



**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

**April 20, 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**

**Hall of Administration
500 W. Temple Street
Room 493-A
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 3

MAY BOARD AGENDA ITEMS

- 1. Execute Contract to Develop and Certify Near-Zero Emission Propane Engine for On-Road Medium-Duty Vehicles (*Motion Requested*)**

Joseph Lopat
AQ Specialist

The SCAQMD helped to develop near-zero emission CNG engines that are 90% cleaner than the current heavy-duty engine standard, and those engines are now available in the market. There is a need, however, to develop and certify near-zero engines for medium-duty vehicles. Roush CleanTech proposes to modify an existing Ford 6.8-liter propane engine to achieve certification at near-zero NOx for use in Type C school buses

and cutaway trucks and vans. This action is to execute a contract with Roush CleanTech to develop, demonstrate and certify a 6.8-liter near-zero emission propane engine in an amount not to exceed \$488,750 from the Clean Fuels Fund (31).

2. Approve Awards for Alternative Fuel School Bus Replacement Program (*Motion Requested*)

Vasken
Yardemian
Program
Supervisor

On October 6, 2017, the Board issued a Program Announcement to solicit applications for replacement of pre-1994 diesel school buses with alternative fuel school buses. Subsequently, on April 6, 2018, the Board recognized \$3,184,875 from U.S. EPA's 2017 Targeted Air Shed Grant Program to replace diesel school buses with near-zero emission CNG buses. This action is to approve awards to replace pre-1994 diesel school buses with new, near-zero or optional low NOx alternative fuel buses in an amount not to exceed \$35,638,000, comprised of \$32,533,300 from the Carl Moyer Program AB 923 Special Revenue Fund (80) and \$3,104,700 from U.S. EPA's 2017 Targeted Air Shed Grant in the Clean Fuels Program Fund (31). This action is to also reimburse the General Fund for administrative costs up to \$80,000 for implementation of these school bus replacements.

3. Establish Special Revenue Fund, Recognize AB 134 Grant Revenue, Transfer, Appropriate, Redistribute Funds, and Execute Contracts (*Motion Requested*)

Sujata Jain
Assistant
Deputy
Executive
Officer

The Board has previously recognized AB 134 revenue up to \$107.5 million from CARB into the Carl Moyer Program Fund (32); approved "Year 19" Carl Moyer Program awards from Fund 32 that include AB 134 revenues; and allowed a temporary loan up to \$51,701,413 from Carl Moyer Program AB 923 Fund (80) into Fund 32 until receipt of AB 134 revenue. To facilitate program tracking and auditing, this action is to instead 1) establish the Community Air Protection AB 134 Fund (77) and recognize CARB AB 134 grant funds into Fund 77 instead of Fund 32; 2) allow a temporary loan from Fund 80 into Fund 77 instead of Fund 32; 3) authorize the Chairman to execute contracts in an amount not to exceed \$51,701,413, as approved by the Board in November 2017, from Fund 77 instead of Fund 32; and 4) revise other previously approved transactions with AB 134 funding from the newly established Fund 77.

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, May 18, 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 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 7:30 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: May 4, 2018

AGENDA NO.

PROPOSAL: Execute Contract to Develop and Certify Near-Zero Emission Propane Engine for On-Road Medium-Duty Vehicles

SYNOPSIS: The SCAQMD helped to develop near-zero emission CNG engines that are 90% cleaner than the current heavy-duty engine standard, and those engines are now available in the market. There is a need, however, to develop and certify near-zero engines for medium-duty vehicles. Roush CleanTech proposes to modify an existing Ford 6.8-liter propane engine to achieve certification at near-zero NOx for use in Type C school buses and cutaway trucks and vans. This action is to execute a contract with Roush CleanTech to develop, demonstrate and certify a 6.8-liter near-zero emission propane engine in an amount not to exceed \$488,750 from the Clean Fuels Program Fund (31).

COMMITTEE: Technology, April 20, 2018; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with Roush CleanTech for the development, demonstration and certification of a 6.8-liter ultra-low emission propane fueled engine for on-road medium-duty vehicles in an amount not to exceed \$488,750 from the Clean Fuels Program Fund (31).

