



South Coast Air Quality Management District

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

TO: SCAQMD Technology Committee
Joe Buscaino, Chair
Sheila Kuehl, Vice Chair
Larry McCallon, Judith Mitchell, Dwight Robinson, Janice Rutherford

FROM: Matt Miyasato, DEO, Science & Technology Advancement

TECHNOLOGY COMMITTEE

21865 Copley Drive, Diamond Bar, CA 91765
April 21, 2017 ♦ 12:00 p.m. ♦ Conference Room – CC-8

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

MAY BOARD AGENDA ITEMS FOR ACTION/DISCUSSION

1. Approve Awards for Electric School Buses

At its December 2, 2016 meeting, the Board issued a Program Announcement to solicit applications for electric school buses. This action is to approve awards for 33 electric school buses and associated charging infrastructure in an amount not to exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80).

Vicki White
Technology
Implementation
Manager

2. Execute Contract to Develop High Efficiency Near-Zero Emission Natural Gas Engines for Heavy-Duty Vehicles

Joseph Lopat
AQ Specialist

In December 2016, the CEC released a competitive solicitation to fund development of advanced natural gas engine technology capable of reducing the efficiency gap between heavy-duty natural gas engines and equivalent diesel engines. The CEC received five responses to the solicitation and recommended three grant awards, one of which was to North American Repower, LLC (NAR). Staff proposes to cost-share this project, along with the Southern California Gas Company who will be contracting directly with NAR. This action is to execute a contract with NAR to develop a high efficiency near-zero emission heavy-duty natural gas engine in an amount not to exceed \$200,000 from the Clean Fuels Fund (31).

3. Execute Contract to Educate Communities in Use and Operation of AQ Sensors

Andrea Polidori
Atmospheric
Measurements
Manager

On November 4, 2016, the Board approved the execution of four contracts from Science & Technology Advancement's FY 2016-17 Budget to participate in U.S. EPA's Science to Achieve Results (STAR) Grant project. Three contractors have already executed agreements. This action is to execute a contract with Comite Civico Del Valle, Inc., as the fourth contractor in an amount not to exceed \$82,500 from Science & Technology Advancement's FY 2016-17 and/or 2017-18 Budget to educate community members in the use and operation of air quality sensors.

Next Meeting: May 19, 2017 at SCAQMD Headquarters in CC-8

Document Availability

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

Americans with Disabilities Act

The agenda and documents in the agenda packet will be made available, upon request, in appropriate alternative formats to assist persons with a disability. Disability-related accommodations will also be made available to allow participation in the Technology 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 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to pkrayser@aqmd.gov.

DRAFT Technology Committee Agenda #1

BOARD MEETING DATE: May 5, 2017

AGENDA NO.

PROPOSAL: Approve Awards for Electric School Buses

SYNOPSIS: At its December 2, 2016 meeting, the Board issued a Program Announcement to solicit applications for electric school buses. This action is to approve awards for 33 electric school buses and associated charging infrastructure in an amount not to exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80).

COMMITTEE: Technology, April 21, 2017; Recommended for Approval

RECOMMENDED ACTIONS:

Authorize the Chairman to execute the following contracts in an amount not to exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80):

1. Anaheim Elementary School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
2. Anaheim Union High School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
3. Baldwin Park Unified School District for up to 2 electric buses and associated charging infrastructure in an amount not to exceed \$536,000;
4. Bassett Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
5. Bellflower Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
6. Coachella Valley Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
7. Covina Valley Unified School District for 1 electric school bus and associated charging infrastructure in an amount not to exceed \$268,000;
8. Fontana Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
9. Jurupa Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
10. Los Angeles Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
11. Los Angeles Leadership Primary Academy for 1 electric school bus and associated charging infrastructure in an amount not to exceed \$268,000;

12. Lynwood Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
13. Magnolia School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
14. Montebello Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
15. Mountain View School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
16. Rialto Unified School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000;
17. Savanna School District for up to 2 electric school buses and associated charging infrastructure in an amount not to exceed \$536,000; and
18. Today's Fresh Start Charter School for 1 electric school bus and associated charging infrastructure in an amount not to exceed \$268,000.

