



South Coast Air Quality Management District



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

TECHNOLOGY COMMITTEE MEETING

Committee Members

Council Member Carlos Rodriguez, Chair
Supervisor Andrew Do
Supervisor Curt Hagman
Mayor Patricia Lock Dawson
Mayor Larry McCallon
Board Member Veronica Padilla-Campos

May 19, 2023 ♦ 12:00 p.m.

TELECONFERENCE LOCATIONS

Yorba Linda Public Library
Study Room 2
4852 Lakeview Avenue
Yorba Linda, CA 92886

A meeting of the South Coast Air Quality Management District Technology Committee will be held at 12:00 p.m. on Friday, May 19, 2023 through a hybrid format of in-person attendance in the Dr. William A. Burke Auditorium at the South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, and remote attendance via videoconferencing and by telephone. Please follow the instructions below to join the meeting remotely.

Please refer to South Coast AQMD's website for information regarding the format of the meeting, updates if the meeting is changed to a full remote via webcast format, and details on how to participate:

<http://www.aqmd.gov/home/news-events/meeting-agendas-minutes>

ELECTRONIC PARTICIPATION INFORMATION (Instructions provided at bottom of the agenda)

Join Zoom Meeting - from PC or Laptop

<https://scaqmd.zoom.us/j/96669409722>

Zoom Webinar ID: 966 6940 9722 (applies to all)

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**Audience will be allowed to provide public comment in person
or through Zoom connection or telephone.**

PUBLIC COMMENT WILL STILL BE TAKEN

Cleaning the air we breathe...

AGENDA

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)). If you wish to speak, raise your hand on Zoom or press Star 9 if participating by telephone. All agendas for regular meetings are posted at South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of the regular meeting. Speakers may be limited to three (3) minutes total for all items on the agenda.

CALL TO ORDER

ROLL CALL

ACTION ITEMS (1-4):

- 1. Adopt Resolution, Recognize Funds for FY 2022-23 Carl Moyer State Reserve, Enhanced Fleet Modernization and Clean Cars 4 All Programs, and Transfer Funds (*Motion Requested*)**

Tom Lee
Program Supervisor

In May 2023, CARB approved allocations for the FY 2022-23 Carl Moyer “Year 25” State Reserve Program. The allocation to the South Coast AQMD is up to \$5.6 million, including 6.25 percent in administrative funds. The Carl Moyer State Reserve funds must be used for on-road zero emission heavy-duty truck replacement projects that are eligible pursuant to the On-Road Heavy-Duty Vehicle Voucher Incentive Program (VIP). Also, in April, CARB allocated \$1.4 million in Enhanced Fleet Modernization Program (EFMP) and \$40 million in Clean Cars 4 All (CC4A) to continue implementing the Replace Your Ride (RYP) Program. These actions are to: 1) adopt a resolution and accept terms and conditions for FY 2022-23 Carl Moyer State Reserve and recognize up to \$5.6 million in Carl Moyer State Reserve funds; 2) recognize up to \$1.4 million in EFMP and \$40 million in CC4A from CARB into HEROS II Special Revenue Fund (56); 3) approve vouchers and other alternative mobility options until all available funds are exhausted; 4) reimburse the General Fund for administrative costs necessary to implement RYP.
- 2. Recognize Revenue, Transfer Funds, Execute and Amend Agreements to Demonstrate Plug-In Hybrid Tugboat, Fuel Cell Trucks, Battery Electric Compactors, and Retrofit Ocean-Going Vessels and Reimburse General Fund (*Motion Requested*)**

Mei Wang
Assistant Deputy
Executive Officer

South Coast AQMD has preliminary been awarded up to \$16,136,700 from U.S. EPA FY22 Targeted Airshed Grant (TAG) Program to demonstrate a plug-in hybrid tugboat, heavy-duty fuel cell trucks, and battery electric asphalt compactors. In September 2020, the Board recognized \$300,000 from the San Pedro Bay Ports for their cost-share of an ocean-going vessel (OGV) retrofit project awarded by FY20 EPA TAG. EPA subsequently approved a change in project scope and project partner, and San Pedro Bay

Ports has committed to providing an additional \$300,000 to the project. These actions are to: 1) recognize revenue up to \$16,136,700 from U.S. EPA into the Clean Shipping Technology Demonstration Special Revenue Fund (83) and the Advanced Technology, Outreach and Education Fund (17); 2) transfer up to \$1.5 million from the Air Quality Investment Program Fund (27)- Rule 1111 into Fund (83) and \$800,000 from the Clean Fuels Program Fund (31) into Fund (17); 3) contingent upon U.S. EPA's final awards, execute contracts with Crowley Maritime Corporation for up to \$11 million from Fund (83), and with Daimler Truck North America, LLC for up to \$5.6 million and Volvo for up to \$1,086,700 from Fund (17); 4) recognize \$300,000 from San Pedro Bay Ports for the OGV retrofit project into the Clean Shipping Technology Demonstration Special Revenue Fund (83), and execute an agreement with San Pedro Bay Ports for \$600,000 including the \$300,000 previously recognized for the Ports' cost-share of the OGV retrofit project; 5) amend the MSC USA contract to include the additional cost-share from San Pedro Bay Ports; and 6) reimburse the General Fund up to \$250,000 from Fund (17) and up to \$500,000 from Fund (83) to administer these projects.

3. Recognize Revenue, Transfer Funds, and Execute Contract for Development and Demonstration of Medium-Duty Zero-Emission Electric Power Take-Off System Work Truck (*Motion Requested*)

Sam Cao
Program Supervisor

South Coast AQMD expects to receive an award of \$500,000 from U.S. EPA under the Clean Air Technology Initiative for Odyne to develop and demonstrate an electric Power Take-Off system on a zero-emission battery electric medium-duty truck chassis. These actions are to: 1) recognize revenue, upon receipt, up to \$500,000 from U.S. EPA into the Advanced Technology, Outreach and Education Fund (17); 2) transfer \$250,000 from the Clean Fuels Program Fund (31) as cost-share into the Advanced Technology, Outreach, and Education Fund (17); and 3) execute a contract with Odyne for the development and demonstration of the zero-emission electric Power Take-off system on an all-electric work truck chassis in an amount not to exceed \$750,000 from the Advanced Technology, Outreach, and Education Fund (17).

4. Approve Additional Funding for the Residential Electric Lawn Mower Rebate Program (*Motion Requested*)

Yuh Jiun Tan
Program Supervisor

The Residential Electric Lawn Mower Rebate Program provides rebates to help offset the purchase cost of new electric lawn mowers. Participants who purchase a new electric lawn mower can apply online for a rebate after scrapping their old gasoline-powered lawnmowers at a participating licensed dismantler. This action is to request an allocation of up to \$250,000 from the Air Quality Investment Fund (27) Rule 2202 funds to continue the year-round Residential Electric Lawn Mower Rebate Program.

