



**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

**March 16, 2018 ♦ 12:00 p.m. ♦ Conference Room CC8
21865 Copley Drive, Diamond Bar, CA 91765**

TELECONFERENCE LOCATION

**638 South Beacon Street
Suite 552
San Pedro, CA 90731**

(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 3

APRIL BOARD AGENDA ITEMS

- 1. Execute Contracts to Conduct Commercial Electric Lawn and Garden Equipment Incentive and Exchange Program in Environmental Justice Areas and Reimburse General Fund for Administrative Costs (*Motion Requested*)**

At its October 6, 2017 meeting, the Board recognized \$2,477,250 from U.S. EPA's 2016 Targeted Air Shed Grant Program and issued a Program Announcement to solicit competitive bids from manufacturers and/or suppliers of commercial-grade, battery-electric lawn and garden equipment. This action is to execute contracts with qualified

Vasken
Yardemian
Program
Supervisor

manufacturers and suppliers of commercial grade, electric lawn and garden equipment for participation in SCAQMD's electric lawn and garden incentive and exchange program in environmental justice areas in an amount not to exceed \$2,955,327, comprised of \$2,327,250 from the U.S. EPA Targeted Air Shed Grant in the Advanced Technology, Outreach and Education Fund (17) and \$628,077 from the Rule 2202 AQIP Special Revenue Fund (27). This action is to also authorize the Executive Officer to amend amounts awarded to each contractor based on the demand for the equipment that will be offered through this program. Finally, this action is to reimburse the General Fund for administrative costs up to \$150,000 for implementation of a commercial lawn and garden equipment program.

2. Recognize Revenue to Replace School and Shuttle Buses and Execute Contract for Battery Electric Shuttle Bus Replacement Project and Reimburse General Fund for Administrative Costs (*Motion Requested*)

Adewale
Oshinuga
Program
Supervisor

In January 2018, U.S. EPA notified SCAQMD that two awards had been approved under a FY 2017 Targeted Air Shed Grant solicitation in the amount of \$3,184,875 each to replace diesel school buses with near-zero emission CNG buses and to replace diesel and gasoline airport shuttle buses with zero emission battery electric buses. Additionally, Phoenix Motorcars, an electric vehicle manufacturer, is committed to providing significant cost-share and securing additional funds from CARB's Hybrid and Zero Emission Truck and Bus Voucher Incentive Project to cofund the shuttle bus replacement project. This action is to recognize revenue up to \$6,369,750 from U.S. EPA into the Clean Fuels Program Fund (31). These actions are to also execute a contract with Phoenix Motorcars for battery electric shuttle bus replacements in an amount not to exceed \$3,122,426 and reimburse the General Fund for administrative costs up to \$62,449 to implement the shuttle bus replacement project. School bus replacement awards under the school bus replacement project will be considered by the Board separately.

3. Recognize and Transfer Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, and Reimburse General Fund for Administrative Costs (*Motion Requested*)

Patricia Kwon
AQ Specialist

CARB is executing Supplemental Environmental Project (SEP) agreements with Western Power Sports, Inc., C.J.J. Farming, JEGS Foundation and Tesoro Companies, Inc., to install and maintain air filtration systems in the South Coast region, with SCAQMD acting as the SEP Implementer. These actions are to recognize up to \$551,875 into the Air Filtration Fund (75), transfer up to \$462,625 as a temporary loan from Clean Fuels Fund (31) to the Air Filtration Fund (75) for the SEP revenue not yet received and execute agreements with the four entities. These actions are to also execute one or more contracts with IQAir North

America for installation of air filtration systems in an amount cumulatively not to exceed \$524,282, reimburse the General Fund for administrative costs up to \$27,593 and amend contract(s) with IQAir to provide funding from unspent administrative fees for the purchase of replacement filters. Finally, this action is to authorize the Executive Officer to execute or amend agreements with local school districts, providing access to schools for the purpose of implementing SEP agreements.

OTHER MATTERS

- 4. 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)*
- 5. 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.
- 6. Next Meeting Date** – Friday, April 20, 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.

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DRAFT
Technology Committee Agenda #1

BOARD MEETING DATE: April 6, 2018

AGENDA NO.

PROPOSAL: Execute Contracts to Conduct Commercial Electric Lawn and Garden Equipment Incentive and Exchange Program in Environmental Justice Areas and Reimburse General Fund for Administrative Costs

SYNOPSIS: At its October 6, 2017 meeting, the Board recognized \$2,477,250 from U.S. EPA's 2016 Targeted Air Shed Grant Program and issued a Program Announcement to solicit competitive bids from manufacturers and/or suppliers of commercial-grade, battery-electric lawn and garden equipment. This action is to execute contracts with qualified manufacturers and suppliers of commercial grade, electric lawn and garden equipment for participation in SCAQMD's electric lawn and garden incentive and exchange program in environmental justice areas in an amount not to exceed \$2,955,327, comprised of \$2,327,250 from the U.S. EPA Targeted Air Shed Grant in the Advanced Technology, Outreach and Education Fund (17) and \$628,077 from the Rule 2202 AQIP Special Revenue Fund (27). This action is to also authorize the Executive Officer to amend amounts awarded to each contractor based on the demand for the equipment that will be offered through this program. Finally, this action is to reimburse the General Fund for administrative costs up to \$150,000 for implementation of a commercial lawn and garden equipment program.

