Business, the Firm must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to SCAQMD are delivered in vehicles that operate on either clean fuels or if powered by diesel fuel, that the vehicles have particulate traps installed. To receive points as an Off-Peak Hours Delivery Business, the Firm must submit, at proposal submission, certification of its commitment to delivering supplies and materials to SCAQMD between the hours of 10:00 a.m. and 3:00 p.m. To receive points for Most Favored Customer status, the Firm must submit, at proposal submission, certification of its commitment to provide most favored customer status to the SCAQMD. The cumulative points awarded for small business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Low Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

3. For procurement of Research and Development (R&D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R&D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.
4. The most competitive labor rates for each technical area will be awarded the maximum cost points available and all other qualifications packages will receive points on a prorated basis.
- C. During the selection process the evaluation panel may wish to interview some Firms for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Firm of information presented in his/her qualifications package, upon request by SCAQMD.
- D. The Executive Officer or Governing Board may award the contract to a Firm other than the Firm receiving the highest rating in the event the Governing Board determines that another Firm from among those technically qualified would provide the best value to SCAQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Qualifications (RFQ), on evidence provided in the qualifications package and on any other evidence provided during the review process.
- E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Firms may be notified of the results by letter.
- F. The Governing Board has approved a Bid Protest Procedure which provides a process for a Bidder or prospective Bidder to submit a written protest to SCAQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to SCAQMD Procurement Department.
- G. The Executive Officer or Governing Board may award contracts to more than one Firm if

in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple Firms.

- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional Firms for a grant or contract if additional funds become available.
- I. Disposition of Qualifications Packages – Pursuant to SCAQMD's Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all qualifications packages. All qualifications packages become the property of SCAQMD, and are subject to the California Public Records Act. One copy of the qualifications package shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the Firm's expense.

SECTION X: FUNDING

Due to the indefinite nature of the work, the actual contract amount and contract duration cannot be determined at this time. Multiple awards may result from this RFQ. Work will be awarded on an as needed basis. Firm will be reimbursed on a Time and Materials (T&M) basis for work performed against tasks.

SECTION XI: SAMPLE CONTRACT

A sample contract to carry out the work described in this RFQ is available on SCAQMD's website at <http://www.aqmd.gov/grants-bids> or upon request from the RFQ Contact Person (Section II).

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

A. It is the policy of South Coast Air Quality Management District (SCAQMD) to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts.

B. Definitions:

The definition of minority, women or disadvantaged business enterprises set forth below is included for purposes of determining compliance with the affirmative steps requirement described in Paragraph G below on procurements funded in whole or in part with federal grant funds which involve the use of subcontractors. The definition provided for disabled veteran business enterprise, local business, small business enterprise, low-emission vehicle business and off-peak hours delivery business are provided for purposes of determining eligibility for point or cost considerations in the evaluation process.

1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. a business that 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.
 - b. a business whose management and daily business operations are controlled by one or more women.
 - c. a business which is a sole proprietorship, corporation, or partnership 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-based business.
2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.
3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its 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.
 - b. 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.

- c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or qualifications package submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below. Qualifications packages for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
5. "Small business" as used in this policy 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 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.
7. "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.
8. "Off-Peak Hours Delivery Business" as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.
9. "Benefits Incentive Business" as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to SCAQMD and

commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.

10. "Minority Business Enterprise" as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), 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 or minority persons.

- a. a business whose management and daily business operations are controlled by one or more minority persons.
- b. a business which is a sole proprietorship, corporation, or partnership 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-based business.
- c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and 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, and Taiwan).

11. "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.

12. "Disadvantaged Business Enterprise" as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;

a Small Business Enterprise (SBE);

a Small Business in a Rural Area (SBRA);

a Labor Surplus Area Firm (LSAF); or

a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5% of the lowest cost responsive bid. Low-Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid. Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2% of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid.

- D. Under Request for Qualifications, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least twenty-five (25%) of the total contract value to a DVBE and/or small business. Low-Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process. Businesses offering Most Favored Customer status shall be awarded two (2) points in the evaluation process.
- E. SCAQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of SCAQMD contractual obligations.
- F. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.
- G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.
1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or qualifications packages for a minimum of 30 calendar days before the bid or proposal closing date.
 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
 4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
 5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
 6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

- H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.
- I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the geographical boundaries of SCAQMD. However, if the subject matter of the RFQ calls for the fabrication or manufacture of custom products, only companies performing 90% of the manufacturing or fabrication effort within the geographical boundaries of SCAQMD shall be entitled to the local business preference. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
- J. In compliance with federal fair share requirements set forth in 40 CFR Part 33, SCAQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.

ATTACHMENT B



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
Assistant 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.

Request for Taxpayer Identification Number and Certification

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

Print or type See Specific Instructions on page 2.	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; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member 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.)	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 Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.																																																			
Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center; padding: 2px;">Social security number</td> </tr> <tr> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 10%; text-align: center;">[]</td> <td style="width: 10%; text-align: center;">[]</td> </tr> <tr> <td colspan="10" style="text-align: center; padding: 2px;">or</td> </tr> <tr> <td colspan="10" style="text-align: center; padding: 2px;">Employer identification number</td> </tr> <tr> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">-</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> </tr> </table>	Social security number										[]	[]	[]	[]	-	[]	[]	-	[]	[]	or										Employer identification number										[]	[]	-	[]	[]	[]	[]	[]	[]	[]
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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 on page 3.			
Sign Here	<table style="width: 100%;"> <tr> <td style="width: 60%;">Signature of U.S. person ▶ _____</td> <td style="width: 40%;">Date ▶ _____</td> </tr> </table>	Signature of U.S. person ▶ _____	Date ▶ _____
Signature of U.S. person ▶ _____	Date ▶ _____		

General Instructions

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

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

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? on page 2.

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?* on page 2 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 Publication 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 28% 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 Part II instructions on page 3 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* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

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* on page 3 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, list first, and then circle, the name of the person or entity whose number you entered in Part I of 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 in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in 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.

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. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), 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 the chart on page 4 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. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

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

***Note.** 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 Publication 4535, *Identity Theft Prevention and Victim Assistance*.

Victims of identity theft who are experiencing economic harm or a system 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 1-800-368-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov 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.

2017 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 PMS 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 and search for **privacy notice**. 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 MSRRA.

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 MSRRA 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

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.



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.



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

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

1. 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.
2. This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
3. 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 _____

Agenda Item #1

Vicki White

Issue Request for Qualifications for
Technical Assistance To Support
Technology Advancement Activities

Background

- Technology Demonstration
 - \$12M annually
 - > 100 active contracts
 - Expert input and assistance needed
- Technology Implementation
 - Carl Moyer Program
 - Lower Emission School Bus Program
 - Proposition 1B - Goods Movement
 - Enhanced Fleet Modernization Program (EFMP)
 - > 1,500 active contracts
 - Support needed to administer programs and conduct outreach to disadvantaged and low-income communities



Class 8 Electric Truck



Near-Zero Transit Bus



Demonstration: Areas of Expertise Requested

- Mobile applications
 - Low and zero emission technologies, components and systems
- Fuels
 - Alternative and conventional fuels comparisons
- Stationary technologies
 - Advanced combustion and renewables
- Emissions and analyses
 - In-use measurements and health analyses



Implementation:

Areas of Expertise Requested

- Key Incentive Programs
 - Proposition 1B – Goods Movement Emission Reduction Program (\$137 million in process)
 - Carl Moyer & School Bus Programs (\$56 million annually)
 - Enhanced Fleet Modernization Program (EFMP), Replace Your Ride –\$5 - \$10 million annually
 - AB 134 - \$107.5 million to South Coast
- Expertise Needed
 - Proposal/application review and evaluation
 - Reporting to CARB
 - Assistance in administration of projects
 - Outreach/community meetings



Proposition 1B
Trade Corridors

Proposed Schedule

- Release RFQ February 2, 2018
- Receive Proposals March 7, 2018
- Anticipated Board Approval* June 1, 2018

* Anticipate multiple awards in different areas

Recommended Action

Issue RFQ #Q2018-12 for technical assistance to support technology advancement activities

[Go to SLIDES](#)

DRAFT
Technology Committee Agenda #2

BOARD MEETING DATE: February 2, 2018

AGENDA NO.

PROPOSAL: Renew California Fuel Cell Partnership Membership and Participation, Receive and File California Fuel Cell Partnership Board Meeting Agenda and Quarterly Updates, and Participate in California Hydrogen Infrastructure Research Consortium

SYNOPSIS: Since early 2000, SCAQMD has been a California Fuel Cell Partnership (CaFCP) member and, even longer, has been building partnerships with various California agencies and national laboratories. These partners propose forming a consortium focused on near-term hydrogen infrastructure, and recently submitted a joint proposal led by GO-Biz to advance hydrogen infrastructure relevant to the DOE H2@Scale Initiative, a concept to explore wide-scale hydrogen production and utilization in the U.S. These actions are to execute one or more contracts with Frontier Energy, Inc., acting on behalf of the CaFCP, in an amount not to exceed \$245,000 from the Clean Fuels Program Fund (31) to renew SCAQMD's CaFCP membership for 2018, cofund 50 percent of the CaFCP Regional Coordinator position, and provide support for fuel cell truck and bus codes and standards coordination as well as to receive and file the last CaFCP Board Meeting Agenda and recent Quarterly Updates. This action is to also execute an agreement with the National Renewable Energy Laboratory for \$100,000 from the Clean Fuels Program Fund (31) to participate in the California Hydrogen Infrastructure Research Consortium.