5. Other Business

Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may ask a question for clarification, may make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter, or may take action to direct staff to place a matter of business on a future agenda. (Gov't. Code Section 54954.2)

6. Public Comment Period

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

7. Next Meeting Date

Friday, August 18, 2023 at 12:00 p.m.

ADJOURNMENT

Document Availability

All documents (i) constituting non-exempt public records, (ii) relating to an item on an agenda for a regular meeting, and (iii) having been distributed to at least a majority of the Committee after the agenda is posted, are available by contacting Penny Shaw Cedillo at 909.396.3179, or send the request to pcedillo@aqmd.gov.

Americans with Disabilities Act and Language Accessibility

Disability and language-related accommodations can be requested to allow participation in the Technology Committee meeting. The agenda will be made available, upon request, in appropriate alternative formats to assist persons with a disability (Gov't Code Section 54954.2(a)). In addition, other documents may be requested in alternative formats and languages. Any disability or language-related accommodation must be requested as soon as practicable. Requests will be accommodated unless providing the accommodation would result in a fundamental alteration or undue burden to South Coast AQMD. Please contact Penny Shaw Cedillo at 909.396.3179 from 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to pcedillo@aqmd.gov.

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION

Instructions for Participating in a Virtual Meeting as an Attendee

As an attendee, you will have the opportunity to virtually raise your hand and provide public comment.

Before joining the call, please silence your other communication devices such as your cell or desk phone. This will prevent any feedback or interruptions during the meeting.

Please note: During the meeting, all participants will be placed on Mute by the host. You will not be able to mute or unmute your lines manually.

After each agenda item, the Chairman will announce public comment.

Speakers may be limited to a total of 3 minutes for the entirety of the consent calendar plus board calendar, and three minutes or less for each of the other agenda items.

A countdown timer will be displayed on the screen for each public comment.

If interpretation is needed, more time will be allotted.

Once you raise your hand to provide public comment, your name will be added to the speaker list. Your name will be called when it is your turn to comment. The host will then unmute your line.

Directions for Video ZOOM on a DESKTOP/LAPTOP:

- If you would like to make a public comment, please click on the **“Raise Hand”** button on the bottom of the screen.
- This will signal to the host that you would like to provide a public comment and you will be added to the list.

Directions for Video Zoom on a SMARTPHONE:

- If you would like to make a public comment, please click on the **“Raise Hand”** button on the bottom of your screen.
- This will signal to the host that you would like to provide a public comment and you will be added to the list.

Directions for TELEPHONE line only:

- If you would like to make public comment, please **dial *9** on your keypad to signal that you would like to comment.

Technology Committee Agenda #1

BOARD MEETING DATE: June 2, 2023

AGENDA NO.

PROPOSAL: Adopt Resolution, Recognize Funds for FY 2022-23 Carl Moyer State Reserve, Enhanced Fleet Modernization and Clean Cars 4 All Programs

SYNOPSIS: In May 2023, CARB approved allocations for the FY 2022-23 Carl Moyer “Year 25” State Reserve Program. The allocation to the South Coast AQMD is up to \$5.6 million, including 6.25 percent in administrative funds. The Carl Moyer State Reserve funds must be used for on-road zero emission heavy-duty truck replacement projects that are eligible pursuant to the On-Road Heavy-Duty Vehicle Voucher Incentive Program (VIP). Also, in April, CARB allocated \$1.4 million in Enhanced Fleet Modernization Program (EFMP) and \$40 million in Clean Cars 4 All (CC4A) to continue implementing the Replace Your Ride (RYP) Program. These actions are to: 1) adopt a resolution and accept terms and conditions for FY 2022-23 Carl Moyer State Reserve and recognize up to \$5.6 million in Carl Moyer State Reserve funds; 2) recognize up to \$1.4 million in EFMP and \$40 million in CC4A from CARB into HEROS II Special Revenue Fund (56); 3) approve vouchers and other alternative mobility options until all available funds are exhausted; 4) reimburse the General Fund for administrative costs necessary to implement RYP.

COMMITTEE: Technology, May 19, 2023; Recommended for Approval

RECOMMENDED ACTIONS:

1. Adopt the attached Resolution and authorize the Executive Officer to accept the terms and conditions of the FY 2022-23 Carl Moyer State Reserve funds and recognize up to \$5.6 million in Carl Moyer State Reserve funds into the VIP Fund (59); and
2. Recognize from CARB, upon receipt, up to \$1.4 million in EFMP and \$40 million in CC4A into HEROS II Special Revenue Fund (56); and
3. Authorize the Executive Officer and/or designee to approve vouchers and other alternative mobility options for the continued implementation of RYP, until all funds are exhausted; and

4. Reimburse the General Fund up to \$4,140,000 (15 percent of EFMP and 20 percent of CC4A), consists of up to \$140,000 from EFMP and up to \$4,000,000 from CC4A, from the HEROS II Special Revenue Fund (56) as authorized by the grant agreements for administrative costs necessary to implement RYR.

Wayne Nastri
Executive Office

AK:MW:WS:TL:VJ:AN

Background

The Carl Moyer Memorial Air Quality Standards Attainment Program provides incentive funds to help pay for the incremental cost of purchasing cleaner than required engines, vehicles, and/or equipment. Pursuant to Health and Safety Code Section 44286(d), CARB may reserve up to ten percent of the Carl Moyer Program funds available each year for projects that are eligible for funding. CARB reserves the sole authority to distribute the Carl Moyer Program State Reserve funds (State Reserve funds) into a specific program each year. For 2023, approximately \$13 million in the State Reserve funds are available.

In May 2023, CARB approved allocations of the FY 2022-23 (Year 25) Carl Moyer Program State Reserve funds based on applications received from participating air districts. For this year, CARB allocated all the State Reserve funds towards the continued implementation of the VIP Program. VIP is a streamlined truck replacement program for small fleets that seek to replace an older heavy-duty diesel vehicle with a newer, zero emission vehicle. South Coast AQMD has been implementing VIP since 2009 which has resulted in the replacement of over 1,400 trucks totaling in grant funds over \$65 million. The allocation for the South Coast AQMD is \$5,526,300, including 6.25 percent in administrative funds, which is approximately 43 percent of the total State Reserve funds available. South Coast AQMD intends to use these funds for zero-emission replacement projects under the VIP prior to the liquidation deadline, however, if program participation is limited, South Coast AQMD will work with CARB in requesting authorization to reallocate these funds to other equivalent zero-emission projects.