COMMITTEE: Technology, March 16, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute the following contracts totaling an amount not to exceed \$2,955,327, comprised of \$2,327,250 from the U.S. EPA Targeted Air Shed Grant in the Advanced Technology, Outreach and Educational Fund (17) and \$628,077 from the Rule 2202 AQIP Special Revenue Fund (27):
 - a. Golden Eagle Distributing Corporation to exchange ECHO brand lawn mowers, leaf blowers, chain saws, and string and hedge trimmers in an amount not to exceed \$65,397;

- b. American Green Zone Alliance to exchange Greenworks brand lawn mowers, leaf blowers, string and hedge trimmers, chainsaws, and stand-on and ride-on lawn mowers in an amount not to exceed \$589,725;
 - c. Husqvarna Group to exchange lawn mowers, leaf blowers, string and hedge trimmers, chainsaws and robotic lawn mowers in an amount not to exceed \$493,000;
 - d. Makita U.S.A., Inc., to exchange leaf blowers, string and hedge trimmers and chain saws in an amount not to exceed \$77,750;
 - e. Mean Green Products LLC, dba Mean Green Mowers, to exchange walk-behind, stand-on and ride-on lawn mowers in an amount not to exceed \$880,180;
 - f. Blount Inc., dba Oregon, to exchange leaf blowers, string and hedge trimmers and edgers in an amount not to exceed \$427,900; and
 - g. Pacific STIHL to exchange lawn mowers, leaf blowers, string trimmers, hedge trimmers and chain saws in an amount not to exceed \$421,375.
2. Authorize the Executive Officer to amend contracts with the above awardees to move funding amongst the contractors based on demand.
3. Reimburse the General Fund up to \$150,000 from the Advanced Technology, Outreach and Education Fund (17) for administrative costs necessary to implement a commercial lawn and garden equipment program.

Wayne Nastri
Executive Officer

MMM:FM:LCM:VW:VY

Background

At its October 6, 2017 meeting, the Board recognized \$2,477,250 from U.S. EPA's 2016 Targeted Air Shed Grant Program into the Advanced Technology, Outreach and Education Fund (17) and issued Program Announcement #PA2018-03 to solicit competitive bids from potential manufacturers and/or suppliers of zero emission, battery-electric commercial-grade lawn and garden equipment currently available for sale, including volume discounts that can be applied to the SCAQMD's Commercial Electric Lawn and Garden Equipment Incentive and Exchange Program. The participants of the Program will include local governments, school districts, nonprofit organizations and commercial gardeners located in environmental justice (EJ) communities. The Program will require each participant to scrap old, polluting commercial lawn and garden equipment and replace each item with zero emission, battery-electric lawn and garden equipment of the same type.

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>). CARB also distributed the PA to lawn and garden companies included in their database.

Bid Evaluation

A total of eight proposals were received by the December 15, 2017 solicitation deadline, as follows:

	COMPANY NAME
1.	American Green Zone Alliance (distributor of Greenworks products)
2.	Blount Inc., dba Oregon
3.	DeWalt
4.	Golden Eagle Distributing Corporation (distributor of ECHO products)
5.	Husqvarna Group
6.	Makita U.S.A., Inc.
7.	Mean Green Products LLC, dba Mean Green Mowers
8.	Pacific STIHL

All proposals were reviewed by an evaluation panel based on the criteria in the PA. Proposals were evaluated according to detailed product specifications, product availability, the best discounted price for each model being offered, supply commitment, product warranty and the number and location of service and distribution centers. The PA required a minimum of five service locations with at least one center located in each of the four counties served by the SCAQMD. DeWalt was deemed ineligible because it did not offer the required minimum number of customer service/distribution centers.

Based on the evaluation results, staff recommends the Board execute contracts with seven of the eight companies to assist the SCAQMD in the implementation of the

commercial electric lawn and garden equipment incentive and exchange program in EJ areas within the SCAQMD's jurisdiction.

The evaluation panel consisted of one Program Supervisor and one Sr. Public Affairs Manager from Science & Technology Advancement and one Air Resources Engineer from CARB. Of these three panelists, two were Caucasian and one was Hispanic; two males and one female.

Proposal

These actions are to execute contracts with commercial lawn and garden equipment manufacturers and suppliers in an amount not to exceed \$2,955,327 for implementation of a commercial electric lawn and garden incentive and exchange program in EJ areas, authorize the Executive Officer to amend amounts awarded to each contractor based on demand for the different equipment offered through the program, and reimburse the General Fund for administrative costs up to \$150,000 for implementation of a commercial lawn and garden equipment program.

The incentive funding will be used to reduce the purchase price of commercial electric lawn and garden equipment. The participants (local governments, school districts, nonprofit organizations and commercial gardeners) located in EJ communities will have the opportunity to select from a variety of available makes and models of commercial-grade electric lawn and garden equipment including handheld trimmers, chainsaws, pruners, backpack and handheld blowers, and lawnmowers including ride-on, stand-on and walk-behind mowers with a cutting width greater than 31 inches. As the participants have the choice to select from a variety equipment types, the actual number of lawn and garden equipment purchased through this incentive and exchange program will not be known until the Program is completed. Staff estimates that up to 5,600 pieces of old gasoline- or diesel-powered commercial lawn and garden equipment will be replaced with new battery-electric commercial lawn and garden equipment.

The Program will provide incentive funds to purchase the battery-powered lawn and garden equipment including the battery(s) and a charger. The Program will also offer stand-on and ride-on mowers with cutting widths of 48, 52 and 60 inches offered by Mean Green and Greenworks distributing companies. In addition, the Program will offer GPS-assisted robotic lawn mowers provided by the Husqvarna Group.

Each of the seven manufacturers/distributors will offer their qualifying commercial-grade, electric lawn and garden equipment at distribution centers located within the four counties that are included within the SCAQMD's jurisdiction. At these centers, the old lawn and garden equipment will be tested for operation and then drained of all fluids in a responsible manner and taken to a scrapping yard where the equipment will be permanently destroyed by a licensed dismantler. This format has been used for all prior commercial exchange programs administered by the SCAQMD and has worked well.

SCAQMD will share participant data with CARB, who has contracted with the California State University Fullerton to survey the participants. Based on the survey, an inventory of all scrapped and new equipment purchased by the participants will be developed to quantify the actual emissions reduced from this Program in EJ communities.