COMMITTEE: Technology, January 19, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute one or more contracts in an amount not to exceed \$245,000 from the Clean Fuels Fund (31) with Frontier Energy, Inc., acting on behalf of the CaFCP, to:
 - a. Continue SCAQMD's membership for Calendar Year 2018 for a total amount not to exceed \$70,000 for common expenses of the CaFCP;
 - b. Continue support for a Regional Coordinator located at SCAQMD for a total amount not to exceed \$50,000; and

- c. Provide support for fuel cell truck and bus codes and standards coordination for a total amount not to exceed \$125,000.
2. Receive and file the attached Executive Board Agenda and Quarterly Updates.
3. Authorize the Executive Officer to execute a joint agreement for an amount not to exceed \$100,000 from the Clean Fuels Fund (31) with NREL, acting on behalf of the California Hydrogen Infrastructure Research Consortium.

Wayne Nastri
Executive Officer

MMM:FM:NB:LHM

Background

California Fuel Cell Partnership

The California Fuel Cell Partnership (CaFCP) was initiated in 1999 as a means to accelerate response to CARB's ZEV regulations. In January 2012, CARB approved Advanced Clean Car regulations, which harmonize California requirements with federal requirements from 2017–2025 and incorporate GHG emission reductions. The AQMP and the Technology Advancement Office Clean Fuels Program 2016 Plan Update have identified fuel cells for on- and off-road applications as a core technology for attaining and maintaining cleaner air quality. Because of the alignment of the SCAQMD and CaFCP goals for accelerated fuel cell vehicle commercialization, the SCAQMD Board accepted the CaFCP's formal invitation to join as a full member in March 2000.

Initially, the CaFCP Program focused on development of vehicle, infrastructure and outreach plans for future projects. The CaFCP was involved in the demonstration of cars and buses using gaseous and liquid hydrogen as well as methanol through 2003. A limited number of fleet customer placements began in 2002. The CaFCP and members demonstrated several generations of fuel cell cars and buses using gaseous hydrogen fuel at 350 bar and 700 bar pressures. Several automakers started retail placement of fuel cell vehicles near hydrogen stations in early market communities. The CaFCP with member support developed a "Roadmap" for the introduction of fuel cell passenger vehicles with sufficient hydrogen fueling stations in California, a "Bus Roadmap" and, most recently, a Medium & Heavy-Duty Fuel Cell Electric Vehicle Action Plan.

With the commitment of funding under AB 8 (2013) to develop and operate approximately 100 hydrogen retail fueling stations in California through 2023, and the collaboration of California with other states to support ZEVs, automakers are continuing to announce market launches. Some automakers are combining efforts to share intellectual property, build component supply chains and leverage resources - Daimler with Ford and Nissan, Toyota with BMW, and General Motors with Honda. Germany, Japan and South Korea have also committed funding to build more hydrogen stations,

and international momentum is building with the 2017 establishment of the Hydrogen Council.

At the request of SCAQMD, the CaFCP has expanded its presence in Southern California due to the increased deployment of vehicles, the largest number of fueling stations and the greatest air quality need in this region. A CaFCP Regional Coordinator based in our region supports member activities and outreach and an Infrastructure Specialist facilitates hydrogen station development.

Major accomplishments during Calendar Year (CY) 2017 include:

- Continued retail production and deployment of fuel cell cars and buses in California. As of November 1, 2017, there have been 2,985 cumulative total fuel cell electric vehicle (FCEV) sales and leases by Hyundai, Toyota and Honda in California¹, 31 retail hydrogen stations are open, and there are 20 fuel cell buses in operation.
- Engaged members in a strategic planning process to develop a Vision for 2030.
- Increased the presence of the CaFCP in Southern California through coordination of ombudsman activities in early market communities with Regional Coordinator & Infrastructure Specialist based at SCAQMD.

The CaFCP has introduced new membership levels to increase membership and reduce the cost of membership. Each CaFCP Executive Member has a representative on the Executive Board. Current Executive Members include:

- Seven auto manufacturers (General Motors, Toyota, Daimler, Honda, Hyundai, Nissan and Volkswagen);
- Four industry stakeholders (AFCC, EIN, Air Liquide and Shell); and
- Three government agencies (SCAQMD, CARB and CEC), and the Governor's Office of Economic Development (GO-Biz).

There are currently an additional 29 Full and Associate Members, with commensurate benefits and voting rights. DOE and U.S. EPA have been invited to participate as Full Members (albeit in a non-paying advisory capacity) for 2018. Additionally, hydrogen infrastructure membership increased, a goal set by Dr. Clark E. Parker when he was the CaFCP chair in 2017.

The CaFCP retains Frontier Energy, Inc., (previously Bevilacqua-Knight, Inc.) to provide the needed support for the common tasks agreed to by the CaFCP, and each member contracts directly with Frontier Energy acting on behalf of the CaFCP. In an effort to better align the beneficiaries of Frontier Energy's West Sacramento operations with the costs of those operations, Frontier Energy will transition to a costing model in accordance with federal cost principles to charge CaFCP on a cost reimbursement basis, which is cost neutral for 2017 but is easier to scale.

¹Number of cumulative total FCEV sales data from HybridCars.com and Carsalesdatabase.com

California Hydrogen Infrastructure Research Consortium

Many stakeholders are working on hydrogen and fuel cell products, markets, requirements, mandates, and policies. California has been leading the way for hydrogen infrastructure and fuel cell electric vehicle deployment. This leadership has advanced a hydrogen network that is not duplicated anywhere in the U.S. and is unique in the world for its focus on providing a retail fueling experience. In addition, the advancements have identified many lessons learned for hydrogen infrastructure development, deployment and operation. Other interested states and countries are using California's experience as a model case, making success in California paramount to enabling market acceleration and uptake in the U.S. 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 California Hydrogen Infrastructure Research Consortium aims to:

- Ensure that data are available to evaluate projects and inform decision makers;
- Independently verify and validate component solutions;
- Provide experimental results for future hydrogen infrastructure; and
- Increase the availability of technical experts for quick-need issues for California hydrogen infrastructure development, deployment, operation and technology advances.

Proposal

California Fuel Cell Partnership

The CaFCP completed the fourth phase of its "Preparing for Market Launch" effort through 2016 and is continuing the transition to an ongoing commercial vision. The fee of \$70,000 per Executive Member supports the activities planned for 2018, with additional membership levels designed to encourage participation with commensurate benefits. A new non-paying, advisory role is proposed to continue engagement with staff in federal agencies. The proposed budget for 2018 is reduced to \$1,011,464, with plans to encourage new membership and growth. The 2017 Vice-Chair, Dr. Christian Mohrdieck (Daimler), serves as 2018 Chair, with O. Hoefelmann (Air Liquide) serving as Vice-Chair. Dr. Clark E. Parker will serve as SCAQMD's representative, along with 13 other Executive Members. The majority of fuel cell vehicle deployment growth is anticipated to be within the South Coast Air Basin over the next couple of years, enhanced by the development of hydrogen stations in more early markets in California and beginning in several northeast states.

The proposed CaFCP activities for 2018 are to:

- Develop the necessary infrastructure and processes to support early commercial launch and expanded vehicle rollout focused in California, plus communication with new station and vehicle deployments planned in the northeastern U.S.
- Share and synchronize experience by providing forums and opportunities for members to advance group collaboration and progress within CaFCP and among stakeholders, including national coordination.
- Reach target markets and communities to educate, inform and promote hydrogen and FCEVs and accelerate commercial adoption.
- Implement CaFCP restructuring to be more inclusive and capable of meeting the expanding commercial market needs and opportunities, broaden the member base, and collaborate with stakeholder participants.

With additional support from some CaFCP members to facilitate the foundational work required for the growth of medium- and heavy-duty fuel cell truck and bus deployments, these additional tasks are proposed:

- Sponsor SAE J2600, Compressed Hydrogen Surface Vehicle Fueling Connection Devices, revision to include high flow interface geometries and align with ISO 17268
- Sponsor SAE J2601-2, Fueling Protocol for Gaseous Hydrogen Powered Heavy Duty Vehicles, from Technical Information Report (TIR 2014) to Surface Vehicle Standard & align with J2600 & ISO
- General medium-duty/heavy-duty vehicle and infrastructure safety, codes and standards, and update first responder training
- Facilitate task forces (truck and bus) and outreach; coordinate 2018 Fuel Cell Electric Truck (FCET) Action Plan

This action is to execute contract(s) with Frontier Energy to renew SCAQMD's membership in the CaFCP for CY 2018, continue to cofund the CaFCP Regional Coordinator position based in SCAQMD and reporting to the CaFCP Executive Director, and to provide directed support for medium- and heavy-duty fuel cell truck and bus fueling codes and standards coordination. There is no longer a need for in-kind office space and utilities for Frontier Energy employees in CY 2018, since staff assigned to CaFCP activities primarily work in the field visiting legislative offices, member locations and hydrogen stations. This action is also to receive and file the CaFCP Executive Board Meeting Agenda for October 2017 and Quarterly Updates for April-June and July-September 2017.