In addition, since 2015, South Coast AQMD has been implementing an Enhanced Fleet Modernization Program (EFMP) and Clean Cars 4 All (CC4A), branded as Replace Your Ride. South Coast AQMD's Replace Your Ride Program is a vehicle retirement and replacement program which provides incentives to low-income households to scrap and replace their older, high emitting vehicles with newer, cleaner models or other transportation options. Since its inception, South Coast AQMD has provided over \$77

million in EFMP funding and replaced over 9,700 older passenger vehicles with newer fuel-efficient vehicles, e-Bikes and transportation vouchers which have resulted in reducing 27 tons of NOx, 1.5 tons PM, and 37,193 tons of GHG emission annually. Approximately 93 percent of the vouchers have been issued to low-income participants residing in disadvantaged communities. The upcoming CC4A grant included a few changes to the program. RYR participants could be eligible for up to \$12,000 per voucher, instead of the prior maximum incentive of \$9,500, when they replace their eligible vehicles with zero-emission or plug-in hybrid vehicles and reside in disadvantaged communities. In addition, the program will phase out hybrid vehicles in 2024.

Proposal

Staff proposes to adopt the attached Resolution recognizing up to \$5.6 million in the FY 2022-23 Carl Moyer Program State Reserve funds from CARB into the VIP Fund (59) and authorize the Executive Officer to accept the terms and conditions of the FY 2022-23 (Year 25) Carl Moyer Program State Reserve grant award. The State Reserve funds must be used for on-road zero emission heavy-duty truck replacement projects that meet the eligibility requirements outlined in the 2023 VIP Guidelines.

In addition, recognize up to \$41.4 million from CARB, consisting of \$1.4 million from EFMP and \$40 million from CC4A into the HEROS II Special Revenue Fund (56) to continue implementation of the RYR and authorize the Executive Officer and/or designee to approve vouchers and other alternative mobility options for this program until all available funds are exhausted.

Benefits to South Coast AQMD

The additional funds provided by the State Reserve to fund on-road zero emission heavy-duty truck replacement projects will provide surplus emissions reductions of both NOx and PM as required by the VIP. The State Reserve funds will be allocated for on-road heavy-duty truck replacement projects that are eligible according to the 2023 VIP Guidelines. Since the vehicles and equipment funded under these programs will operate for the life of the contract and beyond, the emissions reductions will provide long-term benefits.

EFMP will continue to provide clean vehicle incentives to qualifying low-income households primarily for those residing in disadvantaged communities and provide emission reduction benefits to these communities and throughout the region.

Resource Impacts

The State Reserve funds, upon receipt from CARB, will be recognized in the VIP Fund (59). Total State Reserve funds for on-road projects eligible under the Voucher Incentive Program will not exceed \$5.6 million.

CARB funding Grant# G22-CC4A-01 up to \$40 million and #G22-EFMP-1 up to \$1.4 million, upon receipt, will be recognized into the HEROS II Special Revenue Fund (56). The transfer of funds from the HEROS II Special Revenue Fund (56) to reimburse the General Fund for administrative costs will not exceed \$4,140,000.

Attachment
Resolution

RESOLUTION NO. 19-

A Resolution of the South Coast Air Quality Management District Board Recognizing Funds and Accepting the Terms and Conditions of the FY 2022-23 (Year 25) Carl Moyer Program State Reserve Grant Award

WHEREAS, under Health & Safety Code § 40400 *et seq.*, the South Coast Air Quality Management District (South Coast AQMD) is the local agency with the primary responsibility for the development, implementation, monitoring and enforcement of air pollution control strategies, clean fuels programs and motor vehicle use reduction measures; and

WHEREAS, the South Coast AQMD is authorized by Health & Safety Code §§ 40402, 40440, and 40448.5 as well as the Carl Moyer Memorial Air Quality Standards Attainment Program (§ 44275, *et seq.*) to implement programs to reduce transportation emissions, including programs to encourage the use of alternative fuels and low-emission vehicles; to develop and implement other strategies and measures to reduce air contaminants and achieve the state and federal air quality standards; and

WHEREAS, the Governing Board has adopted several programs to reduce emissions from on-road and off-road vehicles, as well as emissions from other equipment, including the Carl Moyer Program; and

WHEREAS, the South Coast AQMD is designated as an extreme non-attainment area for ozone and as such is required to utilize all feasible measures to meet national ambient air quality standards.

BE IT FURTHER RESOLVED that the Governing Board approves the South Coast AQMD's participation in the State Reserve portion of the FY 2022-23 (Year 25) Carl Moyer Program, and the acceptance of funds allocated and awarded to the South Coast AQMD for eligible projects and program administration; and

THEREFORE, BE IT RESOLVED that the Governing Board, in regular session assembled on June 2, 2023, does hereby accept the terms and conditions of the FY 2022-23 (Year 25) Carl Moyer Program State Reserve grant award and recognize up to \$5.6 million from CARB in the Voucher Incentive Program (VIP) Fund (59) for eligible on-road projects under the On-Road Heavy-Duty Vehicle VIP.

BE IT FURTHER RESOLVED that the Executive Officer is authorized and directed to take all steps necessary to carry out this Resolution.

Date

Faye Thomas, Clerk of the Board

Agenda Item #1

Adopt Resolution Recognizing Funds
for FY 2022-23 Carl Moyer State
Reserve, Enhanced Fleet Modernization
and Clean Cars 4 All Programs

Tom Lee

VIP Program Funding

- CARB reserves 10% of Carl Moyer Program State Reserve funds (State Reserve) each year for eligible projects
 - \$13 million available for FY 2022-23
 - CARB allocated \$5.6 million to South Coast AQMD for the VIP Program

VIP Program Eligibility

- Fleet eligibility limited to 10 or fewer vehicles
- 75% operation in California
- Diesel or alternative fuel (e.g. natural gas)
- Engine model year 2010 to 2017
- Funding up to \$410K for newer, zero-emission vehicles



Replace Your Ride

- Scraps older vehicles and replace with cleaner options
- +9,700 vehicles and 12 e-bikes replaced = \$76M
- All participants must meet income requirements and additional incentives available for participants residing in a disadvantaged community
- 93% of participants reside in disadvantaged communities
- Annual emission reductions: 27 tons of NOx, 1.5 tons PM, and 37,193 tons of GHG



Replace Your Ride Program Changes

- Phase out conventional gas hybrid option in 2024
- All CARB programs will use 300% Federal Poverty Level eligibility for annual gross income
- Maximum incentive amounts increased from \$9,500 to \$12,000



Recommended Actions

- Adopt Resolution to accept the terms and conditions of the FY 2022-23 Carl Moyer State Reserve Grant funds
- Recognizing, upon receipt, up to
 - \$5.6 million in State Reserve funds from CARB into the VIP Program Fund (59);
 - \$1.4 million in EFMP; and
 - \$40 million in Clean Cars 4 All into HEROS II Special Revenue Fund (56)

Recommended Actions

- Authorize the Executive Officer and/or designee to approve vouchers and other alternative mobility options for the continued implementation of Replace Your Ride, until all funds are exhausted
- Reimburse the General Fund up to \$4,140,000 from HEROS II Special Revenue Fund (56) for administrative costs of the Replace Your Ride Program

Technology Committee Agenda #2

BOARD MEETING DATE: June 2, 2023

AGENDA NO.

