

BOARD MEETING DATE: February 1, 2019

AGENDA NO. 22

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting on Friday, January 18, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Joe Buscaino, Chair
Technology Committee

MMM:pmk

Committee Members

Present: Council Member Joe Buscaino/Chair (videoconference)
Mayor Pro Tem Larry McCallon
Mayor Judith Mitchell
Council Member Dwight Robinson

Absent: Supervisor Janice Hahn and Supervisor V. Manuel Perez

Call to Order

Council Member Buscaino called the meeting to order at 12:02 pm.

ACTION ITEMS:

Chair Buscaino asked the Committee to take Items #2 and 4 on consent. Mayor Pro Tem McCallon commented that he does not have a financial interest, but is required to identify for the record that he is a Board Member of the Southern California Regional Rail Authority (SCRRA) which is involved in Item #4. There were no public comments on either item. On the motion of Chair Buscaino, moved by Mitchell, seconded by Robinson, the committee unanimously approved Items #2 and 4 without objection.

1. Amend Contract to Demonstrate Low NOx Combustion Technology on Refinery Boiler

In September 2017, the Board awarded a contract to ClearSign Combustion Corporation to demonstrate their Duplex™ low NOx combustion technology on a refinery boiler in an amount not to exceed \$320,000 from the Rule 1118 Mitigation Fund (54). Torrance Refining Company was identified as the host site for the demonstration, but they are no longer able to act as the host site due to operational schedule changes and higher than anticipated project costs. However, ClearSign has identified an alternate in-basin refinery to serve as the host site using a smaller-sized heater for the demonstration. This action is to amend the contract with ClearSign, changing the host site to Lunday-Thagard Company dba World Oil Refining and reducing the contract value to an amount not to exceed \$220,000 from the Rule 1118 Mitigation Fund (54). This action is to also authorize the Executive Officer to execute additional no-cost amendments to this contract, as needed.

Mayor Pro Tem McCallon inquired if the flame can be sustained in the ceramic substrate. Staff responded that once the startup burner gets the unit to temperature, the burner is shut off and the ceramic substrate has small chambers that maintain short flames at lower temperatures, similar to the way a radiant heat burner operates.

Mayor Mitchell asked where World Oil Refining is located. Staff responded that the facility is located in South Gate.

Moved by Mitchell; seconded by McCallon; unanimously approved.

Ayes: Buscaino, McCallon, Mitchell and Robinson

Noes: None

Absent: Hahn and Perez

2. Renew SCAQMD's Membership in CaFCP for Calendar Year 2019 and Receive and File California Fuel Cell Partnership Executive Board Meeting Agenda and Quarterly Updates

The Port of Long Beach and its project partners have received \$50,000,000 in funding and the Port of Los Angeles and its project partners have received \$41,122,260 under CARB's Low Carbon Transportation Investments grant solicitation to demonstrate near-zero and zero emissions on-road, off-road and marine vehicles and equipment, including battery electric and hydrogen fuel cell trucks and supporting infrastructure. Total anticipated projects costs are \$102,998,742 and \$82,547,024 for the Ports of Long Beach and Los Angeles, respectively. This action is to execute contracts from the Clean Fuels Program Fund (31) with the Port of Long Beach in an amount not to exceed \$500,000 and the Port of Los Angeles in an amount not to exceed \$1,000,000 for SCAQMD's project cost-share.

3. Execute Contract to Develop Optimal Operation Model for Renewable Electrolytic Fuel Production

The University of California Irvine (UCI) through its Advanced Power and Energy Program is developing a roadmap for deployment of renewable electrolytic hydrogen production facilities in California. This project leverages resources to develop a hydrogen generation model to optimize dispatch and operation of facilities, including impacts on air quality. This action is to execute a contract with UCI in an amount not to exceed \$100,000 from the Clean Fuels Program Fund (31).

Mayor Mitchell inquired about the overall power to gas process and if hydrogen produced is considered renewable. Staff explained the process of using excess renewable electricity that can be used to provide renewable hydrogen for vehicle fuel or routing the hydrogen into the gas pipeline to lower the overall carbon content. Considering that this path may be more efficient than battery storage, this concept is being initiated in Europe. Council Member Robinson supported the work underway at UCI on fuel cells and hydrogen.

Moved by Robinson; seconded by McCallon; unanimously approved.

Ayes: Buscaino, McCallon, Mitchell and Robinson

Noes: None

Absent: Hahn and Perez

4. Amend Contract for Tier 4 Passenger Locomotives and Carl Moyer Program Award

Under the “Year 16” Carl Moyer Program, the Southern California Regional Rail Authority (SCRRA) requested \$58.85 million to cofund the replacement of 17 and the purchase of 3 new Tier 4 locomotives. In September 2015, the Board awarded \$22.85 million to SCRRA from the Carl Moyer Program AB 923 Fund (80), with a commitment to consider the remaining \$36 million over four phases. In December 2016 and 2017, the Board approved \$18 million of the remaining \$36 million. The SCAQMD cost-share of this \$129 million project is only for the replacement component of the project. This action is to amend the contract with SCRRA, adding \$9 million, comprised of \$8.5 million from the Carl Moyer Program AB 923 Fund (80) and \$500,000 from the Advanced Technology, Outreach and Education Fund (17), for a revised award total of \$49.85 million. The remaining \$9 million requested by SCRRA will be considered in a future Board request. This action is to also amend a “Year 19” Carl Moyer award approved in November 2017 to McMillan Farm Management for replacement of two instead of three off-road equipment.