California Hydrogen Infrastructure Research Consortium

This action is to execute a joint agreement with NREL to participate in the California Hydrogen Infrastructure Research Consortium. The California Hydrogen Infrastructure Research Consortium proposal identifies tasks based on top research needs and

priorities to address near-term problems in order to support California's continued leadership in innovative hydrogen technology solutions. These tasks also provide significant contributions to the DOE H2@Scale Initiative, although the Consortium proposal may not be fully funded from the current solicitation. For instance, advances in fueling methods and components can support the development of supply chains and deployments. The proposed 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.

Sole Source Justification

Section VIII.B.2. of the Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.d.: Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interest of SCAQMD.

Specifically, these circumstances are B.2.d.(1): Projects involving cost-sharing by multiple sponsors. The major sponsors contributing financially to the CaFCP include seven automakers, four industry stakeholders and three government agencies (including SCAQMD). The major sponsors currently contributing financially to the California Hydrogen Infrastructure Research Consortium include U.S. DOE, CARB and CEC.

Benefits to SCAQMD

Membership in the CaFCP is consistent with the *Technology Advancement Office Clean Fuels 2017 Plan Update* under "Hydrogen and Mobile Fuel Cell Technologies & Infrastructure" and "Assessment and Technical Support of Advanced Technologies and Information Dissemination." SCAQMD supports the development, demonstration and commercialization of zero and near-zero emission vehicles and strives to educate public and private organizations regarding the benefits and characteristics of these vehicles.

Resource Impacts

California Fuel Cell Partnership

SCAQMD's support of the CaFCP for CY 2018, provided through a contract(s) with Frontier Energy, Inc., will not exceed \$245,000 from the Clean Fuels Program Fund (31), comprised of up to \$70,000 for common project costs to cover administrative, technical and program management costs, half the cost of up to \$50,000 for the Regional Coordinator position based in SCAQMD, and directed support not to exceed \$125,000 to coordinate the development of fueling codes and standards for medium- and heavy-duty fuel cell trucks and buses.

California Hydrogen Infrastructure Research Consortium

SCAQMD's support of the California Hydrogen Infrastructure Research Consortium, provided through a joint agreement with NREL, will not exceed \$100,000 from the Clean Fuels Program Fund (31). Project partners and proposed funding are as follows:

Project Partner	Funding	(In-kind)
U.S. DOE, Fuel Cell Technologies Office	*\$700,000	
CARB	\$100,000	
CEC	\$80,000 (**\$100,000)	
SCAQMD (<i>requested</i>)	\$100,000	
California Governor's Office of Economic Development (GO-Biz)		Coordination & labor
Total (not to exceed)	\$1,000,000	

* Subject to partial award; U.S. DOE funding may be scaled.

**The contribution from CEC will increase to \$100k if the Hydrogen Safety Panel Evaluation of Hydrogen Facilities CRADA (CEC with PNNL) is not funded.

Sufficient funds are available from the Clean Fuels Fund, established as a special revenue fund resulting from the state-mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.

Attachments

California Fuel Cell Partnership October 17, 2017 Executive Board Meeting Agenda

California Fuel Cell Partnership Quarterly Update (April-June 2017)

California Fuel Cell Partnership Quarterly Update (July-September 2017)

October 17 Public Forum Agenda

Vision 2030 – Accelerating Commercialization in California

California Energy Commission—Arthur H. Rosenfeld Boardroom
1516 9th Street, Sacramento, CA 95814

30 minutes

8:45am–9:15am

C Parker, CaFCP Chair

B Elrick, CaFCP Exec Director

1. Welcome and opening remarks

CaFCP is crafting a consensus vision for market acceleration of FCEVs and hydrogen stations, deployment of fuel cell electric buses, and introduction of fuel cell electric trucks. Today's meeting will help guide the direction of the CaFCP Vision 2030 roadmap.

30 minutes

9:15am–9:45am

B Heid, McKinsey

B Fourie, Air Liquide

H Butsch, NOW

2. Global Perspectives and Activities

The Hydrogen Council brings a new group and perspective into the energy transition, and station deployment in Germany is continuing to match the pace. What ideas for funding, hydrogen production, stakeholder engagement, and energy policy should we consider in our Vision 2030 roadmap?

30 minutes

9:45am–10:15am

Break

90 minutes

10:15am–11:45pm

D Sperling, UC Davis

J Duffy, ARB

CaFCP members

3. Policy Approaches to California's Hydrogen Future

California policy and technology efforts guide the development and speed of our energy transition, including Low Carbon Fuel Standard and grid integration. Speakers will talk about policies in which hydrogen can play a role and present concepts for CaFCP Executive Board input and discussion.

75 minutes

11:45am–1:00pm

Lunch (on own)

90 minutes

1:00pm–2:30pm

A Galiteva, CalISO

R Gonzalez, CEC EPIC

CaFCP members

4. Hydrogen and the Grid

Our Vision 2030 considers integrating hydrogen with the grid for demand management, energy storage, and microgrids. Speakers will provide perspectives from the electricity sector and engage in a discussion about timelines, renewables, and R&D funding focus areas.

30 minutes

2:30pm–3:00pm

Break

30 minutes

3:00pm–3:30pm
CaFCP members

5. A Look at Upcoming Vehicles

Reports from automakers, heavy-duty vehicle manufacturers, and transit agencies about upcoming vehicle deployment plans in California and around the world.

60 minutes

3:30pm-4:30pm
B Elrick, Executive Director

6. CaFCP Executive Board Business Meeting

- April meeting decisions and assignments
 - 2018 meeting dates
 - 2018 Chair and Vice Chair
 - New member proposals
 - 2018 Program Plan and Budget
 - Public comment period
-
-

15 minutes

4:30pm-4:45pm
C Parker, CaFCP Chair

7. Closing remarks

* **Public comment period** : The public comment period provides an opportunity for members of the public to address the CaFCP Executive Board on subjects related to the mission and activities of CaFCP. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

Agenda items may be taken out of order and times may vary from those listed in the agenda. The board may choose to limit public comment at the chair's discretion.

This meeting is open to the public and will not be available by phone. This facility is accessible to persons with disabilities. Deadline for requesting ADA modification is **October 13, 2017**. Meeting materials will be posted at www.cahcp.org.

CaFCP Quarterly Update

April –June 2017

Background

The California Fuel Cell Partnership is a unique collaborative of auto manufacturers, energy companies, fuel cell technology companies and government agencies, including SCAQMD.

CaFCP members, individually or in groups, will focus on meeting these goals to achieve market launch:

- Prepare for larger-scale manufacturing, which encompasses cost reduction, supply chain and production.
- Work on the customer channel, including identifying and training dealers and service technicians.
- Reduce costs of station equipment, increase supply of renewable hydrogen at lower cost, and develop new retail station approaches.
- Support cost reduction through incentives and targeted RD&D projects
- Continue research, development and demonstration of advanced concepts in renewable and other low-carbon hydrogen.
- Provide education and outreach to the public and community stakeholders on the role of FCVs and hydrogen in the evolution to electric drive.

CaFCP and members' activities fall within three main strategic directions:

1. Support hydrogen station and vehicle deployment to enable commercial market launch
2. Show feasibility and a clear value proposition to consumers, businesses and communities
3. Focus existing resources, engage new groups and pursue innovative concepts to overcome early market challenges

To successfully implement the vision, CaFCP activities must focus on technical, communications and business operations/strategies that require convening, collaborating and communicating.