Wayne Nastri
Executive Officer

MMM:FM:VW:RSG

Background

Since the commencement of the Lower-Emission School Bus Program in 2001, SCAQMD has provided over \$280 million in state and local funds to replace over 1,600 highly polluting school buses with alternative fuel buses and to retrofit over 3,300 school buses with particulate traps.

At its December 2, 2016 meeting, the Board approved the issuance of Program Announcement (PA) #PA2017-01 to provide funds to public school districts to purchase zero emission, battery-operated electric school buses. These buses must be either Type C or Type D, included on CARB's approved list, have a minimum battery range of 60 miles from a single charge, and have a battery warranty of at least five years. Consistent with CARB Mail-Out #MSC 15-19, eligible applicants will not be required to replace and scrap an older school bus when they purchase a new electric school bus. When the PA closed on February 10, 2017, applications were received from 51 public school districts and 2 private charter schools requesting a total of 295 electric school buses.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the PA and inviting bids was published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press

Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may have been notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the PA was 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>).

Proposal

This action is to execute contracts with 16 public school districts and 2 charter schools, as outlined in Table 1, for the purchase of 33 electric school buses and associated charging infrastructure in an amount not to exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80).

Given the strong response to the PA from school districts, staff proposes to award funding only to schools located in disproportionately impacted areas based on the criteria used for the Carl Moyer Program as described below:

- a. Poverty Level: An area where at least 10 percent of the population falls below the Federal poverty level based on the 2008-2012 American Community Survey (ACS) data;
- b. PM2.5 Exposure: An area with the highest 15 percent of PM2.5 concentration measured within a 2 km grid. The highest 15 percent of PM2.5 concentration is 11.1 micrograms per cubic meter and above, on an annual average;
- c. Air Toxics Exposure: An area with a cancer risk of 894 in a million and above (based on MATES IV estimates) will be eligible to be ranked in this category.

The maximum score is comprised of 40 percent for poverty level and 30 percent each for PM and toxic exposures. The specific garage location and the entire zip code where the school buses will be parked were chosen for this evaluation. Schools with a score of greater than 0.4, corresponding to approximately 68% of that entire zip code being in disproportionately impacted area, are recommended for awards.

Staff proposes to award two electric school buses to all the schools in disproportionately impacted areas with the exception of three schools who requested funding for only one electric school bus. The proposed funding distribution per county is listed below, which is also roughly proportional to the 2010 census for county population distribution.

- Los Angeles County: 52%
- Orange County: 24%
- Riverside County: 12%
- San Bernardino County: 12%

There are currently two Type C electric school buses that are approved by CARB. Any of these buses and any other electric school bus to be approved by CARB before the placement of the purchase orders will be eligible for funding.

This will also be the first time that, in close cooperation, the SCAQMD and CARB will be jointly funding such an incentive program. As agreed with CARB, up to \$368,000, including sales tax, would be allowed as the full price of an electric school bus from CARB's approved list. Through the Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP), CARB is providing up to \$120,000 per electric school bus that operates in disadvantaged communities. To be eligible for funding, subsequent to the SCAQMD Board approval and prior to contract execution, the applicant must apply, and get approval, for HVIP funds from CARB. The SCAQMD funds will then be used to pay for the balance of the electric school bus not exceeding \$248,000, after subtracting the HVIP voucher amount. In addition, the SCAQMD will provide up to \$20,000 per bus for charging infrastructure. In case schools are not successful in receiving HVIP funds but are still interested in purchasing the buses solely with the SCAQMD funding award, contracts will be executed up to the approved amounts.

Benefits to SCAQMD

The successful implementation of this program will provide less-polluting and safer school transportation for school children and will reduce public exposure to toxic diesel particulate matter emissions. In addition, these awards comply with AB 1390 requirements, such that it would reduce air pollution in low-income, high-diesel and high-PM10 exposure areas as well as enhance the objectives of the Environmental Justice and Children's Health Initiatives adopted by the SCAQMD Board.

Resource Impacts

Total funding for the recommended awards shall not exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80).