OTHER MATTERS:

5. Other Business

Council Member Robinson mentioned that having a tour of the ports, focusing on rail/ship/trucking advances that have been achieved would be beneficial. With Committee members' concurrence, staff will look into a possible satellite meeting at the ports sometime in 2019 and incorporate a tour.

6. Public Comment Period

Sam Anderson, Transportation Manager of Redlands Unified School District, and the Chapter 1, Orange County President of CA Association of School Transportation Officials (CASTO). Mr. Anderson commented that SCAQMD changed the emission levels for the Lower Emission School Bus Program after the Program Announcement, and he recommended the SCAQMD honor the 0.2 g/bhp-hr NOx emission level specified in the Program Announcement. He stated a preference for the propane bus due to this bus meeting the highest safety standards.

Gingi Borg, Director of Transportation of Ocean View School District, and the Chapter 2, Orange County President of CASTO, stated a preference for the propane bus due to the larger driver compartment and crash mitigation systems. She recommended the SCAQMD honor the 0.2 g/bhp-hr NOx emission level specified in the Program Announcement.

Donna Wittenberg, Transportation Operations Supervisor from Anaheim Elementary School District, read a letter from Jesse Chavarria, Director of Transportation thanking the SCAQMD for the school bus replacement program. She continued by stating a preference for the propane bus with the PSI engine meeting the 0.2 g/bhp-hr NOx level since this bus provides high safety standards for children and drivers. She requested that the SCAQMD honor the 0.2 g/bhp-hr NOx emission level specified in the Program Announcement.

Javier Rodriguez, Director of Maintenance, Operations and Transportation for the Garden Grove USD. Mr. Rodriguez requested that SCAQMD honor the 0.2 g/bhp-hr NOx emission level specified in the original Program Announcement. He stated a preference for the propane bus and commented that the other option with a Roush engine is a conversion from gasoline to propane. He commented that the IC bus has an ergonomically sound driver compartment and meets their safety standards.

Jason Hohalek of Creative Bus Sales, a dealer of the IC bus product, commented that the Program Announcement allowed for 0.2 g/bhp-hr NOx certified engines, and that they have this engine ready to be delivered to the school districts. However, when the grants were issued in April 2018, the emission level was reduced to 0.05 g/bhp-hr NOx.

Mr. Hohalek explained that PSI was in agreement to have the 0.05 g/bhp-hr engine certified and ready to meet the delivery requirement in November, but is not able to meet this timeline. PSI is now focusing its efforts on certification of the 0.02 g/bhp-hr NOx engine which will not be ready until 2020. He requested the SCAQMD honor the 0.2 g/bhp-hr NOx emission level specified in the original Program Announcement so that the buses can be delivered by November.

Council Member Buscaino expressed his appreciation to all members of the public providing comment. Staff will work with the Committee Chair and the Executive Officer to agendize future follow-up.

7. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, February 15, 2019 at noon.

Adjournment

The meeting adjourned at 12:42 p.m.

Attachment

Attendance Record

ATTACHMENT

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TECHNOLOGY COMMITTEE MEETING
Attendance Record – January 18, 2019**

Council Member Joe Buscaino (videoconference)	SCAQMD Board Member
Mayor Pro Tem Larry McCallon	SCAQMD Board Member
Mayor Judith Mitchell	SCAQMD Board Member
Council Member Dwight Robinson	SCAQMD Board Member
Sam Anderson	Redlands Unified School District
Gingi Borg	Ocean View School District
Todd Fraissa	Buswest
Sue Gornick	World Oil Corp.
Jason Hohalek	Creative Bus Sales
Matt Hosie	ClearSign Combustion Corp.
Joe Ordonez	Buswest
Steve Sock	ClearSign Combustion Corp.
Donna Wittenberg	Anaheim Elementary SD
Tammy Yamasaki	Southern California Edison
Al Baez	SCAQMD Staff
Naveen Berry	SCAQMD Staff
Marjorie Eaton	SCAQMD Staff
Mike Garibay	SCAQMD Staff
Seungbum Ha	SCAQMD Staff
Joseph Impullitti	SCAQMD Staff
Pat Krayser	SCAQMD Staff
Lisa Mirisola	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Veera Tyagi	SCAQMD Staff
Alejandra Vega	SCAQMD Staff
Donna Vernon	SCAQMD Staff
Mei Wang	SCAQMD Staff
Vicki White	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Paul Wright	SCAQMD Staff