2017 Program Plan
Q2 accomplishments



1. Develop Infrastructure	
<i>Develop the necessary infrastructure and processes to support early commercial launch and expanded vehicle rollout.</i>	
Support the construction and commissioning of current California hydrogen stations by participating in codes, standards and regulation processes; facilitating station commissioning processes; and supporting station openings.	<ul style="list-style-type: none"> Working with members to progress two Inter-Laboratory Studies (for FTIR and CDRS) in ASTM D03.14 Active participation with SAE International and CSA Group to harmonize CSA HGV 4.3 and SAE J2601; also for SAE J2601/4 Delivered a webinar for AHJs with the City of SF and GOBiz
Prepare for future funding through outreach and education with fueling retailers, the investment community and hydrogen industry.	<ul style="list-style-type: none"> Coordinated meetings with Orange County fuel retailers and Sustain OC to begin development of a sustainable H2 station business model. Held meetings with potential investors to educate them on the progress of the H2 FCEV commercial market. Attended the Fuels Institute annual conference in May and established connections with fuel retailers and national chain store fueling operation executives.
Work with stakeholders to identify potential future station locations.	<ul style="list-style-type: none"> Coordinated OEM Group effort to develop the next set of recommended priority market locations for hydrogen station deployment in California for government planning and funding.
Develop Road Map 2.0 with strategies for a sustainable network in California.	<ul style="list-style-type: none"> We've completed two out of three visioning workshops and the final is scheduled for early July. Draft report expected by the end of summer.
2. Share and Synchronize Experience	
<i>Provide forums and opportunities for members to advance group collaboration and progress within CaFCP and among stakeholders.</i>	
Build and expand trust among members through open communication and forums.	<ul style="list-style-type: none"> Held the April Executive Board meeting at UCLA Held the June 21-22 Working Group meeting in West Sacramento Coordinated series of meetings between OEM Group, SDO Group and state and local government officials to provide industry input for the June 2017 AB 8 Report and to discuss possible different approaches to state funding of H2 stations.
Communicate with stakeholders nationally	<ul style="list-style-type: none"> Hosted visitors from <u>Mitsui & Co.</u>, Japan

and internationally to share learnings and amplify market launch efforts.	<ul style="list-style-type: none"> • Represented California at the Hydrogen Fuel Cell conference in Vancouver, BC, hosted by the Canadian Hydrogen and Fuel Cell Association • Started conversations with a new consortium in New Zealand that aims to replace diesel motor coaches with fuel cell buses • Participated in DOE's Annual Merit Review as peer reviewers of 12 DOE funded projects and H2USA member meeting in June. • Provided a California Update at DOE's Hydrogen Technology Advisory Committee
4. Expand Markets	
<i>Restructure CaFCP to be more inclusive and capable of meeting the expanding commercial market needs and opportunities, broadening the member base, and being the voice of all stakeholder participants</i>	
Establish new structure and expand membership.	<ul style="list-style-type: none"> • x
Support deployment of fuel cell bus Centers of Excellence and the Bus Team.	<ul style="list-style-type: none"> • Represented CaFCP at APTA Bus and Paratransit Conference in Reno with booth on expo floor to inform attendees about FCEBs and support AC Transit's FCEB outreach (May 9). • Represented CaFCP FCEB and H2 infrastructure perspective at CARB's 5th Innovative Clean Transit Workgroup meeting (June 26). • Planned and organized the July 14 CaFCP Bus Team meeting at OCTA headquarters in Orange. • Began planning for annual factory tours of fuel cell electric buses at Eldorado National on August 1.
Publish and implement the Medium- and Heavy-Duty Road Map document.	<ul style="list-style-type: none"> • Attended Green Transportation Summit & Expo in Portland, OR, where H2 and FCET technology was frequently referenced due to range and weight limitations of battery technology in truck applications (April 10-12). • Represented CaFCP at Toyota Portal Truck announcement event in Port of Long Beach/San Pedro (April 19). • Served as moderator for the CHBC Fuel Cell Truck Workshop and presented FCET Action Plan highlights (May 1). • Attended ACT Expo in Long Beach to discuss FCET feasibility with truck operators, OEMs, and component suppliers (May 2-4). • Facilitated a truck stakeholder group of over 20 industry and government representatives to revise the recommendations in the Medium and Heavy Duty Fuel Cell Electric Truck Action Plan on May 5. • Represent CaFCP at CARB Public Work Group Meeting #3 for Heavy-Duty Three-Year Plan for inclusion of FCET and FCEB considerations (May 18).

	<ul style="list-style-type: none">• Represented CaFCP member FCET interests at STEPS Truck Choice Workshop at UC Davis ITS (May 22).
Support activities outside of California, as directed by members	<ul style="list-style-type: none">• Organizing ER outreach in the Northeast (Toyota and Air Liquide)• Meetings with selected stakeholders in the Seattle, WA area.




3. Reach Target Audiences

Communicate, educate, inform and promote H2 & FCEVs benefits and opportunities to key outside stakeholders and general public for increased and continued support. Become readily recognized as the face of the industry for trustworthy information and assist.

Activity	Description	Picture
CEC Board Meeting, April 12, Sacramento	CaFCP staff and Honda, Toyota Test Drive	 <p>Copyright California Fuel Cell Partnership</p>
CARB – Earth Day 2017 April 19, Sacramento	CaFCP Exhibit display	 <p>Copyright California Fuel Cell Partnership</p>
Sacramento Alt Car Expo, April 19, State Capitol	CaFCP Exhibit display	No photo available

First Element, GOBiz, CEC and CaFCP Bay Area Rally, April 20, San Francisco Bay Area	Road Rally with Toyota, Honda and CaFCP members	
Santa Barbara Earth Day Event, April 21-23, Santa Barbara	Exhibit display	
Carthay Science Fair & Environmental Expo, April 28, Los Angeles	CaFCP & Hyundai display	

2017 APTA Paratransit and Expo, May 8, Reno NV	Exhibit display with Ballard, CTE and CHBC	
CAPCOA Conference, May 22, Squaw Valley	Static and outreach display with Honda	No photo available
Green Connections Forum, May 24, La Jolla	Keith - speaker	No photo available
Diesel Student Awards Lunch and Employer Meet & Greet, LA Trade-Tech College, June 1	Keith	

<p>Presidio Trust Event, June 19, San Francisco</p>	<p>CaFCP staff, Air Liquide, Honda – presentation and test drives</p>	
<p>Advanced Automotive Battery Conference, June 20-21, San Francisco</p>	<p>Bill Elrick – Presenter, Honda, Toyota and Hyundai test drive</p>	
<p>Sustain OC Driving Mobility 4 Advanced Transportation Symposium, June 27, Irvine</p>	<p>H2 FCEV panel with Honda, Toyota & First Element Fuel. (~100 attendees)</p>	

Legislative, NGO & Policy

Conduct one-on-one meetings with California state and federal elected officials and their staff in district and capitol offices. Conduct one-on-one meetings with influential NGOs at the local, state and national levels. Emphasize California's commitment to hydrogen and provide information about progress and plans. Provide education and information to policy makers.

2017 Q2 Statistics – Meetings and encounters

Elected officials: 8

Legislative staff: 11

NGOs: 3

Event name	Meeting Date	Meeting with <i>(Names and titles of all persons)</i>
District meeting	4/3/2017	Stephen Hill, district director for Assembly Member Todd Gloria (D-San Diego)
District meeting	4/3/2017	Michael Hadland, chief of staff and Tom Garcia, field representative to Assembly Member Rocky Chavez (R-Oceanside)
District meeting	4/3/2017	Lee Hernandez, senior field representative and another staff member to Assembly Member Shirley Weber (D-San Diego)
District meeting	4/3/2017	Sunana Batra, district director for Congressman Darrell Issa (R-Vista)
District meeting	4/3/2017	Raquel Maden, field representative to State Senator Ben Hueso (D-Chula Vista)
District meeting	4/3/2017	David Santillan, office of Assembly Member Sabrina Cervantes (D-Corona) and Carmen Cuevas, office of Assembly Member Medina (D-Riverside)
District meeting	4/11/2017	Lunch with Vickere Murphy, field representative to State Senator Anthony Portantino (D-Glendale)
Interaction		Had a conversation with Sacramento Mayor Darrell Steinberg at the airport.

Bay Area Tour of H2 stations	4/20/2017	State Senator Henry Stern (D-Woodland Hills), Assembly Member Bill Quirk (D-Hayward), Hayward Mayor Barbara Halliday, Hayward Council Member Barbara Lamnin, Campbell Mayor Susan Landry, San Leandro Council Member Deborah Cox (and aide to Asm. Quirk)
District meeting	6/2/2017	Congressman Darrell Issa and district director Sunanana Batra

Website and Social Media

We provide outreach and education through events, materials, video, web and social media that increase awareness in the general public, build support in early market communities and support other projects' specific goals. Our online strategy is to deliver real-world information about FCEVs and hydrogen stations to early adopter audiences. We use email, blogs, Twitter, YouTube and Facebook to share messages about FCEV commercialization and technology with different audience types.

www.cafcp.org	Apr-17	May-17	Jun-17
Number of visits	19,982	19,733	14,453
Average time users spent on site	1:51	1:54	2:01
Most visited pages	Station map Home page Stations Cars Buses & Trucks	Station map Home page Stations Cars Buses & Trucks	Station map Home page Stations Buses & Trucks Cars
Most searched keywords on Google to land on CaFCP website	truck hydrogen fueling stations trucks hydrogene gas station cafcp	truck cafcp hydrogen fueling stations trucks california fuel cell partnership	truck california fuel cell partnership hydrogen fueling stations soss cafcp sherman oaks hydrogen
Most referred websites	google.com automobiles.honda.com bing yahoo afdc.energy.gov	google.com bing.com yahoo automobiles.honda.com afdc.energy.gov	google.com bing.com automobiles.honda.com yahoo facebook.com

FACEBOOK	Apr-17	May-17	Jun-17
New likes	22	21	21
Lifetime likes	2,900	2,912	2,925
Lifetime Post Total Reach	10,711	19,246	12,634
Lifetime Engaged Users	285	670	465

