

BOARD MEETING DATE: December 2, 2022

AGENDA NO. 23

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a hybrid meeting on Friday, November 18, 2022. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Michael A. Cacciotti, Acting Chair
Technology Committee

AK:psc

Committee Members

Present: Mayor Michael Cacciotti
Supervisor Andrew Do
Board Member Gideon Kracov
Board Member Veronica Padilla-Campos
Mayor Carlos Rodriguez

Absent: Vice Mayor Rex Richardson, Committee Chair
Mayor Larry McCallon

Call to Order

Acting Chair Michael Cacciotti called the meeting to order at 12:05 p.m.

For additional details of the Technology Committee Meeting, please refer to the [Webcast](#).

ACTION ITEMS:

- 1. Appropriate Funds and Authorize Execution of Grant Agreements to Replace Onboard CNG Fuel Tanks on School Buses, and Recognize Funds, Execute Contracts and Reimburse the General Fund for Zero-Emission School Bus Funding Using CARB Supplemental Environmental Project Funds**

Since 2001, South Coast AQMD has replaced over 1,800 high polluting diesel school buses with CNG and battery electric buses. The fuel tanks on these CNG school buses have a manufacturer's service life of approximately fifteen years before needing to be replaced. In November 2019, the Board approved \$3 million for the onboard CNG Tank Replacement Program to assist schools with replacing CNG fuel tanks and these funds are nearly exhausted. In addition, CARB is providing \$2.9 million in Supplemental Environmental Project (SEP) funds to South Coast AQMD for replacing diesel school buses with zero-emission buses by contracting with local school districts from a Board-approved backup project list. These actions are to: 1) appropriate \$3 million from the Carl Moyer Program AB 923 Fund (80) to replace onboard CNG fuel tanks on public school buses; 2) authorize execution of grant agreements on a first-come, first-served basis to replace onboard CNG fuel tanks until funds are exhausted; 3) recognize up to \$2.9 million into the CARB SEP Special Revenue Fund (87); 4) execute contracts with local school districts to replace diesel school buses with zero-emission buses; and, 5) reimburse the General Fund for administrative costs of up to \$196,040 from the CARB SEP Special Revenue Fund (87).

Mayor Rodriguez commented that he does not have a financial interest but is required to identify for the record that he is the committee member for the Placentia-Yorba Linda Unified School District which is involved in this item.

Board Member Padilla-Campos inquired about the average cost to replace a CNG tank. Staff replied that the average funding is \$20,000 per CNG tank. Board Member Padilla-Campos also asked how the backup list used for the CARB SEP is prioritized. Staff stated that due to limited funding and oversubscription from the last Lower-Emission School Bus Program solicitation, the backup list consisted of school districts that were not on the main project list.

Mayor Rodriguez asked staff how long it will take to deplete the \$3M and how the CNG tank replacements will be determined. Staff replied that the spend down rate will be approximately 2-3 years and that the CNG tank replacements will be a first-come, first-served basis. For additional details, please refer to the [Webcast](#) beginning at 7:05.

Moved by Do; seconded by Padilla-Campos; unanimously approved.

Ayes: Cacciotti, Do, Padilla-Campos, Rodriguez

Noes: None

Abstain: None

Absent: Kracov, McCallon, Richardson

2. Issue RFPs, Execute Contracts and Approve Vouchers for the Commercial Electric Lawn and Garden Equipment Incentive and Exchange Program

Since 2017, South Coast AQMD has implemented the Commercial Electric Lawn and Garden Equipment Incentive and Exchange Program using funding from U.S. EPA's Targeted Airshed Grant Program. In December 2021, the Board recognized \$2,167,936 from U.S. EPA's FY 2021 Targeted Airshed Grant Program and \$1,169,169 in South Coast AQMD match share. In June 2022, the Board recognized an additional \$5,000,000 from Carl Moyer State Reserve funds for FY 2021-22 for commercial lawn and garden equipment projects eligible under the Carl Moyer Program. These actions are to issue RFPs to solicit outreach support as well as for assistance regarding pricing and retailer lists from commercial-grade electric lawn and garden equipment manufacturers and to authorize the Executive Officer to execute contracts with, and approve vouchers to be issued to, qualified retailers and execute a contract for outreach support in an amount not to exceed \$70,000 using up to \$50,000 from the administrative portions of the Carl Moyer Program Fund (32) and \$20,000 from the Advanced Technology, Outreach and Education Fund (17).

Board Member Padilla-Campos asked staff to further clarify the voucher process, and asked if the new Lawn and Garden Program is targeting larger businesses. Staff replied that while the new Lawn and Garden Program accommodates both smaller commercial gardeners/landscapers as well as larger businesses, schools and local governments, there is a similar statewide Lawn and Garden Program known as CORE, which focuses specifically on small businesses.

Mayor Cacciotti commented that past outreach efforts were made by an independent contractor through in-person demonstrations of new battery-powered Lawn and Garden equipment and inquired if scrapping old Lawn and Garden equipment is required, if cities qualify under the CORE Program, and what are the funding percentages. Staff replied that scrapping is a requirement under the new Lawn and Garden Program, but for entities with no equipment to scrap, the statewide CORE Program does not have a scrapping requirement. Staff added that city entities will not be eligible for CORE, and that funding under the EPA TAG grant in Coachella Valley will be up to 50 percent, and up to 85 percent or funding cap limits under the Carl Moyer State Reserve Funds for Lawn and Garden equipment.

Ranji George, public member, suggested to track spent batteries, incorporate recycling processes in the new Lawn and Garden Program and prioritize fuel cell and sustainable battery technologies.