PROPOSAL: Recognize Revenue, Transfer Funds, Execute and Amend Agreements to Demonstrate Plug-In Hybrid Tugboat, Fuel Cell Trucks, Battery Electric Compactors, and Retrofit Ocean-Going Vessels and Reimburse General Fund

SYNOPSIS: South Coast AQMD has preliminary been awarded up to \$16,136,700 from U.S. EPA FY22 Targeted Airshed Grant (TAG) Program to demonstrate a plug-in hybrid tugboat, heavy-duty fuel cell trucks, and battery electric asphalt compactors. In September 2020, the Board recognized \$300,000 from the San Pedro Bay Ports for their cost-share of an ocean-going vessel (OGV) retrofit project awarded by FY20 EPA TAG. EPA subsequently approved a change in project scope and project partner, and San Pedro Bay Ports has committed to providing an additional \$300,000 to the project. These actions are to: 1) recognize revenue up to \$16,136,700 from U.S. EPA into the Clean Shipping Technology Demonstration Special Revenue Fund (83) and the Advanced Technology, Outreach and Education Fund (17); 2) transfer up to \$1.5 million from the Air Quality Investment Program Fund (27) - Rule 1111 into Fund (83) and \$800,000 from the Clean Fuels Program Fund (31) into Fund (17); 3) contingent upon U.S. EPA's final awards, execute contracts with Crowley Maritime Corporation for up to \$11 million from Fund (83), and with Daimler Truck North America, LLC for up to \$5.6 million and Volvo for up to \$1,086,700 from Fund (17); 4) recognize \$300,000 from San Pedro Bay Ports for the OGV retrofit project into the Clean Shipping Technology Demonstration Special Revenue Fund (83), and execute an agreement with San Pedro Bay Ports for \$600,000 including the \$300,000 previously recognized for the Ports' cost-share of the OGV retrofit project; 5) amend the MSC USA contract to include the additional cost-share from San Pedro Bay Ports; and 6) reimburse the General Fund up to \$250,000 from Fund (17) and up to \$500,000 from Fund (83) to administer these projects.

COMMITTEE: Technology, May 19, 2023; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue, upon receipt, of up to a total of \$16,136,700 from the US EPA, of which \$10 million will go into the Clean Shipping Technology Demonstration Special Revenue Fund (83) and \$6,136,700 will go into Advanced Technology, Outreach and Education Fund (17).
2. Transfer up to \$1.5 million from the Air Quality Investment Program Fund (27)- Rule 1111 and up to \$800,000 from the Clean Fuels Program Fund (31) into Clean Shipping Technology Demonstration Special Revenue Fund (83) and Advanced Technology, Outreach and Education Fund (17), respectively, for use as cost-share for the plug-in hybrid tugboat demonstration project and the heavy-duty fuel cell truck demonstration project, respectively.
3. Authorize the Executive Officer to execute the following contracts, contingent upon U.S. EPA's final awards:
 - a. Crowley Maritime Corporation for up to \$11 million from Clean Shipping Technology Demonstration Special Revenue Fund (83) for the plug-in hybrid tugboat demonstration project;
 - b. Daimler Truck North America, LLC for up to \$5,600,000 from Fund (17) to demonstrate pre-commercial fuel cell electric trucks;
 - c. Volvo Technology of America, LLC for up to \$1,086,700 from Fund (17) to develop and demonstrate battery electric asphalt compactors.
4. Recognize \$300,000 from San Pedro Bay Ports for their cost-share to the OGV retrofit project into the Clean Shipping Technology Demonstration Special Revenue Fund (83) and execute an agreement with the Ports for \$600,000 including the \$300,000 previously recognized as the Ports' cost-share towards the OGV retrofit project.
5. Authorize the Executive Officer to amend contract with MSC USA to add the \$600,000 San Pedro Bay Ports' cost-share from Clean Shipping Technology Demonstration Special Revenue Fund (83) for an OGV retrofit project.
6. Reimburse the General Fund for up to \$750,000 comprising of up to \$250,000 from Advanced Technology, Outreach and Education Fund (17) and \$500,000 from Clean Shipping Technology Demonstration Special Revenue Fund (83), for administrative costs necessary to implement the above-mentioned projects.

Wayne Natri
Executive Officer

AK:MW:VP:MH

Background

The 2022 AQMP includes a variety of strategies to reduce NOx emissions, which is a precursor to ozone, to achieve the 2015 8-hour ozone standards. Offroad, freight, and marine sectors are significant sources of NOx emissions. Accelerated deployment of cleaner technologies, such as zero-emission technologies, regulatory approaches, incentives, and other control strategies are included in the 2022 AQMP. Developing lower emission technologies in the offroad, freight, and marine sectors are the initial steps needed to achieve NOx reductions from these sectors.

In 2022, staff submitted four grant applications, requesting up to \$10 million from the U.S. EPA TAG to develop and demonstrate on-road and off-road clean technology projects. Three projects have been preliminarily awarded which includes the development of a plug-in hybrid tugboat with innovative supporting charging infrastructure powered by hydrogen fuel cells, the development of fuel-cell electric trucks, and demonstration of battery electric asphalt compactors.

Plug-in Hybrid-Tugboat Project with Innovative Supporting Charging Infrastructure Powered by Hydrogen Fuel Cells

Tugboats are one of the largest emitting categories of commercial harbor crafts. To achieve emission reductions and meet the basin attainment needs, emission reductions from the marine category require new technology development and support at the federal level to develop and transition to cleaner engine technologies. Tugboats operate on short routes but have significant idling times and high horsepower diesel engines. Utilizing electric battery powered propulsion systems will provide instantaneous and efficient power for a wide range of tugboat operations. With California's newly amended commercial harbor craft regulation, the marine industry seeks feasible emission reduction technologies and a path towards decarbonization. Developing a cleaner technology solution for tugboats will significantly reduce the emissions from this category.

Commercializing Heavy-Duty Fuel Cell Trucks

Accelerating hydrogen fuel cell technology is critical to achieving state and federal air quality standards. Hydrogen fuel cell technologies can displace diesel trucks in traditional longer-range duty cycles that are still unfeasible for battery electric vehicles. This demonstration project will target high emission, long-range use trucks to provide an invaluable model for deploying advanced hydrogen vehicles that contribute to the vital mix of viable zero-emission technologies required for large-scale emission reductions. The deployment of hydrogen fuel cell trucks on revenue-generating, high-visibility routes will validate the reliability and effectiveness of this technology and its ability to reach commercialization.