TWITTER	Apr-17	May-17	Jun-17
Tweets for the month	48	74	60
Tweet Impressions	26,100	45,400	49,400
Profile visits	1,150	960	1,344
Mentions	352	197	216
New Followers	82	3,616	75
Total Followers	3,299	3,616	3,696

E-blast – Bay Area Hydrogen Tour, April 20	
Sent April 12, 2017	
Contacts:	565
Opened:	36.5% - 206 contacts
Bounced:	3.4% - 19 contacts
No Info:	60.2% - 340 contacts
Clicked:	1% - 4 contacts
Unsubscribed:	2

E-blast – Air Liquide Joins CaFCP Executive Board	
Sent May 2, 2017	
Contacts:	11,134
Opened:	12.5% - 1,390 contacts
Bounced:	3.2% - 351 contacts
No Info:	84.4% - 9,393 contacts
Clicked:	1% - 102 contacts
Unsubscribed:	16

E-blast – 2017 Annual Merit Review and Evaluation, June 5	
Sent May 24, 2017	
Contacts:	11,055 – 11 Tweets
Opened:	16.2% - 1,791 contacts
Bounced:	3.0% - 335 contacts
No Info:	80.8% - 8,929 contacts

E-blast – 2017 Annual Merit Review and Evaluation, June 5	
Sent May 24, 2017	
Contacts:	11,055 – 11 Tweets
Opened:	16.2% - 1,791 contacts
Bounced:	3.0% - 335 contacts
No Info:	80.8% - 8,929 contacts
Clicked:	1% - 90 contacts
Unsubscribed:	27

E-blast – Members Only: CaFCP 101, June 13	
Sent June 7, 2017	
Contacts:	194
Opened:	39.7% - 77 contacts
Bounced:	1.0% - 2 contacts
No Info:	59.3% - 115 contacts
Clicked:	3% - 5 contacts
Unsubscribed:	1

E-blast – Fuel Cell Electric Vehicle Test Drive and Briefing, June 19	
Sent June 15, 2017	
Contacts:	57
Opened:	29.8% - 17 contacts
Bounced:	5.3% - 3 contacts
No Info:	64.9% - 37 contacts
Clicked:	4% - 2 contacts
Unsubscribed:	0

E-blast – Webinar for Code Officials on Hydrogen & Fuel Cells, July 19	
Sent June 19, 2017	
Contacts:	294
Opened:	11.2% - 33 contacts
Bounced:	12.6% - 37 contacts
No Info:	76.2% - 224 contacts
Clicked:	2% - 6 contacts
Unsubscribed:	0

E-blast – Tours of Fuel Cell Electric Bus Manufacturing, August 1	
Sent June 22, 2017	
Contacts:	428
Opened:	36.7% - 157 contacts
Bounced:	3.5% - 15 contacts
No Info:	59.8% - 256 contacts
Clicked:	2% - 10 contacts
Unsubscribed:	1

E-blast – Lawndale Station Open	
Sent June 23, 2017	
Contacts:	11,045
Opened:	15.5% - 1,713 contacts
Bounced:	3.0% - 329 contacts
No Info:	81.5% - 9,003 contacts
Clicked:	2% - 188 contacts
Unsubscribed:	12

CaFCP Quarterly Update

July –September 2017

Background

The California Fuel Cell Partnership is a unique collaborative of auto manufacturers, energy companies, fuel cell technology companies and government agencies, including SCAQMD.

In its fourth phase, 2013-2016, and continuing in 2017, CaFCP members, individually or in groups, will focus on meeting these goals to achieve market launch:

- Prepare for larger-scale manufacturing, which encompasses cost reduction, supply chain and production.
- Work on the customer channel, including identifying and training dealers and service technicians.
- Reduce costs of station equipment, increase supply of renewable hydrogen at lower cost, and develop new retail station approaches.
- Support cost reduction through incentives and targeted RD&D projects
- Continue research, development and demonstration of advanced concepts in renewable and other low-carbon hydrogen.
- Provide education and outreach to the public and community stakeholders on the role of FCVs and hydrogen in the evolution to electric drive.

CaFCP and members' activities fall within three main strategic directions:

1. Support hydrogen station and vehicle deployment to enable commercial market launch in 2015 timeframe
2. Show feasibility and a clear value proposition to consumers, businesses and communities
3. Focus existing resources, engage new groups and pursue innovative concepts to overcome early market challenges

To successfully implement the vision, CaFCP activities must focus on technical, communications and business operations/strategies that require convening, collaborating and communicating.

2017 Program Plan
Q3 accomplishments



1. Develop Infrastructure	
<i>Develop the necessary infrastructure and processes to support early commercial launch and expanded vehicle rollout.</i>	
Support the construction and commissioning of current California hydrogen stations by participating in codes, standards and regulation processes; facilitating station commissioning processes; and supporting station openings.	<ul style="list-style-type: none"> • CaFCP staff sponsoring/chairing SAE J2600 fueling interface standard to be revised. • Coordinated industry stakeholder feedback on the 2017 ARB AB 8 report • Coordinated OEM and SDO discussions and development of updated consensus HRS technical requirements for the next CEC GFO • Conducted ER training/outreach for Port of LA/LB in support of Toyota Class 8 FC Drayage truck • Participated in the US TAG response on ISO documents (19882- Gaseous hydrogen — Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers, and ISO/DIS 19880-2, Gaseous hydrogen — Fueling stations — Part 2: Dispensers)
Prepare for future funding through outreach and education with fueling retailers and hydrogen industry.	<ul style="list-style-type: none"> • Coordinated fuel retailer participation in the September Working Group meeting co-located at the Pacific Oil Conference in Los Angeles to discuss hydrogen fuel integration challenges • Worked with fuel retailers in Orange County to develop a sustainable hydrogen station business model
Work with stakeholders to identify potential future station locations.	<ul style="list-style-type: none"> • Coordinated OEM Group development of its 2017 list of 45 priority hydrogen station location recommendations
Develop Road Map 2.0 with strategies for a sustainable network in California.	<ul style="list-style-type: none"> •
2. Share and Synchronize Experience	
<i>Provide forums and opportunities for members to advance group collaboration and progress within CaFCP and among stakeholders.</i>	
Build and expand trust among members through open communication and forums.	<ul style="list-style-type: none"> • Organized and facilitated Sept 6-7 in-person Working Group meeting in conjunction with Pacific Oil Conference in LA and at Honda, Torrance. • Coordinated the August OEM-SDO-government meeting to review and discuss the OEM 2017 list of 45 priority hydrogen station location recommendations

	<ul style="list-style-type: none"> Facilitated on-going SDO and OEM Group meetings to address hydrogen commercialization and station development challenges
Communicate with stakeholders nationally and internationally to share learnings and amplify market launch efforts.	<ul style="list-style-type: none"> Presented the July CAFCP hydrogen station network update webinar to an international audience
4. Expand Markets	
<i>Restructure CaFCP to be more inclusive and capable of meeting the expanding commercial market needs and opportunities, broadening the member base, and being the voice of all stakeholder participants</i>	
Establish new structure and expand membership.	<ul style="list-style-type: none">
Support deployment of fuel cell bus Centers of Excellence and the Bus Team.	<ul style="list-style-type: none"> Conducted tours of the ElDorado National factory in Riverside for elected officials, transit agencies, policy makers and NGOs. Organized and facilitated CaFCP Bus Team meeting at OCTA in Orange on July 14 to exchange lessons learned and discuss FCEB challenges, including missing information about FCEB H2 fueling infrastructure cost. CHBC Fuel Cell Bus Workshop, Sacramento Sept 27 - CaFCP staff provided input for agenda, participated and presented as a panelist in the session “Developing an Action Plan for FCEBs” about lessons learned.
Support activities outside of California, as directed by members	<ul style="list-style-type: none"> Conducted ER training/outreach for Boston and New York Fire Departments in conjunction with Toyota.

3. Reach Target Audiences

Communicate, educate, inform and promote H2 & FCEVs benefits and opportunities to key outside stakeholders and general public for increased and continued support. Become readily recognized as the face of the industry for trustworthy information and assist.

Activity	Description	Picture
EES Inter Solar/SEMICON WEST, San Francisco, CA. July 11-13	Exhibit display with Honda and Air Liquide Attendees: 150 Keith, Juan Presenter: Keith Attendees: 20	
Code Webinar for Cities and Authorities Having Jurisdiction, July 19	Registered: 50 Attended: 29, Keith, Jennifer	
Allied Clean Fuels Plaza Networking Event with NEL and B&B Consulting, Napa, CA. July 21	Display: Toyota Mirai and member support Attendee: 75 guests Juan	No photo available.
Leataata Floyd Elementary School, Sacramento, CA. July 25	Display: Toyota Mirai Students: 40 Juan	No photo available.