Moses Huerta, public member, asked staff about the availability of funds and if any additional outreach is provided. Staff replied that while funding is available for program implementation, the online portal for participating retailers will track and show program balance in real-time. Also, staff stated that a broad outreach plan will

be implemented through social media, AB 617 community meetings, and other efforts to further expand the new L&G Program. For additional details, please refer to the [Webcast](#) beginning at 16:45.

Moved by Padilla-Campos; seconded by Do; unanimously approved.

Ayes: Cacciotti, Do, Padilla-Campos, Rodriguez

Noes: None

Abstain: None

Absent: Kracov, McCallon, Richardson

3. Adopt Resolution Recognizing Funds for FY 2022-23 Carl Moyer Program and Issue Program Announcements for Carl Moyer and SOON Programs

The Carl Moyer and SOON Programs provide incentive funding to owners of diesel engines and equipment to retrofit, repower, or replace their engines with newer and cleaner models that exceed regulatory requirements. These actions are to: 1) Adopt a Resolution recognizing up to \$47 million in Carl Moyer Program grant funds from CARB with its terms and conditions for FY 2022-23; and 2) Issue Program Announcements for “Year 25” of the Carl Moyer Program and the SOON Program to solicit applications for eligible zero and low-emitting on- and off-road vehicles and equipment, including marine vessels and locomotives, and supporting infrastructure.

Board Member Kracov commented that he does not have a financial interest but is required to identify for the record that he is a Board Member of CARB, which is involved in this item.

For additional details, please refer to the [Webcast](#) beginning at 41:00.

Moved by Do; seconded by Rodriguez; unanimously approved.

Ayes: Cacciotti, Do, Kracov, Padilla-Campos, Rodriguez

Noes: None

Abstain: None

Absent: McCallon, Richardson

INFORMATIONAL ITEM:

4. Lithium Battery Recycling: The ReCell Center in Argonne National Laboratory

Jeffry Spangenberg, the ReCell Center at Argonne National Laboratory, provided a summary presentation of ReCell’s work to evaluate and advance cost effective and sustainable recycling of end-of-life advanced batteries.

Board Member Kracov supported the Li-ion battery recycling technology and the development of the technology itself as well as related policies and regulations to accelerate the deployment of the technology.

Board Member Cacciotti inquired about the recent status of the recycling industry. Mr. Spangenberg responded that there are many recyclers coming to the market, but also mentioned the current difficulties of battery recycling due to various types of battery shapes and different chemistries.

Mr. George inquired about characteristics for lithium iron phosphate and Li-NMC from economic and environmental perspectives. Mr. Spangenberg responded that each specific type of Li-ion battery has their own benefits and downsides. Mr. George responded to urge policy development to avoid landfilling battery waste.

Mr. Huerta inquired about the safety issue of electric vehicles compared to hybrid vehicles. Jeffrey Spangenberg responded that any critical safety issues of Li-ion batteries from the electric vehicles have not occurred yet, but any potential issues can be addressed as market volume increases. For additional details, please refer to the [Webcast](#) beginning at 47:25.

OTHER MATTERS:

6. Other Business

There was no other business to report.

7. Public Comment Period

Mr. George expressed concern regarding battery recycling policy, and the use of hydrogen fuel and lithium iron phosphate technology. For additional details, please refer to the [Webcast](#) beginning at 1:15:19.

8. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, January 20, 2022, at 12 noon.

Adjournment

The meeting adjourned at 1:16 p.m.

Attachment

Attendance Record

ATTACHMENT

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TECHNOLOGY COMMITTEE MEETING
Attendance Record – November 18, 2022**

Mayor Michael Cacciotti	South Coast AQMD Board Member
Supervisor Andrew Do	South Coast AQMD Board Member
Board Member Gideon Kracov	South Coast AQMD Board Member
Board Member Veronica Padilla-Campos.....	South Coast AQMD Board Member
Mayor Carlos Rodriguez.....	South Coast AQMD Board Member
Chris Wangsaporn	Board Consultant (Do)
Amy Wong.....	Board Consultant (Padilla-Campos)
Matt Holder.....	Board Consultant (Rodriguez)
Mark Abramowitz	Public Member
Casey Corliss.....	Public Member
Ranji George	Public Member
Moses Huerta	Public Member
Catherine Smith.....	Public Member
Jeffrey Spangenberg	Argonne National Laboratory
Derrick Alatorre	South Coast AQMD Staff
Jason Aspell	South Coast AQMD Staff
Philip Crabbe III.....	South Coast AQMD Staff
Seungbum Ha	South Coast AQMD Staff
Maryam Hajbabaei	South Coast AQMD Staff
Sheri Hanizavareh	South Coast AQMD Staff
Mark Henninger	South Coast AQMD Staff
Aaron Katzenstein	South Coast AQMD Staff
Farzaneh Khalaj.....	South Coast AQMD Staff
Kathryn Higgins	South Coast AQMD Staff
Patricia Kwon.....	South Coast AQMD Staff
Jason Low	South Coast AQMD Staff
Wayne Nastri.....	South Coast AQMD Staff
Susan Nakamura.....	South Coast AQMD Staff
Penny Shaw Cedillo	South Coast AQMD Staff
Walter Shen.....	South Coast AQMD Staff
Lisa Tanaka	South Coast AQMD Staff
Nick Volpone	South Coast AQMD Staff
Mei Wang.....	South Coast AQMD Staff
Michelle White.....	South Coast AQMD Staff
Paul Wright	South Coast AQMD Staff
Fan Xu	South Coast AQMD Staff
Alyssa Yan	South Coast AQMD Staff