Wayne Natri
Executive Officer

MMM:FM:NB:JL

Background

The 2016 AQMP highlights the need to lower NOx emissions, which are precursors to ozone formation in the South Coast Air Basin (Basin). The SCAQMD helped develop near-zero emission CNG engines that are 90% cleaner than the current heavy-duty engine standard. Those natural gas engines have been certified and are commercially available and eligible for incentives through SCAQMD programs offering funding for buses and heavy-duty trucks. There is a need, however, to develop and certify near-zero

engines for medium-duty vehicles, such as Type C buses as well as cutaway trucks and vans. Propane powered engines are preferred by some school districts and fleets and others desiring options for turning over their existing high emissions fleet vehicles to near-zero vehicles.

Proposal

This action is to execute a contract with Roush CleanTech to modify, demonstrate and certify a Ford 6.8-liter to achieve a near-zero NOx emission propane engine for use in on-road medium-duty vehicle applications. The project is intended to advance engine and aftertreatment technologies in the current 6.8-liter propane engine classification to achieve NOx emission levels that are at least 90% lower than 2010 engine emission certification standards. Roush CleanTech will be required to conduct engine and aftertreatment development tasks to achieve the ultra-low emissions target and perform validation and durability testing to confirm the robustness of their technology pathway. 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 Basin. The use of vocational specific test cycles will provide additional insight towards the engine's real-life emission reduction potential. The project will ultimately conclude with the engine being integrated into on-road heavy-duty chassis and placed in commercial service to fully validate its performance and viability.

Benefits to SCAQMD

Projects to support near-zero emissions are included in the *Technology Advancement office Clean Fuels Program 2018 Plan Update* under the category Engine Systems. Near-zero NOx propane engines will lead to further technology pathways in the advancement of near-zero NOx natural gas engines for medium-duty vehicles. Furthermore, this will expand the number of engine offerings for SCAQMD incentive programs, which will contribute toward lower emissions, particularly in environmental justice communities.

Sole Source Justification

Section VIII.B.1 of the Procurement Policy and Procedure identifies provisions by which sole source awards may be justified. This request for a sole source award is made under provision B.2.c.: The desired services are available from only the sole-source based upon one or more of the following reasons: B.2.c.(1): The unique experience and capabilities of the proposed contractor or contractor team; B.2.c.(2): The project involves the use of proprietary technology; and B.2.c.(3): The contractor has ownership of key assets required for project performance. The contractor has significant investment as a manufacturer with over 40 years of experience. As a certified Ford Qualified Vehicle Manufacturer in alternative fuels and proven capability to develop and certify these Ford engines, Roush CleanTech provides a product with emission reductions and fueling options for medium-duty vehicles.

Resource Impacts

SCAQMD's cost-share from the Clean Fuels Program Fund (31) will not exceed \$488,750. The estimated total project costs are \$1,955,000, as summarized below:

Proposed Project Cost-Share

Funding Source	Funding Amount	% of Project
Roush CleanTech	\$1,466,250	75
SCAQMD (<i>requested</i>)	\$488,750	25
Total	\$1,955,000	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 #1

Joseph Lopat

Execute Contract to Develop and Certify
Near-Zero Emission Propane Engine for
On-Road Medium-Duty Vehicles

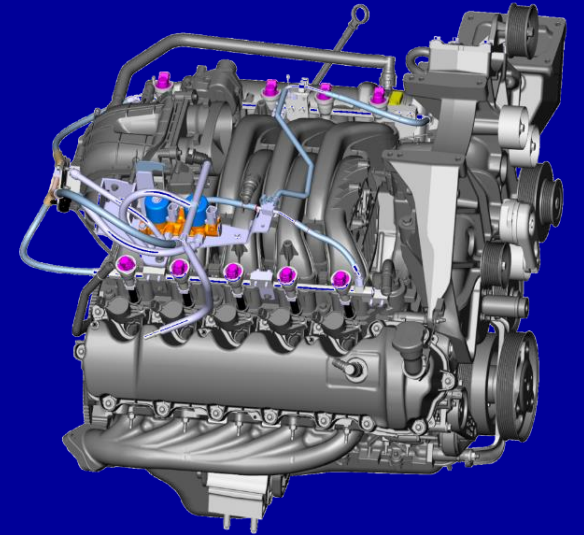
Background

- 2016 AQMP highlights the need to lower NO_x
- Heavy-duty natural gas engines with emissions 90% lower than current standards are in production
- Additional 0.02 g/bhp-hr NO_x engines are needed for medium-duty platforms
 - Type C school buses
 - Cutaway trucks and vans