Attachment

Table 1: Recommended Awards for Electric School Buses and Charging Infrastructure

**Table 1: Recommended Awards for Electric School Buses
and Charging Infrastructure**

Applicant	County	No. of Buses	Bus Award	Infrastructure	Total Award
Baldwin Park	LA	2	\$496,000	\$40,000	\$536,000
Bassett	LA	2	\$496,000	\$40,000	\$536,000
Bellflower	LA	2	\$496,000	\$40,000	\$536,000
Covina Valley	LA	1	\$248,000	\$20,000	\$268,000
Los Angeles	LA	2	\$496,000	\$40,000	\$536,000
Los Angeles Leadership Primary Academy	LA	1	\$248,000	\$20,000	\$268,000
Lynwood	LA	2	\$496,000	\$40,000	\$536,000
Mountain View	LA	2	\$496,000	\$40,000	\$536,000
Montebello	LA	2	\$496,000	\$40,000	\$536,000
Today's Fresh Start	LA	1	\$248,000	\$20,000	\$268,000
Total LA Co.		17	\$4,216,000	\$340,000	\$4,556,000
Anaheim Elementary	OR	2	\$496,000	\$40,000	\$536,000
Anaheim Union High	OR	2	\$496,000	\$40,000	\$536,000
Magnolia	OR	2	\$496,000	\$40,000	\$536,000
Savanna	OR	2	\$496,000	\$40,000	\$536,000
Total Orange Co.		8	\$1,984,000	\$160,000	\$2,144,000
Coachella Valley	RV	2	\$496,000	\$40,000	\$536,000
Jurupa	RV	2	\$496,000	\$40,000	\$536,000
Total RV Co.		4	\$992,000	\$80,000	\$1,072,000
Fontana	SB	2	\$496,000	\$40,000	\$536,000
Rialto	SB	2	\$496,000	\$40,000	\$536,000
Total SB Co.		4	\$992,000	\$80,000	\$1,072,000
Total, All Applicants		33	\$8,184,000	\$660,000	\$8,844,000

Agenda Item #1

Vicki White

Approve Awards for Electric
School Buses

Background

- In December 2016, the Board approved issuance of a Program Announcement for electric school buses
- Public school districts, Joint Power Authorities and charter schools qualify
- School buses must be CARB-approved:
 - There are currently 2 Type C manufacturers:
 - a) Lion Bus and b) Motiv Power Systems



Proposal

- Provide funding to all applicants in EJ areas
- Dismantling of older school buses not required
- Subsequent to SCAQMD Board approval, schools must also apply for HVIP funding to leverage SCAQMD funds
- Combined SCAQMD and HVIP funds will cover total bus base price and sales tax as well as associated infrastructure



Proposal

- As agreed with CARB, up to \$368K is accepted for base price and sales tax and up to \$20K for infrastructure
- If not successful in receiving HVIP funds (\$120K per bus), schools may choose to receive SCAQMD funds only (\$248K per bus)
- Only schools in disproportionately impacted areas according to Carl Moyer Guidelines were selected
- Award funding to 2 charter and 16 public schools for 33 buses, with 2 buses per school except for three schools who requested 1 bus each

Proposed Funding

- As agreed with CARB, the combined funding for each electric school bus would be:

Funding Source	Funding Amount
CARB HVIP per bus	\$120,000
SCAQMD funding per bus	\$248,000
SCAQMD funding for infrastructure	\$20,000

Proposed Awards Distribution

Awards per County	No of Schools	No of Buses	Funding Amount per County	Percentage
Los Angeles	10	17	\$4,556,000	52%
Orange	4	8	\$2,144,000	24%
Riverside	2	4	\$1,072,000	12%
San Bernardino	2	4	\$1,072,000	12%
Total	18	33	\$8,844,000	

Recommended Action

- Execute contracts for electric school buses and associated charging infrastructure in an amount not to exceed \$8,844,000 from the Carl Moyer Program AB 923 Fund (80)

DRAFT Technology Committee Agenda #2

BOARD MEETING DATE: May 5, 2017

AGENDA NO.

PROPOSAL: Execute Contract to Develop High Efficiency Near-Zero Emission Natural Gas Engines for Heavy-Duty Vehicles

SYNOPSIS: In December 2016, the CEC released a competitive solicitation to fund development of advanced natural gas engine technology capable of reducing the efficiency gap between heavy-duty natural gas engines and equivalent diesel engines. The CEC received five responses to the solicitation and recommended three grant awards, one of which was to North American Repower, LLC (NAR). Staff proposes to cost-share this project, along with the Southern California Gas Company who will be contracting directly with NAR. This action is to execute a contract with NAR to develop a high efficiency near-zero emission heavy-duty natural gas engine in an amount not to exceed \$200,000 from the Clean Fuels Fund (31).