Battery Electric Asphalt Compactor Development and Demonstration

This project is to develop and support a customer pilot project in California to test the battery electric compactor in real-world applications and expedite product availability into the North American marketplace.

Ocean-going Vessels Retrofit

In September 2020, South Coast AQMD Governing Board approved a project to retrofit OGV funded by the 2020 U.S. EPA TAG program, San Pedro Bay Ports, South Coast AQMD (\$300,000 cost-share), and MAN Energy Solutions USA Inc. (MAN). In early 2021, MAN's management team informed South Coast AQMD that the original award requirements could not be fulfilled. South Coast AQMD obtained EPA's approval to change the project scope for retrofitting two OGVs and having MSC USA complete the project. In September 2021, the Board approved MSC USA to complete this project. Subsequently, San Pedro Bay Ports committed to adding \$300,000 to their initial cost-share of \$300,000 to retrofit two OGVs, instead of one, bringing their total cost-share to \$600,000.

Proposal

Plug-in Hybrid-Tugboat Project with Innovative Supporting Charging Infrastructure Powered by Hydrogen Fuel Cells

Crowley will design and build a 90-ton bollard pull plug-in hybrid tugboat for ship assist and harbor work. The proposed vessel will replace a Crowley high-horsepower Harbor Class tugboat with two Tier 2, 2,365 horsepower engines. The replacement tugboat will be a majority zero-emission operation with adequate infrastructure installed. Along with the tugboat, an innovative standalone vessel charging system with batteries and hydrogen fuel cell power generation will be developed to supply zero-emission power without needing electrical grid infrastructure.

Commercializing Heavy-Duty Fuel Cell Trucks Project

Six Daimler (Freightliner) Class 8 hydrogen fuel cell trucks will be developed to be leased through Penske to various Southern California fleet operators. Trucks will be domiciled in the Inland Empire and operate on regular longer-range routes transporting goods throughout the South Coast Air Basin. The deployment of hydrogen fuel cell trucks on revenue-generating, high-visibility routes will validate the reliability and effectiveness of this technology and its ability to reach commercialization. South Coast AQMD is partnering with Daimler Trucks North America (DTNA), Cummins Inc. (Cummins), and Penske Truck Leasing Co, L.P. (Penske) on an innovative demonstration project to reduce diesel emissions and accelerate the market for heavy-duty hydrogen fuel cell electric vehicles. The deployment of hydrogen fuel cell trucks on revenue-generating, high-visibility routes will validate the reliability and effectiveness of this technology and its ability to reach commercialization.

Battery Electric Compactor Development and Demonstration

South Coast AQMD is partnering with Volvo Technology of America, LLC (Volvo) to develop and demonstrate three prototype zero-emission battery electric asphalt compactors with fleets in the Coachella Valley and South Coast. This project will develop and support a customer pilot project in California to test the battery electric compactor in real-world applications and expedite product availability into the North American marketplace by 2024.

Ocean-Going Vessels Retrofit

An agreement with San Pedro Bay Ports will be executed for \$600,000 for the Ports' cost-share for the OGV retrofit projects and the MSC USA contract will be modified to add the \$600,000 from the Ports.

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. The request for sole source awards for the Crowley, DTNA, and Volvo contracts are made under provision B.3.c, which states that awarding a contract is infeasible under small purchase procedures, sealed bids or competitive proposals and that the awarding federal agency or pass-through entity expressly authorizes non-competitive proposals in response to a written request from the non-Federal entity. The nature of these projects makes them infeasible under small purchase procedures, sealed bids or competitive proposals, and the EPA has expressly authorized sole-source awards to these entities.

Benefits to South Coast AQMD

The South Coast Air Basin is classified as an "extreme" nonattainment area for ozone under the Federal Clean Air Act. Projects to support plug-in hybrid tugboat, long-range Class 8 fuel cell truck demonstration, and battery electric compactors are included in *Technology Advancement Office Clean Fuel Program 2022 Plan Update* under the categories of "Develop and Demonstrate Medium-Duty and Heavy-Duty Fuel Cell Vehicles" and "Develop and Demonstrate Medium-Duty and Heavy-Duty On-Road and Off-Road Battery Electric and Hybrid Vehicles and Equipment." Successful demonstration of these projects helps reduce ozone and PM_{2.5} air pollution. The plug-in tugboat, fuel cell trucks, and asphalt compactor projects will reduce 62, 1.3, and 5 tons of NO_x per year and 1.1, 0.01, and 0.47 tons of PM_{2.5} per year, respectively.

Resource Impacts

Plug-in Hybrid-Tugboat Project with Innovative Supporting Charging Infrastructure Powered by Hydrogen Fuel Cells

The contract with Crowley will not exceed \$11 million from the Clean Shipping Technology Demonstration Special Revenue Fund 83. The total project cost is \$43.5 million, with funding sources as shown below:

Funding Source	Funding Amount	Percent
U.S. EPA FY 2022-23 Targeted Airshed Grant	\$10,000,000	23%
San Pedro Bay Ports <i>(cost-share)</i>	\$4,440,000	10%
Crowley <i>(cost-share)</i>	\$27,518,000	64%
South Coast AQMD <i>(requested)</i>	\$1,500,000	3%
Total	\$43,458,000	100%

Commercializing Heavy-Duty Fuel Cell Trucks Project

The contract with DTNA will not exceed \$5,600,000 from the Advanced Technology, Outreach and Education Fund (17). The total project cost is \$6,850,000, with funding sources as shown below. Any unspent Clean Fuels funds will be transferred back to the Clean Fuels Program Fund (31) after project completion:

Funding Source	Funding Amount	Percent
U.S. EPA FY 22 Targeted Airshed Grant	\$5,000,000	73%
DTNA <i>(cost-share)</i>	\$1,050,000	15%
South Coast AQMD <i>(requested)</i>	\$800,000	12%
Total	\$6,850,000	100%

Battery Electric Compactor Development and Demonstration

The contract with Volvo will not exceed \$1,086,700 from the Advanced Technology, Outreach and Education Fund (17). The total project cost is \$1.9 million as shown below:

Funding Source	Funding Amount	Percent
U.S. EPA FY 22 Targeted Airshed	\$1,136,700	59%
Volvo <i>(cost-share)</i>	\$757,800	41%
Total	\$1,894,500	100%

Ocean-going Vessel Retrofit

An agreement with San Pedro Bay Ports will be executed for \$600,000 for the Ports' cost-share for the OGV retrofit project. The contract amendment with MSC USA will increase the contract award by \$600,000 to add the Ports' cost-share, for a total contract award of \$11,774,000 as indicated below. MSC USA and Wartsila are contributing up to \$8,000,000 of cost-share to the project.