Tables 1 through 7 provide the proposed make and model of the qualifying lawn and garden equipment including the manufacturer's suggested retail price (MSRP), the discounted price offered to SCAQMD, the participant's cost and SCAQMD's incentive amount. There will be approximately 86 distribution centers throughout the four-county area.

Benefits to SCAQMD

The Program's primary objective is to reduce emissions of harmful criteria air pollutants by replacing gasoline- or diesel-powered lawn and garden equipment with zero emission equipment in areas of the SCAQMD jurisdiction that have been identified as EJ areas.

Resource Impacts

Total expenditures for the proposed program will not exceed \$2,955,327, comprised of \$2,327,250 from the 2016 U.S. EPA Targeted Air Shed Grant in the Advanced Technology, Outreach and Educational Fund (17) and \$628,077 from the Rule 2202 AQIP Special Revenue Fund (27).

Attachments

Table 1 – Price information of ECHO Products

Table 2 – Price information of Greenworks Products

Table 3 – Price information of Husqvarna Group Products

Table 4 – Price information of Makita U.S.A. Products

Table 5 – Price information of Mean Green Products

Table 6 – Price information of Oregon Products

Table 7 – Price information of Pacific STIHL Products

Table 1: Price InformationECHO Products 

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
Lawn mower, CLM-58V4AH, 58V4AH, 58VA	\$500	\$400	\$200	\$200
String trimmer, CST-58V2AH, 58V2AH, 58VA	\$250	\$200	\$100	\$100
Handheld blower, CPLB-58V2AH, 58V2AH, 58VA	\$230	\$184	\$92	\$92
Chain saw, CCS-58V4AH, 58V4AH, 58VA	\$300	\$240	\$120	\$120
Hedge Trimmer, CHT-58V2AH, 58V2AH, 58VA	\$300	\$240	\$120	\$120

Table 2: Price InformationGreenworks Products Life gets easier.™

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
82V, Greenworks axial Blower, GB500, GL400, GC400	\$427	\$363	\$182	\$182
82V, 500 CFM Greenworks axial blower, GB500, GL900, GC400	\$1,107	\$941	\$471	\$471
82V, 600 CFM Greenworks blower, GB600, GL900, GC400	\$1,107	\$941	\$471	\$471
82V, Greenworks string trimmer, GS160, GL400, GC400	\$487	\$414	\$207	\$207
82V, Greenworks string trimmer, GS160, GL900, GC400	\$1,167	\$992	\$496	\$496
82V, Greenworks hedge trimmer, GH260, GL250, GC400	\$417	\$355	\$178	\$178
82V, Greenworks hedge trimmer, GH260, GL500, GC400	\$557	\$474	\$237	\$237
82V, Greenworks extended pole saw, GS100, GL500, GC400	\$607	\$516	\$258	\$258
82V, Greenworks chainsaw, GS180, GL250, GC400	\$616	\$524	\$262	\$262
82V, Greenworks lawn mower, GM210, GL500, GC400	\$1,046	\$890	\$445	\$445
82V, Greenworks lawn mower, GM210, GL500, GC400	\$1,345	\$1,144	\$572	\$572
Greenworks 48" stand on mower, GZM 48S	\$18,000	\$15,300	\$7,650	\$7,650
Greenworks 60" ride on mower, GZM 60R	\$20,000	\$17,000	\$8,500	\$8,500

Table 3: Price Information

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
String trimmer, 536LiLX, QC500 & BLi300	\$800	\$640	\$320	\$320
Articulated hedge trimmer, 536LiHE3, QC500 & BLi300	\$900	\$720	\$360	\$360
Powered hedge trimmer, 536LiHD60x, QC500 & BLi300	\$900	\$720	\$360	\$360
Top handle chainsaw, T536LiXP, QC500 & BLi300	\$900	\$720	\$360	\$360
Leaf blower w/backpack battery, 536Li XP, QC500 & BLi300	\$1,400	\$1,120	\$560	\$560
Quiet leaf blower w/backpack battery, 540iBx, QC500 & BLi950x	\$1,500	\$1,200	\$600	\$600
Pole Saw, 536LiP4, QC500 & BLi300	\$900	\$720	\$360	\$360
Telescopic pole saw, 536LiPT5, QC500 & BLi300	\$1,000	\$800	\$400	\$400
Lawn Mower, LE121P, QC80 & BLi20	\$500	\$400	\$200	\$200
Lawn Mower, self-propelled, LE221R, QC80 & BLi20	\$600	\$480	\$240	\$240
Lawn Mower, robotic, 315	\$2,000	\$1,600	\$800	\$800
Lawn Mower, robotic, 415X	\$3,500	\$2,800	\$1,400	\$1,400

Table 4: Price Information

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
Handheld blower XBU02PT1, BL1850B, DC18RD	\$330	\$290	\$145	\$145
Chain saw, XCU03PT1, BL1850B, DC18RD	\$430	\$345	\$172.5	\$172.5
String Trimmer, XRU09PT, BL1850B, DC18RD	\$370	\$315	\$157.5	\$157.5
Hedge Trimmer, XHU04PT, BL1850B, DC18RD	\$370	\$315	\$157.5	\$157.5