Proposal

- Roush CleanTech proposes to modify an existing Ford 6.8-liter propane engine to develop and achieve near-zero NOx levels:
 - New aftertreatment technology
 - Advanced controller software management
- Conduct emissions testing to verify and validate 0.02 g/bhp-hr NOx levels
- Certification anticipated by end of 2018
- Goal to achieve near-zero 6.8-liter propane engine for marketplace



Proposed Project Partners/Budget

Project Partner	Funding Amount	Percent
Roush CleanTech	\$1,466,250	75
SCAQMD (<i>requested</i>)	\$488,750	25
Total	\$1,955,000	100

Recommended Action

Execute contract with Roush CleanTech to develop and certify a near-zero emission propane engine for on-road medium-duty vehicles in an amount not to exceed \$488,750 from Clean Fuels Fund (31)

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DRAFT
Technology Committee Agenda #2

BOARD MEETING DATE: May 4, 2018

AGENDA NO.

PROPOSAL: Approve Awards for Alternative Fuel School Bus Replacement Program

SYNOPSIS: On October 6, 2017, the Board issued a Program Announcement to solicit applications for replacement of pre-1994 diesel school buses with alternative fuel school buses. Subsequently, on April 6, 2018, the Board recognized \$3,184,875 from U.S. EPA's 2017 Targeted Air Shed Grant Program to replace diesel school buses with near-zero emission CNG buses. This action is to approve awards to replace pre-1994 diesel school buses with new, near-zero or optional low NOx alternative fuel buses in an amount not to exceed \$35,638,000, comprised of \$32,533,300 from the Carl Moyer Program AB 923 Special Revenue Fund (80) and \$3,104,700 from U.S. EPA's 2017 Targeted Air Shed Grant in the Clean Fuels Program Fund (31). This action is to also reimburse the General Fund for administrative costs up to \$80,000 for implementation of these school bus replacements.

COMMITTEE: Technology, April 20, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute contracts with 42 public school districts, as listed in the attached table, to replace 206 pre-1994 diesel school buses with new, near-zero or optional low NOx alternative fuel buses and infrastructure totaling an amount not to exceed \$35,638,000, comprised of \$32,533,300 from the Carl Moyer Program AB 923 Special Revenue Fund (80) and \$3,104,700 from U.S. EPA's 2017 Targeted Air Shed Grant in the Clean Fuels Program Fund (31).
2. Reimburse the General Fund up to \$80,000 from the Clean Fuels Program Fund (31) for administrative costs necessary to implement the lower-emission school bus projects funded by the EPA 2017 Targeted Air Shed Grant.

Wayne Nastri
Executive Officer

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 3,400 newer diesel school buses with particulate traps.

On October 6, 2017 meeting, the Board issued a Program Announcement to solicit applications for replacement of pre-1994 diesel school buses with alternative fuel school buses. It was stated in the Program Announcement that in case of commercial availability at the time of awards, school buses certified at optional low NOx standard would be prioritized. Subsequently, on April 6, 2018, the Board recognized \$3,184,875 from U.S. EPA's 2017 Targeted Air Shed Grant Program into the Clean Fuels Program Fund (31) to replace diesel school buses with near-zero emission CNG 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

A total of 42 public school districts applied requesting 248 school buses. Staff recommends awards to all 42 school districts not exceeding 15 buses per school district. This would result in awarding a total of 206 school buses, with 38 school districts receiving all of their requested buses.

This action is to execute contracts with 42 public school districts for the replacement of 206 pre-1994 diesel school buses with new, near-zero or optional low NOx alternative fuel buses, as listed in the attached table, in an amount not to exceed \$35,638,000, comprised of \$32,533,300 from the Carl Moyer Program AB 923 Special Revenue Fund (80) and \$3,104,700 from U.S. EPA's 2017 Targeted Air Shed Grant in the Clean Fuels Program Fund (31).