Funding Source	Funding Amount	Percent
U.S. EPA FY20 Targeted Airshed	\$10,874,000	92.5%
San Pedro Bay Ports (<i>original cost-share</i>)	\$300,000	2.5%
San Pedro Bay Ports (<i>additional cost-share</i>)	\$300,000	2.5%
South Coast AQMD (<i>cost-share previously approved</i>)	\$300,000	2.5%
Total	\$11,774,000	100%

Sufficient funds will be available to execute the Crowley, DTNA, Volvo and MSC USA contracts in the Clean Shipping Technology Demonstration Special Revenue Fund (83) and Advanced Technology, Outreach and Education Fund (17) once the San Pedro Bay Ports and U.S. EPA Targeted Airshed grant funds are recognized.

Sufficient funds are also available in the Clean Fuels Program Fund (31). The Clean Fuels Program Fund was 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 revenue 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. Sufficient funds are available to transfer \$1.5 million from Air Quality Investment Program Fund (27) Rule 1111 into the Clean Shipping Technology Demonstration Special Revenue Fund (83) to support the plug-in hybrid tugboat project and the heavy-duty fuel cell truck demonstration project.

Agenda Item #2

Recognize Revenue, Transfer Funds,
Execute and Amend Agreements to
Demonstrate Plug-In Hybrid Tugboat, Fuel Cell
Trucks, Battery Electric Compactors, and Retrofit
Ocean-Going Vessels, and Reimburse
General Fund

Mei Wang

Background

Four applications were submitted under 2022 U.S. EPA Targeted Airshed Grant Program and three projects were preliminary awarded:

- Develop and Demonstrate a Plug-in Hybrid-Tugboat with Innovative Supporting Charging Infrastructure Powered by Hydrogen Fuel Cells
- Demonstrate Pre-Commercial Heavy-Duty Fuel Cell Trucks
- Develop and Demonstrate Battery Electric Asphalt Compactors

Background

- In September 2021, Board approved a project to retrofit ocean-going vessels funded by the 2020 U.S. EPA Targeted Airshed program, San Pedro Bay Ports, South Coast AQMD, and Mediterranean Shipping Company (MSC)
- Due to a project scope change, the San Pedro Bay Ports committed to adding \$300,000 to their initial cost-share of \$300,000 to retrofit two OGVs instead of one.

Proposal – Plug-in Hybrid-Tugboat

- Crowley Maritime Corporation will design a battery plug-in hybrid tugboat to replace a conventional diesel tugboat
- Innovative charging infrastructure using scalable modular hydrogen power generation and battery energy storage
- U.S. EPA award: \$10,000,000
- Expect 62 tons of NOx and 1.1 tons of PM reductions annually



Proposal – Fuel Cell Truck Demonstration

- Daimler Truck North America, LLC and Cummins Inc. will develop six Daimler (Freightliner) Class 8 hydrogen fuel cell trucks
 - Leased through Penske Truck Leasing to various Southern California fleet operators
- Validate the reliability and effectiveness of fuel cell technology and the ability of the commercialization
- U.S. EPA award: \$5,000,000
- Expect 1.3 tons of NOx and 0.01 tons of PM reductions annually



Proposal – Battery Electric Asphalt Compactor

- Volvo Technology of America, LLC will develop and demonstrate three prototype asphalt compactors
 - Explore energy storage capacity and charging infrastructure options
 - Understand operator feedback, commercial aspects of new systems, and viability in the U.S.
- In service demonstration in Coachella Valley
- EPA award: \$1,136,700
- Expect 5 tons of NOx and 0.5 tons of PM reductions annually



Resource Impacts

Project Fund Source(\$)	Plug-in Hybrid-Tugboat	Class 8 Fuel Cell Truck	Battery Electric Asphalt Compactor
EPA Award	\$10,000,000	\$5,000,000	\$1,136,700
<i>South Coast AQMD Cost-Share (Proposed)</i>	<i>\$1,500,000</i>	<i>\$800,000</i>	-
Partners Cost-Share	\$31,958,000	\$1,050,000	\$757,800
Total Project Cost	\$43,458,000	\$6,850,000	\$1,894,500

Recommended Actions

- Recognize revenue up to \$10 million from U.S. EPA into the Clean Shipping Technology Demonstration Special Revenue Fund (83)
- Recognize revenue up to \$6,136,700 into the Advanced Technology, Outreach and Education Fund (17)
- Transfer up to \$1.5 million from the Air Quality Investment Program Fund (27) Rule 1111 into Fund (83)
- Transfer up to \$800,000 from the Clean Fuels Program Fund (31) into Fund (17)

Recommended Actions (cont'd)

- Execute contracts for up to \$11 million from Fund (83) to demonstrate a plug-in hybrid tugboat, \$5.6 million to commercialize fuel cell trucks, and \$1,086,700 to demonstrate electric compactors from Fund (17)
- Recognize \$300,000 from San Pedro Bay Ports and execute an agreement for \$600,000 including the \$300,000 previously recognized cost-share from the Ports

Recommended Actions (cont'd)

- Authorize the Executive Officer to amend MSC USA contract to add the \$600,000 from the San Pedro Bay Ports
- Reimburse the General Fund up to \$250,000 from Fund (17) and \$500,000 from Fund (83) to administer the projects

Technology Committee Agenda #3

BOARD MEETING DATE: June 2, 2023

AGENDA NO.

PROPOSAL: Recognize Revenue, Transfer Funds, and Execute Contract for Development and Demonstration of Medium-Duty Zero-Emission Electric Power Take-Off System Work Truck

SYNOPSIS: South Coast AQMD expects to receive an award of \$500,000 from U.S. EPA under the Clean Air Technology Initiative for Odyne to develop and demonstrate an electric Power Take-Off system on a zero-emission battery electric medium-duty truck chassis. These actions are to: 1) recognize revenue, upon receipt, up to \$500,000 from U.S. EPA into the Advanced Technology, Outreach and Education Fund (17); 2) transfer \$250,000 from the Clean Fuels Program Fund (31) as cost-share into the Advanced Technology, Outreach, and Education Fund (17); and 3) execute a contract with Odyne for the development and demonstration of the zero-emission electric Power Take-off system on an all-electric work truck chassis in an amount not to exceed \$750,000 from the Advanced Technology, Outreach, and Education Fund (17).

COMMITTEE: Technology, May 19, 2023, Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue, upon receipt, up to \$500,000 from U.S. EPA into the Advanced Technology, Outreach and Education Fund (17);
2. Transfer \$250,000 from the Clean Fuels Program Fund (31) as cost-share into the Advanced Technology, Outreach and Education Fund (17); and
3. Authorize the Executive Officer to execute a contract with Odyne for the development and demonstration of the zero-emission electric Power Take-Off system on an all-electric work truck chassis in an amount not to exceed \$750,000 from the Advanced Technology, Outreach and Education Fund (17).