ReFire Chinese Delegation, CaFCP HQ, July 26	Meeting: Bill Elrick Stakeholders: 10 Bill	No photo delegation.
ElDorado National factory tours of Fuel Cell Electric Buses under assembly, Riverside, CA, Aug. 1	Tour Stakeholders: 30 Nico and Keith	
Norwegian Ministry of the Environment/Vidar Helgesen, CaFCP HQ, Aug. 2	Presentation, and Linde Station tour Display: Toyota Mirai Stakeholders: 11 Bill and Juan	No photo available
Green Energy Visitors, CaFCP HQ, Aug. 28	Meeting 6 attendees Bill	No photo available.
Pacific Oil Conference, Los Angeles, Sept. 5-7	Exhibit: Air Liquide Attendees: 30 Juan	

National EV Week hosted by Sierra Club, Richmond, CA, Sept. 9	Test drive: Honda Clarity and Toyota Mirai Attendees: 25 Juan	
Hydrogen + Fuel Cells NORTH AMERICA, Las Vegas, Sept. 10-12	Test Drive: Honda Clarity, Hyundai Tucson and Toyota Mirai Exhibit Speaker/Presenter: Bill Elrick, Air Liquide, Toyota, Hydrogenics Test Drives: 98 Attendees: 125 Bill, Keith, Ben and Juan	 

**League of California Cities
Conference and Expo,
Sacramento, Sept. 13-14**



**Exhibitor:
Toyota Mirai
and Air
Liquide
Attendees: 75
Keith, Juan**



**Hydrogen and Fuel Cell
Investment Forum, New
York, NY. Sept. 18**

**Presenter: Bill
Elrick
Attendees:
over 150**



VERGE Green, Santa Clara, Sept. 19-21	Test Drive: Toyota Mirai Test drives: 50 Exhibitor: Toyota Attendees: 100 Keith, Juan	 A photograph showing two men in a trade show environment. One man, wearing a dark suit, is seen from the back, facing another man in a brown polo shirt who is gesturing with his hands. In the background, a booth with the word 'VERGE' is visible.
California Hydrogen and Fuel Cell Summit, Sacramento, CA. Sept. 25-27	Presenter: Nico Attendees: 50	No photo available.
Tri-Valley Cities, San Ramon, Sept. 26	Presenter: Keith Attendees: 30	 A group of seven men in business attire standing behind a white Toyota Mirai. The car is parked on a paved area in front of a modern building with large glass windows.
Cyclocross, West Sacramento, Sept. 30	Sponsor, Toyota Mirai Attendance: over 1000 Chris	No photo available.

Legislative, NGO & Policy

Conduct one-on-one meetings with California state and federal elected officials and their staff in district and capitol offices. Conduct one-on-one meetings with influential NGOs at the local, state and national levels. Emphasize California's commitment to hydrogen and provide information about progress and plans. Provide education and information to policy makers.

2017 Q3 Statistics – Meetings and encountersElected officials: **14**Legislative staff: **31**NGOs: **3**

Event name	Meeting Date	Meeting with <i>(Names and titles of all persons)</i>
Bus tours at ElDorado National	8/1/2017	Assembly Member Sabrina Cervantes and aide David Santillan; State Senator Tony Mendoza and aide Yahaira Ortiz; Assembly Member Jose Medina and aide Jorell Verella, Coalition for Clean Air
Community block party	8/5/2017	Assembly Member Holden (D-Pasadena), Victor Munoz, legislative aide
District meeting	8/8/2017	State Senator Ben Allen (D-Redondo Beach), Field Representative Allison Towles
District meeting	8/10/2017	Victor Munoz, legislative aide (transportation) to Assembly Member Chris Holden (D-Pasadena)
District meeting	8/11/2017	State Senator John Moorlach (R-Costa Mesa), district director and another staff member.
District Meeting	8/15/2017	State Senator Pat Bates (D-Laguna Hills) and staff member
District meeting	8/24/2017	District office staff of Assembly Member Bocanegra (D-San Fernando)
District Meeting	8/25/2017	State Senator Anthony Portantino (D-Glendale) and Vickere Murphy, district representative
District Meeting	9/22/2017	Clayton Heard, field representative to Congressman Alan Lowenthal (D-Long Beach)
District Meeting	9/25/2017	Assembly Member Catherine Baker (R-San Ramon) and aide.

District Meeting	9/25/2017	Mallory DeLauro , office of Congressman Eric Swalwell (D-Castro Valley)
District Meeting	9/25/2017	Assembly Member Rob Bonta (D-Oakland) and aide Graham Drake.
District Meeting	9/26/2017	Tom Bartee, district director of State Senator Bill Dodd (D-Vallejo)
District Meeting	9/26/2017	Senator Mike McGuire (D-San Rafael) and district representative Carole Mills
District Meeting	9/27/2017	State Senator Scott Wiener (D-San Francisco) and district director Jeff Sparks
District Meeting	9/27/2017	Mary Nicely, district director of Assembly Member Tony Thurmond (D-Oakland)
District Meeting	9/28/2017	Domingo Candelas, deputy district director for State Senator Jim Bealle (D-Campbell)
District Meeting	9/28/2017	Anurag Pal and Nancy Le, field representatives for Assembly Member Kansen Chu (D-Milpitas)
District Meeting	9/28/2017	Christopher Moylan, district director for Congressman Ro Khanna (D-Santa Clara)
District Meeting	9/28/2017	Stacie Shih, district director to Assembly Ash Kalra (D-
District Meeting	9/28/2017	Kathy Tran, field representative and Allen Chiu, deputy district director to Assembly Member Evan Low (D-Cupertino)
Community meeting	10/8/2017	Assembly Member Sebastien Ridley-Thomas (D-Los Angeles)
Ribbon cutting – Torrance station	10/9/2017	Assembly Member Al Muratsuchi (D-Torrance) and field representative Cody Bridges; State Senator Steven Bradford and district representative Nital Patel
Ribbon cutting – San Ramon station	10/10/2017	Assembly Member Catherine Baker, State Senator Steve Glazer, Supervisor Candace Andersen, Mayor

Website and Social Media

We provide outreach and education through events, materials, video, web and social media that increase awareness in the general public, build support in early market communities and support other projects' specific goals. Our online strategy is to deliver real-world information about FCEVs and hydrogen stations to early adopter audiences. We use email, blogs, Twitter, YouTube and Facebook to share messages about FCEV commercialization and technology with different audience types.

www.cafcp.org	Jul-17	Aug-17	Sep-17
Number of visits	14,166	12,487	11,309
Average time users spent on site	2:04	2:02	2:03
Most visited pages	Station map Home page Stations Cars Lawndale Station	Station map Home page Stations Cars Blog: 30th Retail Hydrogen Station Opens	Station map Home page Stations Diamond Bar Station Cars
Most searched keywords on Google to land on CaFCP website	cafcp hydrogen fueling stations california fuel cell partnership sherman oaks hydrogen m.cafcp.org	m.cafcp.org hydrogen fueling stations cafcp.org latest prices for h2 refueling stations sherman oaks hydrogen	hydrogen fuel stations m.cafcp.org soss cafcp latest prices for h2 refueling stations hydrogen fueling stations
Most referred websites	google bing automobiles.honda.com m.cafcp.org yahoo	google bing t.co (Twitter) yahoo facebook.com	google bing yahoo t.co (Twitter) automobiles.honda.com

FACEBOOK	Jul-17	Aug-17	Sep-17
New likes	24	47	21
Lifetime likes	2,940	2,977	2,987
Lifetime Post Total Reach	14,917	18,214	11,092
Lifetime Engaged Users	883	1,142	716

TWITTER	Jul-17	Aug-17	Sep-17
Tweets for the month	90	18	20
Tweet Impressions	65,100	21,500	21,200
Profile visits	1,391	1,627	1,446
Mentions	276	207	160
New Followers	83	76	92
Total Followers	3,782	3,860	3,949

E-blasts Sent

Webinar for Code Officials on Hydrogen and Fuel Cells, July 19	
Sent July 7, 2017	
Contacts:	438
Opened:	12.8 % - 56 contacts
Bounced:	4.6 % - 20 contacts
No Info:	82.6 % - 362 contacts
Clicked:	2% - 8 contacts
Unsubscribed:	0

Hydrogen Stations Webinar: Network Development Status in California, July 26	
Sent July 7, 2017	
Contacts:	11,016
Opened:	12.7% - 1,397 contacts
Bounced:	2.7% - 298 contacts
No Info:	84.6% - 9,321 contacts
Clicked:	2% - 173 contacts
Unsubscribed:	13

Fuel cell bus costs to decline \$200,000 by 2020	
Sent July 24, 2017	
Contacts:	438
Opened:	31.3% - 140 contacts
Bounced:	0.7% - 3 contacts
No Info:	68.1% - 305 contacts
Clicked:	2% - 9 contacts
Unsubscribed:	2

Webinar Presentation for Code Officials on Hydrogen and Fuel Cells	
Sent July 27, 2017	
Contacts:	49
Opened:	55.1% - 27 contacts
Bounced:	0% - 0 contacts
No Info:	44.9% - 22 contacts
Clicked:	12% - 6 contacts
Unsubscribed:	0

San Ramon Station Open	
Sent July 27, 2017	
Contacts:	10,999
Opened:	15.0% - 1,647 contacts
Bounced:	2.6% - 284 contacts
No Info:	82.4% - 9,068 contacts
Clicked:	2% - 172 contacts
Unsubscribed:	11