The U.S. EPA Targeted Air Shed Grant targets the replacement of pre-1994 diesel school buses in disadvantaged communities or environmental justice areas with CNG buses certified to meet CARB's optional low NOx or near-zero emission standard.

Using CalEPA's CalEnviroScreen mapping tool, which helps identify disadvantaged communities in California, over 76 percent of the school districts that are proposed for replacement awards include disadvantaged communities.

This program will fund 115 Type D CNG school buses certified to meet the optional low NOx standard of 0.02 g/bhp-hr and 91 Type C propane school buses certified to meet the optional low NOx standard of 0.05 g/bhp-hr for a total of 206 replacements. The recommended awards provide up to \$192,000 for a Type D CNG bus and \$121,000 for a Type C propane bus, including sales tax. The school districts will be required to provide a minimum local match of \$15,000 per CNG bus and \$10,000 per propane bus. In addition, the award will include \$4,500 per bus for the optional fire suppressant system as well as fueling infrastructure funding up to \$14,000 per CNG and \$5,000 per propane bus for those school districts that have requested it. School districts will have to pay for any discretionary options they may choose to include on the bus. The diesel buses will be permanently destroyed by licensed dismantlers.

Benefits to SCAQMD

The successful implementation of the Lower-Emission School Bus Replacement Program will provide less polluting and safer transportation for school children and reduce public exposure to toxic diesel PM emissions. In addition, 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 Board.

Resource Impacts

Total funding for the recommended awards will not exceed \$35,638,000, comprised of \$32,533,300 from the Carl Moyer Program AB 923 Special Revenue Fund (80) and \$3,104,700 from U.S. EPA's 2017 Targeted Air Shed Grant in the Clean Fuels Program Fund (31). In addition, the General Fund will be reimbursed up to \$80,000 from the Clean Fuels Program Fund (31) for administrative costs necessary to implement the lower-emission school bus projects funded by the EPA Targeted Air Shed Grant.

Any of the schools listed in the attached table may opt to replace a pre-1994 diesel school bus with an electric, zero emission school bus but will only receive the amount of funding shown in the table.

Attachment

Table: Recommended Awards for Pre-1994 School Bus Replacements

Table: Recommended Awards for Pre-1994 School Bus Replacements

#PA2018-02 Applicant	County	Number of Buses	Fuel Type	School Match Minimum (\$15,000/CNG) (\$10,000/Propane)	U.S. EPA Funds	Bus Award AB 923 Funds (Up to \$192,000/ CNG & \$121,000/ Propane)	Fire Suppressant AB 923 Funds (\$4,500/bus)	Infrastructure AB 923 Funds (\$14,000/CNG \$5,000/Propane)	Total AB 923 Funds	Total Award
ABC USD	LA	3	CNG	\$45,000	\$117,900	\$458,100	\$13,500	\$42,000	\$513,600	\$631,500
Baldwin Park USD	LA	4	Propane	\$40,000	\$0	\$484,000	\$18,000	Not requested	\$502,000	\$502,000
Bellflower USD	LA	1	CNG	\$15,000	\$39,300	\$152,700	\$4,500	\$14,000	\$171,200	\$210,500
Downey USD	LA	4	CNG	\$60,000	\$157,200	\$610,800	\$18,000	\$56,000	\$684,800	\$842,000
Inglewood USD	LA	4	Propane	\$40,000	\$0	\$484,000	\$18,000	\$20,000	\$522,000	\$522,000
Newhall SD	LA	1	Propane	\$10,000	\$0	\$121,000	\$4,500	Not requested	\$125,500	\$125,500
Pupil Transportation Coop.	LA	5	CNG	\$75,000	\$196,500	\$763,500	\$22,500	\$70,000	\$856,000	\$1,052,500
Rowland USD	LA	3	CNG	\$45,000	\$117,900	\$458,100	\$13,500	Not requested	\$471,600	\$589,500
Rowland USD	LA	1	Propane	\$10,000	\$0	\$121,000	\$4,500	Not requested	\$125,500	\$125,500
Saugus USD	LA	2	Propane	\$20,000	\$0	\$242,000	\$9,000	Not requested	\$251,000	\$251,000
Sulphur Springs USD	LA	3	Propane	\$30,000	\$0	\$363,000	\$13,500	Not requested	\$376,500	\$376,500
Walnut Valley USD	LA	4	CNG	\$60,000	\$0	\$768,000	\$18,000	\$56,000	\$842,000	\$842,000
West Covina USD	LA	1	Propane	\$10,000	\$0	\$121,000	\$4,500	Not requested	\$125,500	\$125,500
Total Los Angeles County		36		\$460,000	\$628,800	\$5,147,200	\$162,000	\$258,000	\$5,567,200	\$6,196,000
Anaheim Elementary SD	OR	9	Propane	\$90,000	\$0	\$1,089,000	\$40,500	\$45,000	\$1,174,500	\$1,174,500
Anaheim Union HSD	OR	15	Propane	\$150,000	\$0	\$1,815,000	\$67,500	\$75,000	\$1,957,500	\$1,957,500
Capistrano USD	OR	15	CNG	\$225,000	\$0	\$2,880,000	\$67,500	\$210,000	\$3,157,500	\$3,157,500
Cypress SD	OR	1	CNG	\$15,000	\$39,300	\$152,700	\$4,500	Not requested	\$157,200	\$196,500
Fountain Valley SD	OR	1	CNG	\$15,000	\$39,300	\$152,700	\$4,500	Not requested	\$157,200	\$196,500
Fullerton Joint Union HSD	OR	4	CNG	\$60,000	\$157,200	\$610,800	\$18,000	Not requested	\$628,800	\$786,000