Table 5: Price Information**Mean Green Products**

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
Walk behind mower, WBX-33 Estate package	\$8,341	\$7,795	\$3,898	\$3,898
Walk behind mower, WBX-33 Contractor package	\$9,629	\$8,999	\$4,500	\$4,500
Walk behind mower, DWBX-48 Contractor package	\$13,370	\$12,495	\$6,248	\$6,248
Walk behind mower, DWBX-48 Industrial package	\$17,115	\$15,995	\$7,998	\$7,998
Walk behind mower, DWBX-52 Contractor package	\$13,857	\$12,950	\$6,475	\$6,475
Walk behind mower, DWBX-52 Industrial package	\$17,602	\$16,450	\$8,225	\$8,225
Stand on Zero Turn mower, SK-48 Estate package	\$14,230	\$13,299	\$6,650	\$6,650
Stand on Zero Turn mower, SK-48 Contractor package	\$17,975	\$16,799	\$8,400	\$8,400
Ride on Zero Turn mower, CXR-52 Industrial package	\$20,329	\$18,999	\$9,500	\$9,500
Ride on Zero Turn mower, CXR-52 Industrial package	\$24,074	\$22,499	\$12,500	\$10,000
Ride on Zero Turn mower, CXR-60 Contractor package	\$20,864	\$19,499	\$9,750	\$9,750
Ride on Zero Turn mower, CXR-60 Industrial package	\$24,609	\$22,999	\$13,000	\$10,000

Table 6: Price Information**Oregon Products**

Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
Backpack blower, BL120V-NA, BX975, C1600	\$1,317	\$1,088	\$544	\$544
String trimmer w/backpack battery, ST120VX, BX975, C1600	\$1,385	\$1,142	\$571	\$571
Hedge trimmer w/backpack battery, EHT120VX, BX650, C1600	\$1,225	\$1,004	\$502	\$502
Edger w/backpack battery, EG120VX, BX650, C1600	\$1,185	\$972	\$486	\$486

Table 7: Price Information

Pacific STIHL Products



Equipment, Battery, Charger (bundle)	MSRP	Discounted Price	Participant Cost	SCAQMD Incentive
Blower, BGA 85, AP 300 battery, AL300 charger	\$500	\$410	205	205
Blower, BGA 100, AR 2000 backpack battery, AL 300 charger	\$1,340	\$1,000	500	500
Blower, BGA 100, AR 3000 backpack battery, AL 300 charger	\$1,390	\$1,080	540	540
Grass Trimmer, FSA 90 R, AP 300 battery, AL 300 charger	\$570	\$450	225	225
Hedge Trimmer, HLA 65, AP 300 battery, AL 300 charger	\$600	\$510	255	255
Hedge Trimmer , HLA 85, AP 300 battery, AL 300 charger	\$670	\$655	328	328
Hedge Trimmer, HSA 66, AP 300 battery, AL 300 charger	\$490	\$400	200	200
Pole Pruner , HTA 65, AP 300 battery, AL 300 charger	\$664	\$500	250	250
Telescoping Pole Pruner , HTA 85, AP 300 battery, AL 300 charger	\$764	\$650	325	325
Chain saw, MSA 160, AP 300 battery, AL 300 charger	\$584	\$450	225	225
Chain saw, MSA 200, AP 300 battery, AL 300 charger	\$604	\$550	275	275
Lawn mower, RMA 510 w/catcher, AP 300 battery, AL 300 charger	\$580	\$480	240	240

Agenda Item 1

Vasken Yardemian

Execute Contracts to Conduct Commercial
Electric Lawn and Garden Equipment Exchange
Program in EJ Areas and Reimburse General
Fund for Administrative Costs

Background

- In October 2017, the Board recognized \$2,477,250 from U.S. EPA's 2016 Targeted Air Shed Grant Program
- Also, in October 2017, the Board issued a PA to solicit proposals from manufacturers/suppliers of commercial-grade, electric lawn and garden equipment
 - Program will provide a financial incentive to local governments, school districts, nonprofit organizations and commercial gardeners located in EJ communities
 - PA closed on December 15, 2017

Solicitation Results

8 proposals received:

- AGZA (Greenworks distributor)
- Blount Inc., dba Oregon
- DeWalt
- Golden Eagle Distributing Corporation (ECHO distributor)
- Husqvarna Group
- Makita U.S.A.
- Mean Green Products
- Pacific STIHL



Husqvarna robotic lawn mower



Mean Green stand-on zero turn mower



Makita chainsaw with batteries and charger

Bid Evaluation

- Proposals reviewed by an evaluation panel including CARB and SCAQMD staff
- Recommend awards to 7 of the 8 proposers
- One proposal was deemed ineligible because it did not offer the required minimum number of customer service/distribution centers

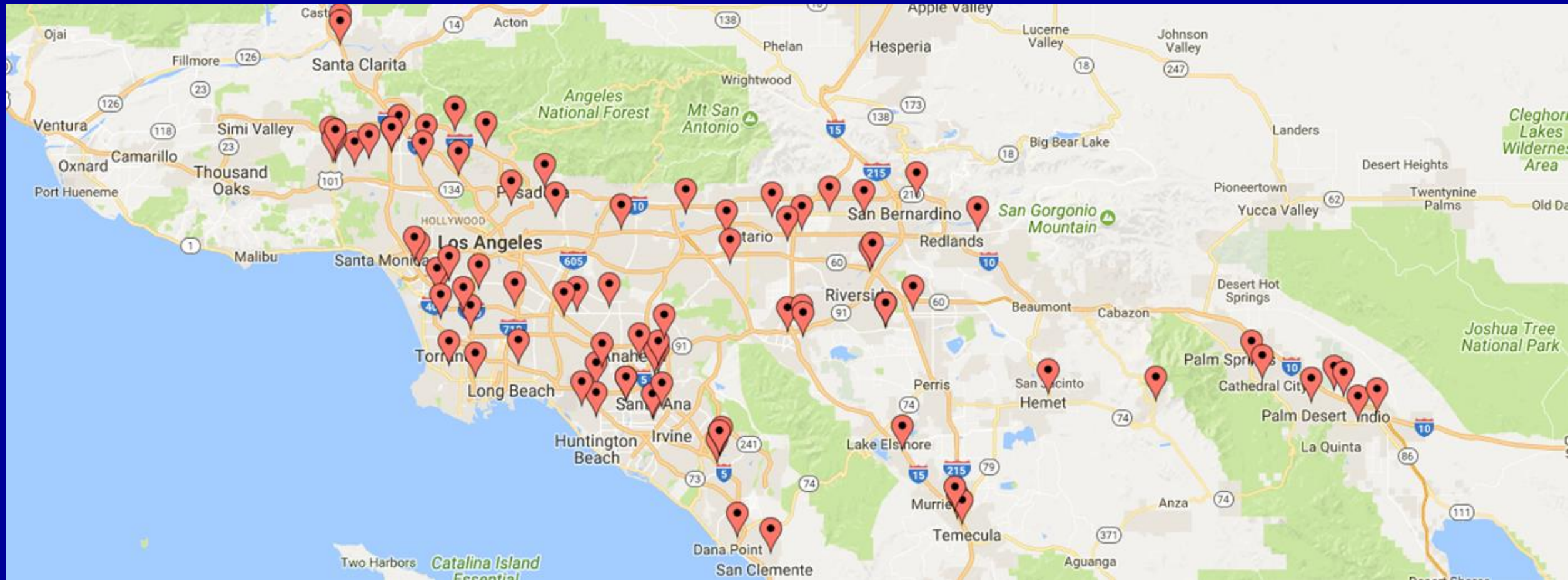
Commercial Electric Lawn and Garden Equipment Exchange Program