2017 Priority Station Locations Letter	
Sent August 2, 2017	
Contacts:	10,973
Opened:	13.8% - 1,514 contacts
Bounced:	2.5% - 271 contacts
No Info:	83.7% - 9,188 contacts
Clicked:	3% - 302 contacts
Unsubscribed:	21

July 2017 Hydrogen Station Update Webinar - Q&A	
Sent August 2, 2017	
Contacts:	226
Opened:	53.5% - 121 contacts
Bounced:	1.8% - 4 contacts
No Info:	44.7% - 101 contacts
Clicked:	24% - 54 contacts
Unsubscribed:	0

Webinar for 2017 Annual Evaluation of Fuel Cell Electric Vehicles Deployment and Hydrogen Fuel Station Network Development (AB8)	
Sent August 18, 2017	
Contacts:	10,946
Opened:	12.5% - 1,373 contacts
Bounced:	2.4% - 266 contacts
No Info:	85.0% - 9,307 contacts
Clicked:	2% - 257 contacts
Unsubscribed:	6

Torrance Station Open	
Sent August 18, 2017	
Contacts:	10,931
Opened:	14.1% - 1,540 contacts
Bounced:	2.4% - 262 contacts
No Info:	83.5% - 9,129 contacts
Clicked:	2% - 169 contacts
Unsubscribed:	9

August 2017 AB8 Report Webinar - Q&A	
Sent September 6, 2017	
Contacts:	226
Opened:	52.7% - 119 contacts
Bounced:	1.8% - 4 contacts
No Info:	45.6% - 103 contacts
Clicked:	18% - 41 contacts
Unsubscribed:	0

31st Retail Hydrogen Station Opens in Fremont	
Sent September 8, 2017	
Contacts:	10,913
Opened:	11.7% - 1,279 contacts
Bounced:	2.4% - 264 contacts
No Info:	85.9% - 9,370 contacts
Clicked:	1% - 130 contacts
Unsubscribed:	14

San Ramon Hydrogen Station Ribbon Cutting Invite, October 10	
Sent September 22, 2017	
Contacts:	434
Opened:	32.0% - 139 contacts
Bounced:	0.9% - 4 contacts
No Info:	67.1% - 291 contacts
Clicked:	5% - 20 contacts
Unsubscribed:	1

Agenda Item #2

Lisa Mirisola

Renew California Fuel Cell Partnership
Membership, Receive and File California Fuel
Cell Partnership Executive Board Meeting
Agenda and Quarterly Updates, and
Participate in California Hydrogen
Infrastructure Research Consortium

Background



- The CaFCP was created in 1999
“Promote fuel cell vehicle commercialization as a means of moving towards a sustainable energy future.”
- SCAQMD accepted formal request to join in March 2000
- 14 current Executive Board Members
 - Automobile manufacturers (7)
 - Government agencies (3)
 - Industry stakeholders (4)
- 29 Full & Associate Members



2017 Highlights



- Dr. Clark E. Parker served as Chair for 2017
- 31 retail hydrogen stations open in CA;
18 in South Coast region, <http://m.cafcop.org>
- 31 more new/upgrade retail stations funded
 - AB 8 provides funding for 100 stations through 2023
- Fuel cell vehicles
 - Light-duty cars: 3,234 operating in CA*
 - Transit buses in service: Sunline (5), OCTA (1), AC Transit (14);
33 buses & 4 shuttles in development for CA
- Hydrogen infrastructure members increased

* Number of cumulative total FCEV sales data as of December 1, 2017 from HybridCars.com and Carsalesdatabase.com

Recent Event Highlights



Sustain OC Advanced
Transportation Symposium,
Irvine, CA



El Dorado National
bus factory tour
Riverside, CA



Pacific Oil
Conference
Los Angeles, CA

CaFCP Goals For 2018

- Support the construction and commissioning of hydrogen stations
- Share and synchronize experience
- Reach target markets and communities to educate and promote hydrogen & FCEVs
- Implement CaFCP restructuring to be more inclusive and capable of meeting expanding commercial market

CaFCP Truck & Bus Fueling Codes & Standards Coordination

With additional support from some CaFCP members to facilitate the foundational work required for the growth of medium- and heavy-duty fuel cell truck and bus deployments, additional tasks are proposed:

- Sponsor SAE J2600 Compressed Hydrogen Surface Vehicle Fueling Connection Devices revision to include high flow interface geometries and align with ISO 17268
- Sponsor SAE J2601-2 Fueling Protocol for Gaseous Hydrogen Powered Heavy Duty Vehicles from TIR 2014 to Surface Vehicle Standard & align with J2600 & ISO
- General MD/HD vehicle and infrastructure safety, codes, and standards & update first responder training
- Facilitate task forces (truck & bus) and outreach; coordinate 2018 Fuel Cell Electric Truck (FCET) Action Plan with stakeholders

California Hydrogen Infrastructure Research Consortium

- Proposal submitted to U.S. DOE H2@Scale program with national labs, by CA GO-Biz, CARB, CEC and SCAQMD
- Joint agreement led by NREL to continue hydrogen infrastructure research efforts, focused on California near-term priorities
- Project Management Plan with schedule, budget, roles, milestones, tasks and reporting



Recommended Actions

- Execute contract(s) from the Clean Fuels Fund (31) with Frontier Energy, Inc., acting on behalf of the CaFCP, to:
 - renew SCAQMD's membership for 2018 at Executive Board level, not to exceed \$70,000
 - provide support for Regional Coordinator not to exceed \$50,000
 - Provide support for fuel cell truck and bus codes and standards coordination not to exceed \$125,000
- Receive & File Executive Board Meeting Agenda and Quarterly Updates
- Execute joint agreement to participate in the California Hydrogen Infrastructure Research Consortium in an amount not to exceed \$100,000 from the Clean Fuels Fund (31)

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DRAFT
Technology Committee Agenda #3

BOARD MEETING DATE: February 2, 2018

AGENDA NO.

PROPOSAL: Demonstrate Zero Emission Cargo Handling Vehicles at Port of Long Beach

SYNOPSIS: The Port of Long Beach and its project partners have received \$5.3 million in funding from CARB through its Low Carbon Transportation Investments and Air Quality Improvement Program grant solicitation to demonstrate five zero emission cargo handling vehicles at the Port of Long Beach. This demonstration includes three battery electric top handlers, one battery electric yard truck and one hydrogen fuel cell yard truck. The project will provide a unique opportunity to directly compare the performance of battery electric trucks to hydrogen fuel cell trucks. Project partners include CARB, Port of Long Beach, Long Beach Container Terminal and SSA Marine Terminal for a total project cost of \$8.3 million. This action is to execute a contract with the Port of Long Beach in an amount not to exceed \$350,000 from the Clean Fuels Fund (31).

COMMITTEE: Technology, January 19, 2018; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with the Port of Long Beach in an amount not to exceed \$350,000 from the Clean Fuels Fund (31) for a zero emission cargo handling vehicle demonstration project at the Port of Long Beach.

Wayne Nastri
Executive Officer

MMM:FM:NB:PSK

Background

The Port of Long Beach (POLB) and its project partners submitted an application to CARB under their Low Carbon Transportation Investments and Air Quality Improvement Program grant solicitation for a project entitled Commercialization of the Port of Long Beach Off-Road Technology Demonstration Project (C-PORT). This demonstration project provides a unique opportunity to directly compare the performance of battery

electric trucks to hydrogen fuel cell trucks, as well as provide a pathway for implementation of the recently adopted Clean Air Action Plan. CARB recently awarded the POLB \$5,339,820 towards the C-PORT project, which was approved by the Board of Harbor Commissioners on January 8, 2018.

Proposal

The POLB C-PORT project is to: 1) design, develop and demonstrate three battery electric top handlers at the Long Beach Container and SSA Marine Terminals; 2) design, develop and demonstrate one battery electric and one hydrogen fuel cell yard tractor at the Long Beach Container Terminal; and 3) install electric charging and hydrogen fueling infrastructure to support operation of these vehicles in revenue service for a minimum of six months. It is anticipated that up to three vehicle original equipment manufacturers and three technology vendors will be involved in this project.

POLB will also conduct a zero emission vehicle education outreach program for residents of nearby disadvantaged communities by working with Green Education, Inc.; Center for International Trade and Transportation at California State University Long Beach; Cabrillo High School Academy of Global Logistics in the Long Beach Unified School District; and Long Beach City College. The project will also work with the International Longshore Warehouse Union, which represents more than 33,000 dock workers on the west coast of the U.S., Hawaii, Alaska and British Columbia, Canada, to work in collaboration with the POLB to develop a set of tools and processes to evaluate the impact of the proposed technologies on terminal operators and the local workforce. Tetra Tech, Inc., will serve as the program evaluator and collect and analyze project data.

Sole Source Justification

Section VIII.B.2. of the Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. The request for a sole source award for this project is made under the provision B.2.d.(1): Projects involving cost-sharing by multiple sponsors. This development and demonstration project will be cost-shared by CARB, POLB and other project partners as listed in the Resource Impacts section.