#PA2018-02 Applicant	County	Number of Buses	Fuel Type	School Match Minimum (\$15,000/CNG) (\$10,000/Propane)	U.S. EPA Funds	Bus Award AB 923 Funds (Up to \$192,000/ CNG & \$121,000/ Propane)	Fire Suppressant AB 923 Funds (\$4,500/bus)	Infrastructure AB 923 Funds (\$14,000/CNG \$5,000/Propane)	Total AB 923 Funds	Total Award
Fullerton SD	OR	4	Propane	\$40,000	\$0	\$484,000	\$18,000	Not requested	\$502,000	\$502,000
Garden Grove USD	OR	15	Propane	\$150,000	\$0	\$1,815,000	\$67,500	\$75,000	\$1,957,500	1,957,500
Huntington Beach UHSD	OR	15	CNG	\$225,000	\$589,500	\$2,290,500	\$67,500	\$210,000	\$2,568,000	\$3,157,500
La Habra City SD	OR	1	Propane	\$10,000	\$0	\$121,000	\$4,500	Not requested	\$125,500	\$125,500
Los Alamitos USD	OR	4	CNG	\$60,000	\$0	\$768,000	\$18,000	\$56,000	\$842,000	\$842,000
Newport-Mesa USD	OR	6	CNG	\$90,000	\$0	\$1,152,000	\$27,000	Not requested	\$1,179,000	\$1,179,000
Ocean View SD	OR	10	Propane	\$100,000	\$0	\$1,210,000	\$45,000	\$50,000	\$1,305,000	\$1,305,000
Orange USD	OR	1	CNG	\$15,000	\$39,300	\$152,700	\$4,500	\$14,000	\$171,200	\$210,500
Placentia-Yorba Linda USD	OR	6	CNG	\$90,000	\$235,800	\$916,200	\$27,000	\$84,000	\$1,027,200	\$1,263,000
Savanna USD	OR	1	Propane	\$10,000	\$0	\$121,000	\$4,500	\$5,000	\$130,500	\$130,500
Westminster USD	OR	2	Propane	\$20,000	\$0	\$242,000	\$9,000	\$10,000	\$261,000	\$261,000
Total Orange County		110		\$1,365,000	\$1,100,400	\$15,972,600	\$495,000	\$834,000	\$17,301,600	\$18,402,000
Banning USD	RV	2	CNG	\$30,000	\$0	\$384,000	\$9,000	\$28,000	\$421,000	\$421,000
Beaumont USD	RV	3	CNG	\$45,000	\$0	\$576,000	\$13,500	\$42,000	\$631,500	\$631,500
Coachella Valley USD	RV	2	Propane	\$20,000	\$0	\$242,000	\$9,000	Not requested	\$251,000	\$251,000
Hemet USD	RV	5	CNG	\$75,000	\$196,500	\$763,500	\$22,500	\$70,000	\$856,000	\$1,052,500
Nuview Union SD	RV	5	Propane	\$50,000	\$0	\$605,000	\$22,500	\$25,000	\$652,500	\$652,500
San Jacinto USD	RV	2	CNG	\$30,000	\$78,600	\$305,400	\$9,000	\$28,000	\$342,400	\$421,000
Total Riverside County		19		\$250,000	\$275,100	\$2,875,900	\$85,500	\$193,000	\$3,154,400	\$3,429,500
Alta Loma SD	SB	2	CNG	\$30,000	\$78,600	\$305,400	\$9,000	Not requested	\$314,400	\$393,000
Bear Valley USD	SB	2	CNG	\$30,000	\$0	\$384,000	\$9,000	Not requested	\$393,000	\$393,000
Chaffey Joint Union HSD	SB	6	CNG	\$90,000	\$235,800	\$916,200	\$27,000	Not requested	\$943,200	\$1,179,000