- Replace up to 5,600 pieces of old gasoline or diesel-powered commercial lawn and garden equipment with new battery-electric models
- Program expected to start this summer and continue until funds are exhausted
- Participants have the choice of a variety of equipment types - handheld trimmers, chain saws, pruners, backpack and handheld blowers, and different types of lawn mowers

Commercial Electric Lawn and Garden Equipment Exchange Program

- Manufacturers will have distribution centers located within the four counties to exchange the pieces of equipment
- Old lawn and garden equipment will be tested for operation, drained of all fluids and permanently destroyed by a licensed dismantler
- SCAQMD will share participant data with CARB, who contracted with CSU Fullerton to survey the participants and quantify the actual emissions reduced from the Program

86 Distribution Centers



Commercial Electric Lawn and Garden Equipment Exchange Program (Example)

- STIHL leaf blower with backpack battery and a charger
- MSRP = \$1,390
- Discounted price = \$1,080
- Participant cost = \$540
- SCAQMD incentive = \$540



Commercial Electric Lawn and Garden Equipment Exchange Program (Example)

- Mean Green 60-inch ride-on mower with battery and charger
- MSRP = \$20,864
- Discounted price = \$19,500
- Participant cost = \$9,750
- SCAQMDp incentive = \$9,750



Recommended Actions

Awarding seven contracts with:

- American Green Zone Alliance (AGZA) in an amount not to exceed \$589,725
- Blount Inc. dba Oregon in an amount not to exceed \$427,900
- Golden Eagle Distributing Corporation in an amount not to exceed \$65,397
- Husqvarna Group in an amount not to exceed \$493,000
- Makita U.S.A., Inc. in an amount not to exceed \$77,750
- Mean Green Products, Inc. in an amount not to exceed \$880,180
- Pacific STIHL in an amount not to exceed \$421,375

Recommended Actions (cont'd)

- Execute the seven vendor contracts in an amount not to exceed a total of \$2,955,327, comprised of:
 - \$2,327,250 from U.S. EPA Targeted Air Shed Program (in Fund 17) and
 - \$628,077 from the Rule 2202 AQIP Special Revenue Fund (27)
- Authorize the EO to amend contracts with the awardees to move funding amongst the contractors based on demand
- Reimburse General Fund up to \$150,000 for administrative costs

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DRAFT
Technology Committee Agenda #2

BOARD MEETING DATE: April 6, 2018

AGENDA NO.

PROPOSAL: Recognize Revenue to Replace School and Shuttle Buses and Execute Contract for Battery Electric Shuttle Bus Replacement Project and Reimburse General Fund for Administrative Costs

SYNOPSIS: In January 2018, U.S. EPA notified SCAQMD that two awards had been approved under a FY 2017 Targeted Air Shed Grant solicitation in the amount of \$3,184,875 each to replace diesel school buses with near-zero emission CNG buses and to replace diesel and gasoline airport shuttle buses with zero emission battery electric buses. Additionally, Phoenix Motorcars, an electric vehicle manufacturer, is committed to providing significant cost-share and securing additional funds from CARB's Hybrid and Zero Emission Truck and Bus Voucher Incentive Project to cofund the shuttle bus replacement project. This action is to recognize revenue up to \$6,369,750 from U.S. EPA into the Clean Fuels Program Fund (31). These actions are to also execute a contract with Phoenix Motorcars for battery electric shuttle bus replacements in an amount not to exceed \$3,122,426 and reimburse the General Fund for administrative costs up to \$62,449 to implement the shuttle bus replacement project. School bus replacement awards under the school bus replacement project will be considered by the Board separately.

COMMITTEE: Technology, March 16, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue, upon receipt, up to \$3,184,875 for the Near-Zero Emission School Bus Replacement Project and up to \$3,184,875 for the Zero Emission Battery Electric Shuttle Bus Replacement Project from U.S. EPA in FY 2017 Targeted Air Shed Grant funds into the Clean Fuels Fund (31) ;
2. Authorize the Executive Officer to execute a contract with Phoenix Cars LLC, dba Phoenix Motorcars, for the Targeted Air Shed Grant shuttle bus replacement project in an amount not to exceed \$3,122,426 from the Clean Fuels Program Fund (31); and

3. Reimburse the General Fund up to \$62,449 from the Clean Fuels Program Fund (31) for administrative costs necessary to implement the Targeted Air Shed Grant shuttle bus replacement project.