Benefits to SCAQMD

Projects to support development and demonstration of battery electric and hydrogen fuel cell transportation technologies are included in the *Technology Advancement Office Clean Fuels Program 2017 Plan Update* under “Electric/Hybrid Technologies & Infrastructure” and “Hydrogen and Mobile Fuel Cell Technologies & Infrastructure.” This project is to demonstrate zero emission cargo handling vehicles for goods movement activities, providing additional NO_x reductions towards attainment of upcoming 1-hour and 8-hour ozone air quality standards, as well as 24 hour and annual PM_{2.5} air quality standards.

Resource Impacts

The total project cost for the zero emission cargo handling vehicle demonstration is estimated at \$8,338,410, of which SCAQMD's cost-share will not exceed \$350,000 from the Clean Fuels Fund (31). Anticipated cost-share is listed in the table below.

Partner Cost-Share

Project Partner	Cost-Share
CARB	\$5,339,820
POLB	1,560,710
Long Beach Container Terminal	\$642,321
SSA Marine Terminal	445,559
SCAQMD (<i>requested</i>)	350,000
Total	\$8,338,410

Sufficient funds are available from the Clean Fuels Fund (31), established as a special revenue fund resulting from the state-mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.

Agenda Item #3

Patricia Kwon

Demonstrate Zero Emission
Cargo Handling Vehicles at
Port of Long Beach

Background

- Port of Long Beach (POLB) proposed C-PORT cargo handling vehicle demonstration project
- Design, develop and demonstrate
 - Battery electric top handlers
 - Battery electric and hydrogen fuel cell yard trucks
- POLB received \$5.3M in CARB funding under Low Carbon Transportation Investments & Air Quality Improvement Program



Proposal

- Directly compare battery electric to hydrogen fuel cell yard trucks
- Evaluate impacts of technologies on terminal operators
- Three vehicle OEM providers and OEM providers and three technology providers
- Install electric fast charging and mobile hydrogen fueling infrastructure to support vehicles



Battery Electric Yard Truck



Hydrogen Fuel Cell Yard Truck



Proposal (cont'd)

- POLB will also conduct zero emission vehicle education outreach to residents of disadvantaged communities
 - Green Education, Inc.
 - Center for International Trade & Transportation (CSULB)
 - Cabrillo HS Academy of Global Logistics (LBUSD)
 - Long Beach City College



Battery Electric Top Handler

Electric Fast
Charging Station

Mobile Hydrogen Fueling Station



Proposed Project Cost-Share

Project Partners	Funding Amount	Percent (%)
CARB	\$5,339,820	64
Port of Long Beach	\$1,560,710	19
Long Beach Container Terminal	\$642,321	8
SSA Marine Container Terminal	\$445,559	5
SCAQMD (<i>requested</i>)	\$350,000	4
Total	\$8,338,410	100

Recommended Action

Authorize the Chairman to execute contract with the Port of Long Beach in an amount not to exceed \$350,000 from the Clean Fuels Fund (31) for zero emission cargo handling vehicle demonstration project

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DRAFT
Technology Committee Agenda #4

BOARD MEETING DATE: February 2, 2018

AGENDA NO.

PROPOSAL: Recognize Revenue to Develop Test Standard for Performance Verification of Low-Cost Indoor Air Quality Sensors

SYNOPSIS: DOE's Office of Energy Efficiency and Renewable Energy awarded its competitive research grant, "Building America Industry Partnerships for High Performance Housing Innovation," to Newport Partners, LLC, to develop an American Society for Testing and Materials test standard for performance verification of low-cost indoor air quality sensors. SCAQMD and researchers from Home Ventilating Institute and Texas A&M Riverside Energy Efficiency Laboratory will collaborate with Newport Partners, LLC, on the development of this test standard. This action is to recognize revenue up to \$56,106 from Newport Partners, LLC, to support collaboration of this project.

COMMITTEE: Technology, January 19, 2018; Recommended for Approval

RECOMMENDED ACTION:

Recognize revenue, upon receipt, up to \$56,106 from Newport Partners, LLC, to reimburse SCAQMD for Salary and Employee Benefits costs related to collaboration of the project to develop a test standard performance verification of low-cost indoor air quality sensors.

Wayne Natri
Executive Officer

MMM:JCL:AP

Background

With the advent of low-cost gaseous and particulate sensors, optimized, energy efficient ventilation techniques for maintaining acceptable indoor air quality (IAQ) are possible. However, research has shown that the accuracy of sensors being offered for this purpose varies widely. Until a standardized test method is developed for determining the accuracy of low-cost IAQ sensors, builders and designers cannot specify such sensors or

the “smart ventilation” systems that they control with the assurance of adequate performance. As a result, potential energy savings are lost, consumers can suffer from poor IAQ due to low quality sensors, and builders would be averse to using smart ventilation systems. To address the gap in standardized test methods for low-cost IAQ sensors, Newport Partners, LLC, has submitted a proposal to the DOE to source funding for the development of a test standard.

Through the development of the AQ-SPEC test methods for low-cost air quality sensors, SCAQMD has completed the elements of developing a consensus test standard. The building blocks that are now in place that creates a proof-of-concept for this project include:

- Acquisition of reference instruments needed for reference measurements;
- Identification of critical performance characteristics for test method verification, including but not limited to accuracy and precision;
- Development of performance evaluation test methods for criteria pollutants and air toxics sensors; and
- Performance of initial evaluations of sensors to the test methods (SCAQMD has tested over 30 sensors to date).

Proposal

SCAQMD will partner with Newport Partners, Home Ventilating Institute, and Texas A&M Riverside Energy Efficiency Laboratory to achieve the overarching objective of this project which is to develop and publish an American Society for Testing and Materials (ASTM) consensus test standard for performance verification of low-cost IAQ sensors. Critical success factors include:

- Convening a work group of industry-leading stakeholders including laboratories, manufacturers and industry groups;
- Transitioning SCAQMD’s test methods applicable to outdoor/indoor air quality sensors to a consensus test standard focused on indoor air quality applications;
- Incorporating adequate stringency into test methods to ensure repeatability and reliability while minimizing testing costs for sensor manufacturers;
- Verifying test standard suitability through lab testing; and
- Communicating with ASTM staff and relevant subcommittees and committees to ensure publication of the standard within two years of the project’s award.

For this purpose, SCAQMD will provide access to low-cost IAQ sensor test methods, engineering consulting with respect to development of the test standard, and conduct lab tests on low-cost test sensors in accordance with the draft test standard to identify opportunities for improvement.

The outcome of this project will be development of a consensus-based test standard for verifying IAQ sensor performance. Developing a standardized test method for IAQ sensors is essential to empower codes, standards and code programs to confidently approve smart ventilation solutions that can minimize ventilation energy use while safeguarding occupant health.

Benefits to SCAQMD

SCAQMD has the nation's leading laboratory with respect to evaluating and developing test methods for low-cost air quality sensors (AQ-SPEC). SCAQMD draft test methods are the most advanced guidelines available on this subject in both the U.S. and Europe. DOE funding is critical to advance SCAQMD's work in this area beyond draft methods. The results of this project will quickly transition the industry to a standardized, consensus-based test standard that can be referenced in mandatory ventilation codes and standards. This project will also lay the foundation for the development of performance standards for low-cost outdoor air quality sensors, an important step towards the development of a sensor certification program.

Resource Impacts

Sufficient funding is available for this project within the Science & Technology Advancement Budget using existing staff resources. The DOE has authorized funding of \$56,106 for this test standard development for SCAQMD through Newport Partners, LLC, and those funds will be recognized upon receipt to reimburse SCAQMD for Salary and Employee Benefits costs related to this project. SCAQMD shall provide cost-sharing in the amount of \$22,442 (Salaries and Employee Benefits only) for the project.

Agenda Item #4

Andrea Polidori

Recognize Revenue to Develop Test Standard
for Performance Verification of
Low-Cost Indoor Air Quality Sensors

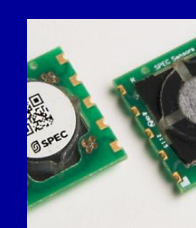
Background

- Accuracy of sensors for monitoring indoor air quality (IAQ) vary widely
- AQ-SPEC test methods for low-cost air quality sensors provides building blocks for developing a consensus test standard for monitoring IAQ
- Recently, DOE's Office of Energy Efficiency and Renewable Energy awarded a research grant to Newport Partners, LLC, to develop ASTM test standard for performance verification of low-cost indoor air quality sensors



Proposal

- SCAQMD's AQ-SPEC group will partner with Newport Partners, Home Ventilating Institute, and Texas A&M REEL to conduct this project
- AQ-SPEC staff will help develop and publish an ASTM consensus test standard for performance verification of low-cost indoor air quality sensors for measuring PM2.5, NO2 and relative humidity
- Project will lay the foundation for the potential development of performance standards for low-cost outdoor air quality sensors



Recommended Action

- Recognize revenue up to \$56,106 from Newport Partners, LLC, to reimburse SCAQMD for costs related to collaboration of the project