#PA2018-02 Applicant	County	Number of Buses	Fuel Type	School Match Minimum (\$15,000/CNG) (\$10,000/Propane)	U.S. EPA Funds	Bus Award AB 923 Funds (Up to \$192,000/ CNG & \$121,000/ Propane)	Fire Suppressant AB 923 Funds (\$4,500/bus)	Infrastructure AB 923 Funds (\$14,000/CNG \$5,000/Propane)	Total AB 923 Funds	Total Award
Redlands USD	SB	11	Propane	\$110,000	\$0	\$1,331,000	\$49,500	\$55,000	\$1,435,500	\$1,435,500
Rialto USD	SB	13	CNG	\$195,000	\$510,900	\$1,985,100	\$58,500	\$182,000	\$2,225,600	\$2,736,500
Rim of the World USD	SB	3	CNG	\$45,000	\$117,900	\$458,100	\$13,500	\$42,000	\$513,600	\$631,500
Upland USD	SB	4	CNG	\$60,000	\$157,200	\$610,800	\$18,000	\$56,000	\$684,800	\$842,000
Total San Bernardino Co.		41		\$560,000	\$1,100,400	\$5,990,600	\$184,500	\$335,000	\$6,510,100	\$7,610,500
Total, all Applicants		206		\$2,635,000	\$3,104,700	\$29,986,300	\$927,000	\$1,620,000	\$32,533,300	\$35,638,000

Agenda Item #2

Vasken Yardemian

Approve Awards for Alternative Fuel
School Bus Replacement Program

Background

Since 2001, SCAQMD has awarded nearly \$280 million to:

- Replace over 1,600 highly polluting pre-1994 diesel school buses
- Retrofit over 3,400 school buses with diesel particulate traps



Background (cont'd)

- In October 2017, the Board issued a Program Announcement to solicit applications for replacement of pre-1994 diesel school bus with alternative fuel buses
- At April 2018 Board meeting, \$3,184,875 was recognized from U.S. EPA's 2017 Targeted Air Shed Grant Program for replacement of diesel school buses with near-zero emission CNG buses

Criteria for Awards

- Certification at optional low NOx standard prioritized in case of availability at the time of award
- U.S. EPA's 2017 Targeted Air Shed Grant Program
 - Type D, CNG school buses certified to meet optional low NOx standard (0.02 g/bhp-hr)
 - Target disadvantaged communities

Summary of Applications Received

- Program Announcement #PA2018-02 closed on January 4, 2018
- 42 public school districts applied
- 248 buses requested
 - 142 Type D, CNG school buses
 - 106 Type C, propane school buses

Proposed Funding

- Awards recommended to all 42 school districts that applied
- Maximum of 15 buses recommended per school
- Total of 206 school buses recommended for awards
 - 115 Type D CNG buses certified at 0.02 g/bhp-hr NOx
 - 91 Type C propane buses certified at 0.05 g/bhp-hr NOx



Funding Amounts per School Bus

- Type D CNG School Bus
 - School bus \$192,000
 - Fire suppressant \$ 4,500
 - Fueling Infrastructure \$ 14,000 (if requested)
- Type C propane School Bus
 - School bus \$121,000
 - Fire suppressant \$ 4,500
 - Fueling Infrastructure \$ 5,000 (if requested)
- Schools may opt to replace a bus with an electric, zero emission school bus with the same amount of funding recommended