Wayne Natri
Executive Officer

MMM:FM:NB:AAO

Background

The 2016 AQMP identifies the need for NOx emission reductions as the most significant air quality challenge in meeting the upcoming ozone standard deadlines. School and airport shuttle buses are a major contributor to NOx emissions in the Basin. Significant increases in NOx, PM and greenhouse gases emissions from airport shuttle buses are expected because airline passenger transportation and expansion of operations at various commercial airports are projected to increase in the near future. A proven emission control strategy to reduce NOx and PM emissions and associated public health risks is to accelerate replacement of older buses with either battery electric or near-zero emission CNG buses. Consequently, staff has been working with Phoenix Motorcars, an electric vehicle manufacturer, to accelerate the development and deployment of battery electric shuttle buses. Phoenix Motorcars has made significant progress deploying over 36 battery electric shuttle buses operating at the Los Angeles World Airport and Ontario Airport for over two years and is committed to seeking funds from CARB's Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP) for battery electric shuttle bus replacement projects.

In October 2017, staff applied for funding under U.S. EPA's FY 2017 Targeted Air Shed Grant Program for near-zero CNG school bus and battery electric shuttle bus replacement projects. The application identified Phoenix Motorcars as the supplier of the zero-emission airport shuttles. In January 2018, U.S. EPA informed staff that these two proposals were approved for an award of \$3,184,875 each under the FY 2017 Targeted Air Shed Grant Program.

Proposal

This project is to replace 29 diesel and gasoline airport shuttle buses with new battery electric buses manufactured by Phoenix Motorcars. The new electric buses are equipped with state-of-the-art electric drivetrain technology that delivers up to 100 miles range on a single charge. Combined with dual charging capability, the buses are well suited to meet the requirements of most fleets operating on a fixed route within close proximity of the airport. As part of the eligibility requirement, staff will inspect existing shuttle buses for operability and drivability before the buses can be replaced with battery electric buses. Upon successful inspection and replacement of the existing

buses, Phoenix Motorcars will be required to destroy or render the existing buses useless without cannibalizing any parts from the old engines. In addition, staff will confirm that each replaced bus and its engine have been destroyed by an authorized scrap yard. Phoenix Motorcars will submit quarterly and annual reports during the project.

These actions are to recognize revenue up to \$6,369,750 from U.S. EPA into the Clean Fuels Program Fund (31), execute a contract with Phoenix Cars LLC, dba Phoenix Motorcars, for battery electric shuttle bus replacements in an amount not to exceed \$3,122,426 from the Clean Fuels Program Fund (31), and reimburse the General Fund for administrative costs up to \$62,449 to implement the Targeted Air Shed Grant shuttle bus replacement project from the Clean Fuels Program Fund (31). The remaining balance of \$3,184,875 for the Targeted Air Shed Grant school bus replacement project will be considered separately by the Board in May.

Sole Source Justification

Section VIII.B.3 of the Procurement Policy and Procedure identifies four major provisions under which contracts funded in whole or in part with federal funds may be made as a sole source award. 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

Successful implementation of the battery electric shuttle bus replacement project will provide reductions of NOx, PM and GHG emissions. The shuttle buses funded under this program are expected to operate for many years providing long-term emission reduction benefits. The proposed project is included in the *Technology Advancement Office Clean Fuels Program 2018 Plan Update* under the category “Electric/Hybrid Technologies and Infrastructure.”

Resource Impacts

The two U.S. EPA FY 2017 Targeted Air Shed Grant awards totaling \$6,369,750 will be recognized into the Clean Fuels Program Fund (31) for the school bus and the shuttle bus replacement projects. Of the \$6,369,750 award, \$3,184,875 (comprised of \$3,122,426 for projects and \$62,449 for administrative costs) is for the Zero Emission Battery Electric Shuttle Bus Replacement Project. The remaining funds of \$3,184,875 is for the Near-Zero Emission School Bus Replacement Project to be considered separately by the Board in May. The contract with Phoenix Motorcars will be executed upon receipt of the approved U.S. EPA grant agreement, up to the amount of the available funds awarded but not to exceed \$3,122,426.

Phoenix Motorcars is committed to providing a total of \$3,349,254 in cost-share, comprised of \$705,904 in in-kind contributions and \$2,643,350 in cash contributions

anticipated from the CARB's HVIP. The proposed project budget is \$6,534,129, as follows:

Funding Source	Funding Amount	Percent
U.S. EPA	\$3,184,875	49
Phoenix Motorcars	\$3,349,254	51
Total	\$6,534,129	100

Agenda Item #2

Adewale Oshinuga

Recognize Revenue to Replace School and Shuttle Buses and Execute Contract for Battery Electric Shuttle Bus Replacement Project and Reimburse General Fund for Administrative Costs

Background

- School and airport shuttle buses contribute significantly to NOx and PM emissions
- Near-zero CNG and battery electric buses are now available
- Two U.S. EPA grants awarded totaling \$6,369,750:
 - \$3,184,875 for battery electric shuttle bus replacement projects
 - \$3,184,875 for near-zero CNG school bus replacement projects¹



¹To be considered by the Board in May as part of Lower-Emission School Bus Replacement Program

Background (cont'd)

Staff is working with Phoenix Motorcars to produce and deploy battery electric buses

- Phoenix Motorcars manufactures electric vehicles
- Deployed over 36 battery electric shuttle buses
- Committed to seeking HVIP funds for electric bus replacement projects



Proposal

- Recognize U.S. EPA 2017 Targeted Air Shed funds
- Implement up to 29 diesel and gasoline shuttle bus replacements
 - Inspect existing buses for drivability and operability tests
 - Procure new battery electric shuttle buses
 - Scrap existing buses
 - Reimburse fleets up to \$98,850 per bus and \$270,000 for infrastructure
- Provide service to local airports