Wayne Nastri
Executive Officer

Background

Odyne Systems, LLC (Odyne) is a clean technology company that develops and manufactures electric Power Take-Off (ePTO) systems to supply power at the worksite for auxiliary equipment using medium- and heavy-duty vocational vehicles. Odyne has already developed ePTO systems for plug-in hybrid electric vocational work trucks that have been implemented with bucket trucks, digger derricks and compressor trucks applications.

CARB's California Advanced Clean Trucks and Advanced Clean Fleet regulations will require new vocational work trucks to use zero-emission (ZE) technologies. Similar to the plug-in hybrid work trucks, the new ZE work trucks will require the installation of ePTO systems to supply power to support ZE operations of jobsite equipment such as welders, water pumps, electrically operated tools, and ventilation systems for underground utility. However, all-electric ZE power systems for work truck applications are not yet commercialized.

Proposal

Odyne proposes to develop, install, and field test one of the first ePTO systems on ZE battery electric work trucks. Partnering with Freightliner Custom Chassis Corporation (FCCC), Odyne will integrate a new ePTO system onto the commercially available FCCC medium-duty MT50e battery-electric chassis. The project will include design of the Odyne electrification system, system integration for the all-electric truck, field demonstration with the fleets, and in-use data collection. Odyne plans to expedite the development of the electric vehicle (EV) worksite solution by drawing upon its electrification technology refined through past awards. Fleets including Los Angeles Department of Water and Power and Southern California Edison have committed to participate and demonstrate the all-electric work trucks under in-use operation.

Sole Source Justification

Section VIII.B.3 of the Procurement Policy and Procedure identifies four provisions by which sole source awards may be justified when contracts are funded in whole or in part with federal funds. This award is made under provision B.3.c: The awarding federal agency authorizes non-competition proposals. U.S. EPA deemed the proposed award to Odyne to be a sub-award and does not require a competitive solicitation. This award is also being made under provision B.2.d.(1): Projects involving cost sharing by multiple sponsors. This project is being cost-shared by U.S. EPA, South Coast AQMD, and Odyne in-kind support.

Benefits to South Coast AQMD

This project intends to facilitate and advance the application of medium-duty EV chassis into the work truck market. The project will potentially fill a market void in all-electric work trucks and bring such trucks to the market to meet the regulatory requirements under the California Advanced Clean Trucks and Advanced Clean Fleet Regulations. The in-use demonstration of all-electric work trucks with the fleets would eliminate emissions of diesel particulates and nitrogen oxides (NOx) during driving and stationary work and reduce noise from operating auxiliary equipment. It is estimated that the project will result in an annual NOx emission reduction of 0.02 ton per truck. The widespread deployment of ZE work trucks will help meet the state and federal ambient air quality standards, consistent with the South Coast AQMD 2022 AQMP. This project supports the Technology Advancement Office Clean Fuels Program 2023 Plan Update under the category of “Develop and Demonstrate MD and HD On-Road and Off-Road Battery Electric and Hybrid Vehicles and Equipment.”

Resource Impacts

The total cost of the proposed project to develop and demonstrate an ePTO system on an all-electric work truck is \$1,050,000. South Coast AQMD expects to receive an award of \$500,000 from U.S. EPA under the Clean Air Technology Initiative (CATI) FY 2023 for this project. Staff is proposing cost-sharing of \$250,000 from the Clean Fuels Program Fund (31) to this project for a total amount not to exceed \$750,000. Odyne will contribute up to \$300,000 of in-kind support.

Proposed Partners	Funding Amount
U.S. EPA (CATI)	\$500,000
Odyne (in-kind)	\$300,000
South Coast AQMD (<i>requested</i>)	\$250,000
Total Project Cost	\$1,050,000

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

Agenda Item #3

Recognize Revenue, Transfer Funds, and
Execute Contract for Development and
Demonstration of Medium-Duty
Zero-Emission Electric Power Take Off
System Work Truck

Sam Cao

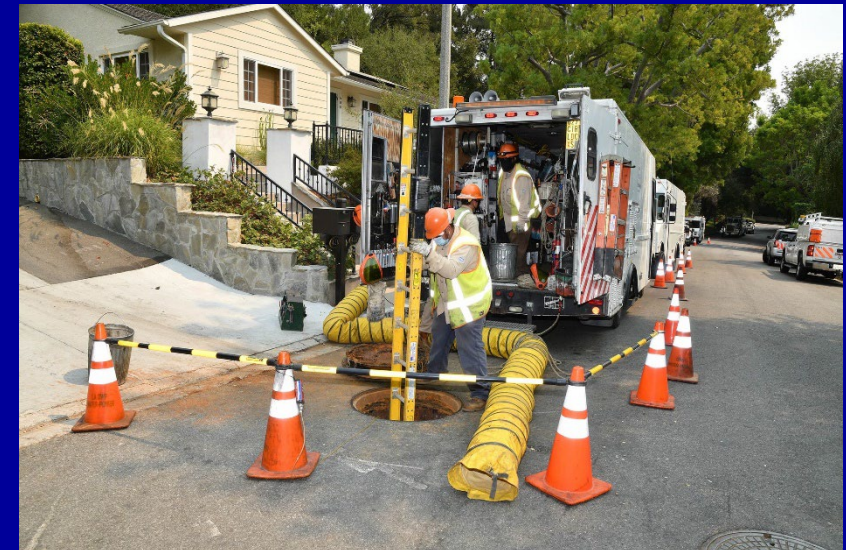
Background

- CARB Zero Emission (ZE) regulations will require trucks to transition to ZE, including work trucks such as bucket trucks, utility vehicles, etc.
- Additional power source is needed for work trucks to be all-electric, including auxiliary equipment on the work truck
- Odyne develops and manufactures an electric Power Take-Off (ePTO) System for auxiliary equipment on medium- and heavy-duty vocational vehicles
- U.S. EPA Clean Air Technology Initiative will fund the first all-electric work truck using a new ePTO system with a medium-duty electric work truck chassis



Proposal

- Odyne proposes to develop a new ePTO system for a medium-duty electric work truck chassis
- Project will include:
 - Design, build and test the new ePTO
 - Integration onto Freightliner's MD MT50e chassis
 - LADWP & SCE to demonstrate the work truck
 - Collect in-use data and fleet feedback



Proposed Project Cost

Proposed Partners	Funding Amount
U.S. EPA (Clean Air Technology Initiative)	\$500,000
Odyne (in-kind)	\$300,000
South Coast AQMD (requested)	\$250,000
<u>Total Project Cost</u>	<u>\$1,050,000</u>

Recommended Actions

- Recognize revenue, upon receipt, up to \$500,000 from U.S. EPA into the Advanced Technology, Outreach and Education Fund (17);
- Transfer \$250,000 from the Clean Fuels Program Fund (31) as cost-share into Fund (17); and
- Authorize the EO to execute a contract with Odyne for the development and demonstration of the ZE ePTO system on all-electric work truck chassis in an amount not to exceed \$750,000 from Fund (17)

Technology Committee Agenda #4

BOARD MEETING DATE: June 2, 2023

AGENDA NO.