Proposed Funding Distribution

County	No. of Schools	No. of Buses	US EPA Air Shed Grant	SCAQMD AB 923 Funds
Los Angeles	12	36	\$628,800	\$5,567,200
Orange	17	110	\$1,100,400	\$17,301,600
Riverside	6	19	\$275,100	\$3,154,400
San Bernardino	7	41	\$1,100,400	\$6,510,100
Total	42	206	\$3,104,700	\$32,533,300

Proposed Funding Distribution in Disadvantaged Communities

County	No. of Schools	No. of Buses	US EPA Air Shed Grant	SCAQMD AB 923 Funds
Los Angeles	8	26	\$628,800	\$3,972,200
Orange	14	85	\$1,100,400	\$12,123,100
Riverside	4	14	\$275,100	\$2,101,900
San Bernardino	6	39	\$1,100,400	\$6,117,100
Total	32	164	\$3,104,700	\$24,314,300
Percentage	76%	80%	100%	75%

Recommended Actions

- Execute contracts with 42 public school districts to replace 206 diesel school buses including infrastructure (if requested) in an amount not to exceed \$35,638,000, comprised of:
 - \$32,533,300 from the Carl Moyer Program AB 923 Fund (80)
 - \$3,104,700 from U.S. EPA Targeted Air Shed Grant in Clean Fuels Program Fund (31)
- Reimburse General Fund for admin costs up to \$80,000 from U.S. EPA Targeted Air Shed Grant

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DRAFT
Technology Committee Agenda #3

BOARD MEETING DATE: May 4, 2018

AGENDA NO.

PROPOSAL: Establish Special Revenue Fund, Recognize AB 134 Grant Revenue, Transfer, Appropriate, Redistribute Funds, and Execute Contracts

SYNOPSIS: The Board has previously recognized AB 134 revenue up to \$107.5 million from CARB into the Carl Moyer Program Fund (32); approved “Year 19” Carl Moyer Program awards from Fund 32 that include AB 134 revenues; and allowed a temporary loan up to \$51,701,413 from Carl Moyer Program AB 923 Fund (80) into Fund 32 until receipt of AB 134 revenue. To facilitate program tracking and auditing, this action is to instead 1) establish the Community Air Protection AB 134 Fund (77) and recognize CARB AB 134 grant funds into Fund 77 instead of Fund 32; 2) allow a temporary loan from Fund 80 into Fund 77 instead of Fund 32; 3) authorize the Chairman to execute contracts in an amount not to exceed \$51,701,413, as approved by the Board in November 2017, from Fund 77 instead of Fund 32; and 4) revise other previously approved transactions with AB 134 funding from the newly established Fund 77.

COMMITTEE: Technology, April 20, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Establish the Community Air Protection AB 134 Fund (77) and recognize revenue, upon receipt, up to \$107.5 million for the AB 134 grant award into the new fund instead of the Carl Moyer Program Fund (32).
2. Transfer up to \$51,701,413 as a temporary loan, as needed, from the Carl Moyer Program AB 923 Fund 80, into the Community Air Protection AB 134 Fund (77), instead of the Carl Moyer Program Fund (32).
3. Authorize the Chairman to execute contracts in an amount not to exceed \$51,701,413, as approved by the Board in November 2017, from the Community Air Protection AB 134 Fund (77) instead of the Carl Moyer Program Fund (32).
4. Authorize the Executive Officer to redistribute the source of funds between the Carl Moyer Program (32), Carl Moyer Program AB 923 (80), and the Community Air Protection AB 134 (77) Funds in order to expeditiously meet the

program encumbrance and expenditure targets in accordance with any applicable guidance or direction from CARB.

5. Transfer and appropriate up to \$561,792, as approved by the Board in January 2018, from the Community Air Projection AB 134 Fund (77) to the FY 2017-18 General Fund Budget.

Wayne Natri
Executive Officer

MMM:FM:LCM:DAH

Background

In November 2017, the Board approved “Year 19” Carl Moyer Program awards including awards using AB 134 revenues. In December 2017, the Board recognized AB 134 revenue up to \$107.5 million from CARB into the Carl Moyer Program Fund (32). In January 2018, the Board approved the transfer of funds to implement AB 134.