COMMITTEE: Technology, April 21, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with North American Repower, LLC, for the development of high efficiency near-zero emission natural gas engines for on-road heavy-duty vehicles in an amount not to exceed \$200,000 from the Clean Fuels Fund (31).

Wayne Nastri
Executive Officer

MMM:FM:NB:AAO:JL

Background

While natural gas engines are achieving near-zero emission levels, diesel engines are still more efficient. Recent studies and new generations of natural gas engines are showing that the efficiency gap between natural gas and diesel engines is shrinking as advanced technologies are employed in natural gas engines. Consequently, last year, the SCAQMD, CEC and Southern California Gas Company (SoCalGas) began discussing with engine manufacturers the need to develop near-zero natural gas engines with efficiencies comparable to diesel engines. As a result of those discussions, in December

2016, the CEC released a competitive solicitation seeking proposals to develop advanced natural gas engine technology capable of reducing the efficiency gap between heavy-duty natural gas engines and equivalent diesel engines. The CEC received five proposals in response to the solicitation, and in March 2017, recommended three grant awards, one of which was to North American Repower, LLC (NAR). Given market demand for high efficiency near-zero emission heavy-duty natural gas engines, staff proposes to cost-share this project, along with the Southern California Gas Company (SoCalGas) who will be contracting directly with NAR.

Proposal

The objective of the proposed project is to advance natural gas engine and aftertreatment technologies to achieve engine efficiency comparable to diesel engines and NOx emission levels that are at least 90% lower than 2010 heavy-duty NOx emission standards. NAR will convert a 2016 CARB-certified diesel engine to lean-burn natural gas suitable for Class 8 heavy-duty vehicle applications. The optimization will include piston design, modification of controller software and the latest technology in advanced spark ignition together with new aftertreatment technology to reach near-zero NOx. Once developed, the engine will be tested using both the Federal Test Procedure for emissions certification and non-certification test cycles representative of real-world use in different vocations that are prevalent in the South Coast Air Basin (SCAB). The use of vocational-specific test cycles will provide additional insight towards the engine's real-life emission reduction potential at the desired increased efficiency.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for 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 the SCAQMD. Specifically, these circumstances are B.2.d(1): Projects involving cost sharing by multiple sponsors. The proposed project will be cost-shared by the CEC, SoCalGas and NAR, as outlined in Resources Impacts.

Benefits to SCAQMD

Projects to support implementation of various clean fuel vehicle programs are included in the *Technology Advancement Office Clean Fuels Program 2017 Plan Update* within the category "Engine Systems" under "Develop and Demonstrate Advanced Gaseous- and Liquid-Fueled Medium- and Heavy-Duty Engines and Vehicles Technologies to Achieve Ultra-Low Emissions". This project is to develop high efficiency near-zero emission natural gas engines for on-road heavy-duty vehicles. This engine can also be fueled with renewable natural gas. Successful development will help to accelerate wide-scale deployment of such engines in the region while reducing NOx and GHG emissions to help reach AQMP attainment and state climate change goals.

Resource Impacts

The proposed project budget is approximately \$1,958,096, with funding anticipated from the CEC, SoCalGas and NAR. SCAQMD's total cost-share shall not exceed \$200,000 from the Clean Fuels Fund (31). The CEC and SoCalGas will contract directly with NAR. Proposed project budget is broken down as follows:

Proposed Project Budget

Funding Source	Cost-Share Amount	Percent
CEC	\$900,000	46
SoCalGas	\$150,000	8
NAR (<i>in-kind</i>)	\$708,096	36
SCAQMD (<i>requested</i>)	\$200,000	10
Total	\$1,958,096	100

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 #2

Joseph Lopat

Execute Contract to Develop High
Efficiency Near-Zero Emission Natural Gas
Engines for Heavy-Duty Vehicles