PROPOSAL: Approve Additional Funding for the Residential Electric Lawn Mower Rebate Program

SYNOPSIS: The Residential Electric Lawn Mower Rebate Program provides rebates to help offset the purchase cost of new electric lawn mowers. Participants who purchase a new electric lawn mower can apply online for a rebate after scrapping their old gasoline-powered lawnmowers at a participating licensed dismantler. This action is to request an allocation of up to \$250,000 from the Air Quality Investment Fund (27) Rule 2202 funds to continue the year-round Residential Electric Lawn Mower Rebate Program.

COMMITTEE: Technology, May 19, 2023; Recommended for Approval

RECOMMENDED ACTION:

Approve an allocation of up to \$250,000 from the Air Quality Investment Fund (27) Rule 2202 funds to continue the Residential Electric Lawn Mower Rebate Program.

Wayne Nastri
Executive Officer

AK:MW:WS:JYT

Background

In April 2017, the year-round Residential Electric Lawn Mower Rebate Program was launched on a first-come, first-served basis. Residents within South Coast AQMD jurisdiction can receive a rebate based on the purchase price of a new, cordless battery-operated electric lawn mower. Residents are required to turn in their fully functional gasoline-powered lawn mowers to a participating dismantler for permanent destruction. The public can purchase electric mowers from an extensive list of manufacturer-authorized retailers or dealers, including hardware and home improvement stores, and purchases can be made online and in-store.

The rebates are based on retail purchase prices and do not include taxes, fees, accessories, or delivery charges, are as follows:

- \$150 for a purchase price of \$250 or less;
- \$200 for a purchase price of \$251 to \$400; and
- \$250 for a purchase price of more than \$400.

The Residential Electric Lawn Mower Rebate Program continues to be a highly popular rebate program with over 30 manufacturers now providing electric yard equipment. To date over 3,200 lawn mower rebates have been provided, with the majority of the applicants purchasing equipment in-store versus online. Later this year, staff will be recommending the expansion of the Residential Lawn Mower Rebate Program to include other residential-grade lawn and garden equipment (e.g., leaf blowers and hedge trimmers).

Proposal

This action is to approve the use of a total amount not to exceed \$250,000 from the Air Quality Investment Fund (27) Rule 2202 funds to continue the year-round Electric Lawn Mower Rebate Program. This year-round rebate program will continue to provide convenience and flexibility for residents in the South Coast Air Basin, saving on a broad selection of mower brands and price ranges. This rebate program will continue until all funds are expended. Staff may return to the Board to seek approval for additional funds in the future.

Outreach

When the rebate program launched in April 2017, a number of outreach mechanisms were employed. Information is distributed through South Coast AQMD's website, including emails to over 10,000 lawn mower exchange newsletter subscribers. Fliers are distributed at events throughout the region in English, Chinese, Korean and Spanish highlighting the new rebate program and online application form. Also, a short video on the new online application process was highlighted on the South Coast AQMD's webpage. Currently, staff is collaborating with retailers including ACE Hardware, Lowe's, and utility companies such as Southern California Edison, to showcase the benefits of the program and to expand messaging. Finally, a list of both eligible electric lawn mower manufacturers and participating dismantlers are provided on South Coast AQMD's website for easy reference by interested residents.

Benefits to South Coast AQMD

The Residential Electric Lawn Mower Rebate Program scraps older gas-powered lawn mowers and replaces them with zero-emission lawn mowers. Since inception in April 2017, the Residential Electric Lawn Mower Rebate Program has provided emission reductions in the South Coast Air Basin of approximately 1.8 tons/year VOCs, 0.11 tons/year NOx and 0.08 tons/year PM10.

Resource Impacts

There are sufficient funds in the Air Quality Investment Fund (27) Rule 2202 funds.

Agenda Item #4

Approve Additional Funding for the
Residential Electric Lawn Mower
Rebate Program

Yuh Jiun Tan

Background

- Residential Electric Lawn Mower Rebate Program
 - Issues rebates upon purchase of new, cordless battery-powered electric lawn mower
 - Rebate varies based on purchase price
 - Scrapping required
- Rebates based on retail purchase price:

Purchase Price	Rebate Amount
\$250 or less	\$150
\$251 to \$400	\$200
More than \$400	\$250



Funding History

Year	# of Lawn Mowers	Funded Amounts (\$)
2017	336	\$72,350
2018	501	\$104,209
2019	471	\$96,995
2020	561	\$121,096
2021	589	\$126,280
2022	644	\$141,627

- Working to include other types of residential lawn and garden equipment
 - Will return to Board later in the year for Program changes

Proposal

- Approve use of \$250,000 from the Rule 2202 Air Quality Investment Fund (27) to continue the year-round program
- Continue until all funds are expended
- Staff may return to seek additional funds



Outreach

- Fliers printed in English, Chinese, Korean and Spanish
- Short video on South Coast AQMD webpage
- Partnerships with SCE Marketplace, ACE Hardware and Lowe's

Programa de reembolso para la cortacésped eléctrica



La Administración de la calidad del aire de la Costa Sur, (SCAQMD) ofrece ahora el programa todo el año que permitirá a consumidores comprar cortacéspedes eléctricos inalámbricos nuevas en cualquier tienda por Internet. Hay muchos modelos de cortacésped eléctricos para escoger de diferentes fabricantes.



電動割草機回扣計劃

南海岸空氣品質管理局 (SCAQMD) 很高興能夠推出一項年度計劃，鼓勵消費者在任何零售中心或在線購買新的無繩電動割草機。有許多電動割草機型號適用。南海岸空氣品質管理局轄區（橙縣全部地區、洛杉磯縣、河濱縣和聖伯納丁諾縣的多數地區）的居民均符合資格。

回扣計劃領取步驟



Electric Lawn Mower Rebate Program

Watch later Share

Watch on YouTube

PURCHASE PRICE \$251-\$400
ELIGIBLE REBATE AMOUNT \$200

PURCHASE PRICE \$201-\$400
ELIGIBLE REBATE AMOUNT \$150

PURCHASE PRICE \$401-\$600
ELIGIBLE REBATE AMOUNT \$250

Recommended Action

Approve allocation of up to \$250,000 from the Air Quality Investment Fund (27) Rule 2202 to continue the Residential Electric Lawn Mower Rebate Program