Proposed Project Costs

Funding Source	Funding Amount	Percent
U.S. EPA	\$3,184,875	49
Phoenix Motorcars	\$705,904	11
HVIP	\$2,643,350	40
Total	\$6,534,129	100

Recommended Actions

- Recognize revenue from U.S. EPA FY 2017 Targeted Air Shed Grant funds into the Clean Fuels Fund (31)
 - up to \$3,184,875 for a near-zero emission school bus replacement project and
 - up to \$3,184,875 for a zero emission battery electric shuttle bus replacement project
- Authorize the Executive Officer to execute a contract with Phoenix Motorcars for battery electric shuttle bus replacement projects at a cost not to exceed \$3,122,426
- Reimburse the General Fund up to \$62,449 for administrative costs necessary to implement the shuttle bus replacement project

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DRAFT
Technology Committee Agenda #3

BOARD MEETING DATE: April 6, 2018

AGENDA NO.

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

SYNOPSIS: CARB is executing Supplemental Environmental Project (SEP) agreements with Western Power Sports, Inc., C.J.J. Farming, JEGS Foundation and Tesoro Companies, Inc., to install and maintain air filtration systems in the South Coast region, with SCAQMD acting as the SEP Implementer. These actions are to recognize up to \$551,875 into the Air Filtration Fund (75), transfer up to \$462,625 as a temporary loan from Clean Fuels Fund (31) to the Air Filtration Fund (75) for the SEP revenue not yet received and execute agreements with the four entities. These actions are to also execute one or more contracts with IQAir North America for installation of air filtration systems in an amount cumulatively not to exceed \$524,282, reimburse the General Fund for administrative costs up to \$27,593 and amend contract(s) with IQAir to provide funding from unspent administrative fees for the purchase of replacement filters. Finally, this action is to authorize the Executive Officer to execute or amend agreements with local school districts, providing access to schools for the purpose of implementing SEP agreements.

COMMITTEE: Technology, March 16, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue, upon receipt, into the Air Filtration Fund (75) as follows:
 - a. Up to \$64,250 from Western Power Sports, Inc.;
 - b. Up to \$25,000 from C.J.J. Farming;
 - c. Up to \$425,125 from JEGS Foundation; and
 - d. Up to \$37,500 from Tesoro Companies, Inc.
2. Transfer up to \$462,625 as a temporary loan from the Clean Fuels Fund (31) into the Air Filtration Fund (75) until all SEP revenue is received.

3. Authorize the Executive Officer to execute agreements with the following for SCAQMD to act as the SEP Implementer for installation and maintenance of air filtration systems:
 - a. Western Power Sports, Inc.;
 - b. C.J.J. Farming;
 - c. JEGS Foundation; and
 - d. Tesoro Companies, Inc.
4. Authorize the Executive Officer to execute or amend agreements with local school districts, providing access to schools for the purpose of implementing SEP agreements.
5. Authorize the Chairman to execute one or more contracts with IQAir North America for installation and maintenance of air filtration systems at one or more schools in an amount cumulatively not to exceed \$524,282 from the Air Filtration Fund (75).
6. Reimburse the General Fund from the Air Filtration Fund (75) for administrative costs up to \$27,593, as needed, to implement the air filtration projects.
7. Authorize the Chairman to amend, as needed, one or more contracts with IQAir North America which are funded by an Air Filtration SEP agreement and approved by this Board Letter or Board Letters dated March 3, July 7 and October 6, 2017, for the purpose of purchasing additional filters using unspent administrative funds from the SEP.

Wayne Nastri
Executive Officer

MMM:FM:NB:PSK

Background

CARB is executing Supplemental Environmental Project (SEP) agreements with Western Power Sports, Inc., C.J.J. Farming, JEGS Foundation and Tesoro Companies, Inc., to install and maintain air filtration systems at one or more schools in Environmental Justice (EJ) communities. All parties have requested SCAQMD act as the SEP Implementer for these projects, which must be completed by December 2019.

IQAir North America was previously selected through two separate competitive bid processes in 2011 and 2013 for air filtration projects, and staff performed a technology status check to ensure no new technologies had come on the market. Furthermore, IQAir was the only qualified manufacturer of high performance panel filters and stand-alone units to meet the performance standards in SCAQMD's 2009 air filtration pilot study as well as through a national testing opportunity conducted by the University of California Riverside CE-CERT at Sunnyslope Elementary School in 2010. To date, through its contractor IQAir, SCAQMD has installed air filtration systems at 71 schools

and a community center. Performance standards from SCAQMD's air filtration pilot study include an average removal efficiency of at least 85 percent for ultrafine PM, black carbon and PM_{2.5}, and noise level below 45 decibels for stand-alone units.

Proposal

CARB staff have requested that schools receiving air filtration systems be in EJ communities or other areas disproportionately impacted by diesel PM and that project completion must occur by December 2019.

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

Date	Event
April 2018	Board Approval
June 2018	Anticipated Execution of Contracts
April - December 2018	Selection of School(s), Site Assessments
June 2018 – December 2019	Installation
December 2019	Final Report

This action is to recognize up to \$64,250 from Western Power Sports, Inc., \$25,000 from C.J.J. Farming, \$425,125 from JEGS Foundation and \$37,500 from Tesoro Companies, Inc., into the Air Filtration Fund (75). These actions are to also transfer \$462,625 as a temporary loan from the Clean Fuels Fund (31) to the Air Filtration Fund (75) until all SEP revenue is received and authorize the Executive Officer to execute agreements with Western Power Sports, Inc., C.J.J. Farming, JEGS Foundation and Tesoro Companies, Inc., for SCAQMD to act as the SEP Implementer for installation and maintenance of air filtration systems.