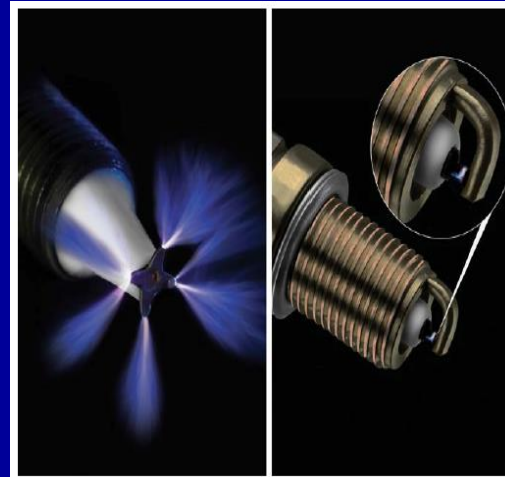
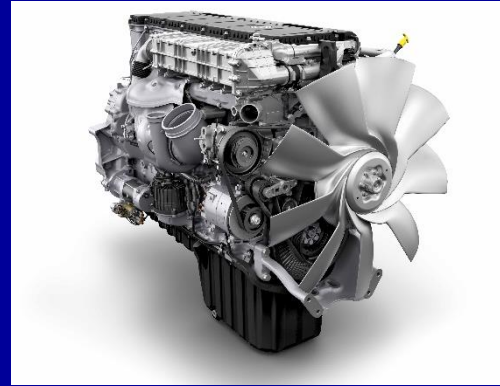
Background

- Natural gas engines are being certified at near-zero emissions
- Market demands natural gas engines with diesel engine efficiency
- Last year, CEC released RFP to develop greater efficiencies in natural gas engines
- In March 2017, North American Repower (NAR) received \$900,000 grant from CEC



Proposal

- NAR will optimize an existing heavy-duty diesel engine
- Develop 13-liter heavy-duty natural gas engine with comparable efficiency to diesel engines and achieve near-zero NO_x levels
 - Piston bowl shape
 - Advanced spark ignition
 - Modified controller software
 - New aftertreatment technology
- Conduct emissions testing to compare and verify 0.02 g/bhp-hr NO_x levels



Proposed Project Partners/Budget

Project Partner	Funding Amount	Percent
CEC	\$900,000	46
NAR	\$708,096	36
SoCalGas*	\$150,000	8
SCAQMD (<i>requested</i>)	\$200,000	10
Total	\$1,958,096	100

*Separate agreement with NAR

Recommended Action

- Execute contract with NAR to develop a 13-liter heavy-duty natural gas engine with high efficiency and near-zero NOx in an amount not to exceed \$200,000 from Clean Fuels Fund (31)

BOARD MEETING DATE: May 5, 2017

AGENDA NO.

PROPOSAL: Execute Contract to Educate Communities in Use and Operation of Air Quality Sensors

SYNOPSIS: On November 4, 2016, the Board approved the execution of four contracts from Science & Technology Advancement's FY 2016-17 Budget to participate in U.S. EPA's Science to Achieve Results (STAR) Grant project. Three contractors have already executed agreements. This action is to execute a contract with Comitè Civico Del Valle, Inc., as the fourth contractor in an amount not to exceed \$82,500 from Science & Technology Advancement's FY 2016-17 and/or 2017-18 Budget to educate community members in the use and operation of air quality sensors.

COMMITTEE: Technology, April 21, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Executive Officer to execute a contract with Comitè Civico Del Valle, Inc., upon EPA approval, to help recruit communities and individuals willing to operate air quality sensors in Southern and Central California over a three-year period in an amount not to exceed \$82,500 from Science & Technology Advancement's (Org 43) FY 2016-17 and/or 2017-18 Budget.

Wayne Nastri
Executive Officer

MMM:JCL:AP:ld

Background

In 2014, SCAQMD applied for a competitive U.S. EPA Science to Achieve Results (STAR) grant and was awarded \$749,820 to provide local California communities with the knowledge necessary to appropriately select, use and maintain sensors as well as correctly interpret sensor data. On October 7, 2016, the Board recognized \$749,820 in revenue into the General Fund and appropriated \$670,500 to Science & Technology Advancement's FYs 2016-17, 2017-18 and 2018-19 Budgets, Services and Supplies Major Object, while noting the remaining balance (\$79,320) was already included in Salaries and Employee Benefits Major Object within Science & Technology

Advancement's budget. The STAR grant project was to conduct a comprehensive study focusing on the following specific aims:

1. Develop new methods to engage, educate and empower local communities on the use and applications of "low-cost" sensors;
2. Conduct field and laboratory testing to characterize the performance of commercially available "low-cost" sensors and identify candidates for field deployment;
3. Deploy the selected sensors in multiple California communities and perform a thorough validation and interpretation of the collected data; and
4. Communicate the lessons learned to the public and organize outreach activities.

