

BOARD MEETING DATE: October 6, 2022

AGENDA NO. 27

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting remotely on Friday, September 16, 2022. The following is a summary of the meeting.

RECOMMENDED ACTION:  
Receive and file.

Rex Richardson, Chair  
Technology Committee

AK:psc

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### **Committee Members**

Present: Supervisor Andrew Do  
Board Member Gideon Kracov  
Mayor Larry McCallon  
Board Member Veronica Padilla-Campos  
Vice Mayor Rex Richardson, Chair  
Mayor Carlos Rodriguez

Absent: None

### **Call to Order**

Chair Richardson called the meeting to order at 12:10 p.m.

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

### **ACTION ITEMS:**

#### **1. Transfer Funds to Assist Small Fleets in Purchasing Low NOx and Zero-Emission Trucks Under the Voucher Incentive Program**

South Coast AQMD has implemented the Carl Moyer On-Road Heavy-Duty Vehicles Voucher Incentive Program (VIP) since 2009. The program is experiencing

higher demand due to recently increased funding amounts and an upcoming compliance deadline under the CARB Truck & Bus Regulation. Therefore, additional funds are needed to implement truck projects to assist small fleets in purchasing low NOx and zero-emission replacement trucks under the VIP. This action is to transfer up to \$10 million from the Carl Moyer Program AB 923 Special Revenue Fund (80) to the VIP Fund (59) to implement truck projects.

Board Member Padilla-Campos inquired if additional funding will be distributed between Near-Zero and ZE options. Staff clarified that due to the first-come first-served nature of the VIP, the replacement technology option is solely at the applicant's discretion.

Ranji George, public member, expressed concerns with the recycling of battery technology associated with ZE trucks and encouraged the committee to consider this impact. For additional details, please refer to the [Webcast](#) beginning at 12:08.

Moved by McCallon; seconded by Kracov; unanimously approved.

Ayes: Do, Kracov, McCallon, Padilla-Campos, Richardson, Rodriguez  
Noes: None  
Abstain: None  
Absent: None

## **2. Amend Contracts for Technical Assistance with Incentive Program Implementation and Carl Moyer Program Awards**

In April 2021, the Board released an RFQ for technical assistance with South Coast AQMD's Technology Advancement activities and implementation efforts. A contract with Green Paradigm Consulting, Inc. was executed to provide technical assistance with Carl Moyer and Community Air Protection program implementation. Also, in January 2022, the Board approved awards for projects received under Program Announcements for the Carl Moyer and Surplus Off-Road Opt-In NOx (SOON) incentive programs. Staff has identified projects that require adjustments and is requesting Board approval to amend awards under the Carl Moyer and SOON programs. These actions are to: 1) amend a contract with Green Paradigm Consulting, Inc. adding \$100,000 (\$50,000 each) from administrative portions of Carl Moyer Fund (32) and Community Air Protection AB 134 Fund (77); and 2) amend Carl Moyer and SOON program awards approved by the Board in January 2022.

Chair Richardson commented that he does not have a financial interest but is required to identify for the record that he is the Vice Mayor for the City of Long Beach, which is involved in this item.

Harvey Eder, Public Solar Power Coalition, commended on the outreach aspect of the program, and suggested further connection with environmental justice communities, local governments, co-ops and municipalities. Mr. Eder encouraged Board Member Padilla-Campos to consider solar advancements. For additional details, please refer to the [Webcast](#) beginning at 19:15.

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

Ayes: Do, Kracov, McCallon, Padilla-Campos, Richardson, Rodriguez

Noes: None

Abstain: None

Absent: None

### **3. Execute Contract to Demonstrate Zero-Emission Port Equipment and Mobile Hydrogen Refueler**

Toyota Tsusho America, Inc. (TAI) is developing a hydrogen mobile refueler that can be used to support fuel cell powered off-road equipment. Under this project a mobile hydrogen refueler will be used to support fuel cell powered cargo handling equipment at the Port of Los Angeles. This action is to execute a contract with TAI to develop a hydrogen mobile refueler in an amount not to exceed \$900,000 from the Clean Fuels Program Fund (31).