These funds are part of the \$250 million allocation to CARB resulting from a 2017 Budget Act amendment. The funds will be distributed by CARB for implementation of projects pursuant to the Carl Moyer Memorial Air Quality Standards Attainment Program, except that up to 40% of the funds may be used for truck projects meeting the criteria of the Proposition 1B Goods Movement Program.

Proposal

These actions are to establish the Community Air Protection AB 134 Fund (77) and recognize revenue, upon receipt, up to \$107.5 million for the AB 134 grant award into the new fund instead of the Carl Moyer Program Fund (32) as previously requested in the December 2017 Board letter.

In November 2017, when the Board approved “Year 19” Carl Moyer Program awards, some of the awards were funded using AB 134 revenue, with the intent at the time to recognize AB 134 revenue and administer the funding in the Carl Moyer Program Fund (32). However, for program tracking and audit purposes, the AB 134 revenue will now be recognized into a new special revenue fund (Fund 77), instead of the Carl Moyer Program Fund (32). As a result of this change: a) the temporary loan transfer, as needed, will be from the Carl Moyer Program AB 923 Fund (80) to the Community Air Protection AB 134 Fund (77); b) contracts using AB 134 funding will be executed from this new special revenue fund (Fund 77), subject to CARB approval of AB 134 projects; and c) the prior approval granted to the Executive Officer will allow for the redistribution of the source of funds between Carl Moyer Program SB 1107 (32), AB 923 (80) and Community Air Protection AB 134 (77) special revenue funds.

Finally, the January 2018 Board letter authorized the transfer and appropriation of funds from the Carl Moyer Program Fund (32) to the General Fund Budget for AB 134 implementation. The transfer will now come from the newly created Community Air Protection AB 134 Special Revenue Fund (77). All of these transactions are proposed to be revised to reflect the new AB 134 fund in the Recommended Actions in this Board letter.

Resource Impacts

The grant agreement with CARB for the AB 134 revenue has been executed and AB 134 funding, upon receipt, will be recognized into the Community Air Protection AB 134 Fund (77) established in this Board letter. The transactions described in the Proposal above will be executed from this new special revenue fund.

Agenda Item #3

Sujata Jain

Establish Special Revenue Fund,
Recognize AB 134 Grant Revenue,
Transfer, Appropriate, Redistribute
Funds and Execute Contracts

Background

In 2017, related to AB 134 funding, the Board authorized:

- Up to \$107.5 million in AB 134 funding from CARB to be recognized in the Carl Moyer Fund (32)
- A temporary loan, as needed, up to \$51.7 million from the Carl Moyer Program AB 923 Fund (80) into the Carl Moyer Fund (32)
- The execution of contracts in an amount not to exceed \$51.7 million from the Carl Moyer Fund (32)

Background (cont'd)

- The transfer and appropriation up to \$561,792 from the Carl Moyer Program Fund (32) to the General Fund FY 2017-18 Budget
- The Executive Officer to redistribute the source of funds between the Carl Moyer Fund (32), Carl Moyer Program AB 923 Fund (80) and AB 134 funding

Proposal/Recommended Actions

- For tracking and audit purposes, establish the Community Air Protection AB 134 Fund (77) and recognize revenue, upon receipt, up to \$107.5 million for the AB 134 grant award into the new fund instead of the Carl Moyer Fund (32)
- A temporary loan, as needed, will be transferred from the Carl Moyer Program AB 923 Fund (80) into the Community Air Protection AB 134 Fund (77) instead of the Carl Moyer Fund (32)
- Contracts using AB 134 funds will be executed from the Community Air Protection AB 134 Fund (77) instead of the Carl Moyer Fund (32)

Proposal/Recommended Actions (cont'd)

- The transfer and appropriation from the Carl Moyer Program Fund (32) will now come from the Community Air Protection AB 134 Fund (77)
- The prior approval granted to the Executive Officer will now allow for the redistribution of the source of funds between the Carl Moyer (32), Carl Moyer Program AB923 (80), and the Community Air Protection AB 134 (77) Funds