Subsequently, on November 4, 2016, the Board approved the execution of contracts from Science & Technology Advancement's FY 2016-17 Budget with four contractors including the Communities for a Better Environment (CBE) to participate in the STAR project. Three of the four contractors have already executed agreements, however CBE has decided not to participate. Comitè Civico Del Valle, Inc., is now being proposed as the fourth contractor.

Proposal

This action is to execute a contract with Comitè Civico Del Valle, Inc., (CCV), upon EPA approval, to educate community members in the use and operation of air quality sensors. CCV was founded in 1987, has a long history of working with local communities on specific air quality issues, has extensive experience with low-cost sensors, and is already running a large low-cost sensor network (IVAN Air). Communities will be specifically targeted in Environmental Justice areas and near specific sources of air pollution. Recruitment efforts will be supported by CCV. Regular public meetings and other outreach activities will be organized by SCAQMD in collaboration with CCV to educate the public on the capabilities of commercially available sensors and their potential applications and limitations (Aim 4). All data collected, documentation developed and testing results will be posted online on SCAQMD's AQ-SPEC website (www.aqmd.gov/aq-spec) and shared with the community at no cost.

Sole Source Justification

Section VIII. B. 3 of the Procurement Policy and Procedure identifies four major provisions under which, for contracts funded in whole or in part with federal funds, a sole source award may be justified. This request for sole source award is made under provision B.3.c., which states the awarding federal agency authorizes noncompetitive proposals.

Benefits to SCAQMD

This work will promote the more educated and responsible use of available low-cost sensors within California communities and across the U.S. and help governmental organizations and other policymakers to better understand air quality issues at the community level. It will also serve as a template for developing monitoring strategies and/or studies to provide information on mitigation efforts. Finally, this work will guide the future implementation of sensor networks in other communities.

Resource Impacts

The contract with CCV will not exceed \$82,500 from Science & Technology Advancement's FYs 2016-17 and/or 2017-18 Budget (Org 43) using funds from the U.S. EPA STAR grant award and the AQ-SPEC Program. The U.S. EPA has authorized funding of \$749,820 for the STAR grant, and SCAQMD has received an initial award of \$400,000.

Agenda Item #3

Andrea Polidori

**Execute Contract to Educate
Communities in Use and
Operation of Air Quality Sensors**

Background

- In October 2016, the Board recognized and appropriated \$749,820 awarded to SCAQMD for an EPA Star Grant to educate California communities in the use and operation of low-cost sensors

- Four specific aims:

- *#1: Develop educational material for communities*
- *#2: Evaluate / identify candidate sensors for deployment*
- *#3: Deploy selected sensors in California communities*
- *#4: Communicate to the public the lessons learned*

- Three-year study in collaboration with:

- University of California Los Angeles (UCLA)
- Sonoma Technology Inc. (STI)
- Two community groups (CCAIEJ; CBE)
- CAPCOA agencies



Proposal

- In November 2016, the Board approved the execution of four contracts, but one contractor subsequently withdrew from participation
- Staff proposes to collaborate with Comite Civico Del Valle, Inc., (CCV) on this project:
 - Long history working with local communities (founded in 1987)
 - Extensive experience working with low-cost sensors
 - Already running a large sensor network (IVAN Air)



SANTA BARBARA COUNTY
AIR POLLUTION
CONTROL DISTRICT



Recommended Action

- Execute a contract with CCV to help recruit three communities (i.e., Imperial, Fresno and Kern counties) and individuals willing to operate air quality sensors in Southern and Central California over a three-year period in an amount not to exceed \$82,500 from Science & Technology Advancement's FY 2016-17 and/or 2017-18 Budget