Mayor McCallon supported the project to develop the mobile hydrogen refueler to support the fuel cell vehicles at the Port of Los Angeles.

Vice Mayor Richardson commented that the mobile refueler will help wider deployment of zero-emission fuel cell equipment at the port, since the installation of infrastructure has many hurdles such as construction cost and land constraint.

Adrian Martinez, Earthjustice, Mr. George and David Park, Hydrogen Fuel Cell Partnership, expressed support of this project. For additional details, please refer to the [Webcast](#) beginning at 27:10.

Moved by McCallon; seconded by Do; unanimously approved.

Ayes: Do, Kracov, McCallon, Padilla-Campos, Richardson, Rodriguez

Noes: None

Abstain: None

Absent: None

**4. Adopt Resolution to Authorize Participation as CARB At-Berth Regulation Remediation Fund Administrator, Establish Special Revenue Fund, Recognize Funds, and Reimburse General Fund for Administrative Costs**

In May 2022, CARB invited South Coast AQMD to apply to be a Remediation Fund Administrator per the CARB Ocean-Going Vessels At-Berth Regulation. Use of the Remediation Fund supports alternative pathways for compliance with the Ocean-Going Vessels At-Berth Regulation in limited circumstances where operators or ports are otherwise unable to reduce emissions. Monies paid by these entities will be collected into a remediation fund to be managed and distributed by the administrator to fund incentive projects designed to achieve emission reductions. These actions are to: 1) adopt a Resolution authorizing participation in CARB's Remediation Fund Program as a Remediation Fund Administrator, acceptance of the terms and conditions of the Regulation's Remediation Fund administration requirements, and execution of a subsequent Memorandum of Understanding (MOU) with CARB; 2) establish the At-Berth Regulation Remediation Special Revenue Fund (88) upon execution of the MOU; 3) recognize, upon receipt, funds from CARB into Fund (88); and 4) reimburse the General Fund for up to 10 percent from the At-Berth Regulation Remediation Special Revenue Fund (88) for administrative costs to implement funding towards incentive programs.

Chair Richardson and Board Member Kracov commented that they do not have a financial interest but is required to identify for the record that he is the Vice Mayor for the City of Long Beach, which is involved in this item.

Mayor McCallon inquired if there are geographic limitations on using remediation funds since inland communities are impacted by goods movement activities that originate at the ports. Staff responded that remediation funds can be used on projects located within the entire Air Basin. For additional details, please refer to the [Webcast](#) beginning at 39:05.

Moved by Kracov; seconded by McCallon; unanimously approved.

Ayes: Do, Kracov, McCallon, Padilla-Campos, Richardson, Rodriguez  
Noes: None  
Abstain: None  
Absent: None

## **INFORMATIONAL ITEM:**

### **5. AQMD Introduction to Cummins Electrolyzers**

Henry Ma, Business Development & Sales Manager at Cummins Inc., presented on the fundamentals of electrolyzers and how electrolyzers can support the growing demand for renewable hydrogen as well as Cummins' experience in commercial scale electrolyzer deployment and operation. . For additional details, please refer to the [Webcast](#) beginning at 46:55.

Vice Mayor Richardson commented that costs are an issue as the Ports' transition to 100 percent zero-emission technologies and renewable hydrogen is a much-needed path to support these efforts. Vice Mayor Richardson also commented that new federal programs like the Inflation Reduction Act will support efforts to use electrolyzers to generate renewable hydrogen from excess renewable electricity.

Board Member Padilla-Campos asked about the size and footprint of the electrolyzers. Mr. Ma explained that the containers in the HyLYZER 500 use two standard 40 ft ISO shipping containers which are spaced 8 feet apart. Larger electrolyzers will require more space. The footprint is highly dependent on the type of electrolyzer technology. Electrolyzers with Alkaline technology will be much larger in size compared to Proton Exchange Membrane (PEM) electrolyzers.

Mr. Martinez mentioned that Cummins is still part of the Engine Manufacturers Association (EMA), which has gone against CARB and EPA low emission NOx regulations and the California waiver but noted that Cummins recused themselves from these efforts in the past. He urged companies that have received public funding to not be part of efforts against low NOx regulations. For additional details, please refer to the [Webcast](#) beginning at 46:56.