In addition, these actions are to execute one or more contracts with IQAir North America for installation and maintenance of air filtration systems in an amount cumulatively not to exceed \$524,282, reimburse the General Fund for administrative costs up to \$27,593 from the Air Filtration Fund (75), and authorize the Executive Officer to execute or amend agreements with local school districts, providing access to schools for the purpose of implementing SEP agreements.

Finally, these actions are to amend, as needed, one or more contracts with IQAir which are funded by an Air Filtration SEP agreement and approved by this Board Letter or Board Letters dated March 3, July 7 and October 6, 2017, for the specific purpose of purchasing additional filters using unspent administrative funds from the SEP. The SEP agreements that SCAQMD have entered into have included a provision for a 5% administrative fee which SCAQMD has received as part of the total payment for acting as the SEP Implementer. The General Fund is reimbursed for administrative costs based on actual expenses, and staff is requesting that any unused portion of the

administrative fee for a SEP be used to purchase additional replacement filters for those schools involved in the SEP.

Sole Source Justification

Section VIII. B. 2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.c(1): The desired services are available from only the sole-source based upon the unique experience and capabilities of the proposed contractor or contractor team. IQAir is the only manufacturer of high performance panel filters and stand-alone units identified by SCAQMD and CARB staff that meet the performance standards in SCAQMD's 2009 air filtration pilot study. Staff has also consulted with CARB staff to confirm that no new manufacturers of air filtration technologies that meet or exceed the performance standards in the pilot study have been identified since the last RFP process in 2013.

Benefits to SCAQMD

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

Resource Impacts

Upon receipt, up to \$551,875 from SEP revenue will be recognized into the Air Filtration Fund (75). Since SEP revenue of \$89,250 has already been received from Western Power Sports, Inc., and C.J.J. Farming, up to \$462,625 will be used as a temporary loan from the Clean Fuels Fund (31) until the remaining SEP revenue has been received. Of the \$551,875 in SEP revenue, the contracts with IQAir North America to install and maintain air filtration systems will not cumulatively exceed \$524,282 and reimbursement of administrative costs will not exceed \$27,593. Contract amendments with IQAir will not exceed the amount of any unspent administrative fees.

Agenda Item #3

Patricia Kwon

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

Background

- CARB executing Supplemental Environmental Projects (SEPs) to install air filtration systems at schools with Western Power Sports, Inc., C.J.J. Farming, JEGS Foundation and Tesoro Companies, Inc.
- SCAQMD as SEP implementer based on previous project experience



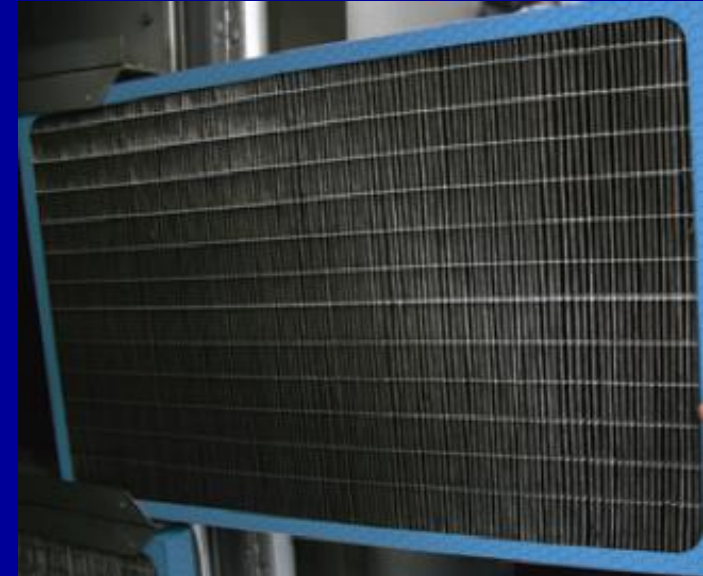
Background (cont'd)

- Staff recommends IQAir as air filtration contractor
 - Two prior competitive bid processes
 - National testing opportunity
 - Worked with CARB to conduct recent technology review
- SCAQMD/CARB staff not aware of another technology meeting performance standards of pilot study



Air Filtration Technologies

- High performance panel filters + stand alone units
- 90% average removal efficiency ultrafine PM, black carbon
- Noise level below 45 dB(A) for stand-alone units (no interference with classroom learning)



Proposal

- SCAQMD as SEP implementer – execute MOAs with
 - Western Power Sports, Inc.
 - C.J.J. Farming
 - JEGS Foundation
 - Tesoro Companies, Inc.
- Identify school(s) – in EJ or disadvantaged communities near or around the LA ports
- Work with contractor
 - Installation
 - Operational/maintenance needs, including replacement filters

Proposed Schedule

Date	Task
April 2018	Board approval
June 2018	Anticipated contract awards
April–Dec 2018	School selection, site assessments
June 2018–Dec 2019	Installation
Dec 2019	Final report

Recommended Actions

- Recognize revenue into the Air Filtration Fund (75)
 - Up to \$64,250 from Western Power Sports, Inc.
 - Up to \$25,000 from C.J.J. Farming
 - Up to \$425,125 from JEGS Foundation and
 - Up to \$37,500 from Tesoro Companies, Inc.
- Transfer up to \$462,625 as temporary loan from Clean Fuels Fund (31) into Air Filtration Fund (75)
- Authorize Executive Officer to execute agreements with the above entities and to execute or amend agreements with local school districts for the purpose of implementing SEP agreements

Recommended Actions (cont'd)

- Execute one or more contracts with IQAir for installation and maintenance of air filtration systems in amount not to exceed \$524,282 from Air Filtration Fund (75)
- Reimburse the General Fund for administrative costs up to \$27,593 to implement air filtration projects
- Amend, as needed, one or more contracts with IQAir North America which are funded by an Air Filtration SEP agreement to purchase additional filters using unspent administrative funds