## **OTHER MATTERS:**

### **6. Other Business**

Mayor McCallon thanked Vice Mayor Richardson.

### **7. Public Comment Period**

Mr. Eder expressed frustrations with some of the administrative procedures of the South Coast AQMD. For additional details, please refer to the [Webcast](#) beginning at 1:06:39.

Mr. George expressed concern regarding the use of battery technologies, the need for battery recycling centers, and the use of hydrogen fuel and lithium iron phosphate technology. For additional details, please refer to the [Webcast](#) beginning at 1:10:10.

**8. Next Meeting Date**

The next regular Technology Committee meeting is scheduled for Friday, October 21, 2022, at noon.

**Adjournment**

The meeting adjourned at 1:11 p.m.

**Attachment**

Attendance Record

## **ATTACHMENT**

### **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT TECHNOLOGY COMMITTEE MEETING**

**Attendance Record – September 16, 2022**

Supervisor Andrew Do .....	South Coast AQMD Board Member
Board Member Gideon Kracov .....	South Coast AQMD Board Member
Mayor Larry McCallon.....	South Coast AQMD Board Member
Board Member Veronica Padilla-Campos.....	South Coast AQMD Board Member
Vice Mayor Rex Richardson.....	South Coast AQMD Board Member
Mayor Carlos Rodriguez.....	South Coast AQMD Board Member

Chris Wangsaporn .....	Board Consultant (Do)
Amy Wong.....	Board Consultant (Padilla-Campos)

Mark Abramowitz .....	Public Member
Chrissy Anecito .....	Public Member
Jerald Cole .....	Public Member
Harvey Eder .....	Public Solar Power Coalition
Scott Gallegos .....	Public Member
Ranji George .....	Public Member
Matt Holder .....	Public Member
Henry Ma .....	Cummins, Inc.
Adrian Martinez .....	EarthJustice
Dan McGiveney .....	SoCalGas
David Park .....	Hydrogen Fuel Cell Partnership

Maria Allen .....	South Coast AQMD Staff
Laurence Brown .....	South Coast AQMD Staff
Philip Crabbe.....	South Coast AQMD Staff
Marjorie Eaton .....	South Coast AQMD Staff
Bahareh Farahani.....	South Coast AQMD Staff
Seungbum Ha .....	South Coast AQMD Staff
Maryam Hajbabaei .....	South Coast AQMD Staff
Sheri Hanizavareh .....	South Coast AQMD Staff
Anissa Heard-Johnson .....	South Coast AQMD Staff
Mark Henninger .....	South Coast AQMD Staff
Kathryn Higgins .....	South Coast AQMD Staff
Aaron Katzenstein .....	South Coast AQMD Staff
Christina Kusnandar .....	South Coast AQMD Staff
Patricia Kwon.....	South Coast AQMD Staff
Tom Lee .....	South Coast AQMD Staff
Joseph Lopat .....	South Coast AQMD Staff
Jason Low .....	South Coast AQMD Staff

Ron Moskowitz .....	South Coast AQMD Staff
Wayne Nastro.....	South Coast AQMD Staff
Susan Nakamura.....	South Coast AQMD Staff
Ashkaan Nikravan .....	South Coast AQMD Staff
Sarah Rees.....	South Coast AQMD Staff
Mary Reichert.....	South Coast AQMD Staff
Penny Shaw Cedillo .....	South Coast AQMD Staff
Walter Shen.....	South Coast AQMD Staff
Yuh Jiun Tan.....	South Coast AQMD Staff
Lisa Tanaka.....	South Coast AQMD Staff
Gregory Ushijima.....	South Coast AQMD Staff
Alejandra Vega.....	South Coast AQMD Staff
Nick Volpone .....	South Coast AQMD Staff
Kristina Voorhees.....	South Coast AQMD Staff
Mei Wang.....	South Coast AQMD Staff
Michelle White.....	South Coast AQMD Staff
Paul Wright .....	South Coast AQMD Staff
Alyssa Yan .....	South Coast AQMD Staff
Andrew Yoon .....	South Coast AQMD Staff