

BOARD MEETING DATE: September 5, 2014

AGENDA NO. 27

REPORT: Technology Committee

SYNOPSIS: The Technology Committee met on July 25, 2014. Major topics included Technology Advancement items reflected in the regular Board Agenda for the September Board meeting. A summary of these topics with the Committee's comments is provided. The next Technology Committee meeting will be on September 19, 2014.

RECOMMENDED ACTION:

Receive and file.

John J. Benoit
Technology Committee Chair

MMM:pmk

Attendance: Supervisor John J. Benoit participated by videoconference. Councilman Joe Buscaino, Mayor Judith Mitchell, Mayor Miguel Pulido and Mayor Dennis Yates were absent due to a conflict with their schedules.

SEPTEMBER BOARD AGENDA ITEMS

1. Execute Contract to Develop Ultra-Low Emission Natural Gas Engine for On-Road Class 4 to 7 Vehicles

The Gas Technology Institute (GTI), Ricardo, Power Systems International and the Southern California Gas Company have proposed to collaborate to develop an ultra-low NOx natural gas engine suitable for Class 4 to 7 vehicles. The engine to be developed would target a source category that is amongst the top ten contributors to the NOx emissions inventory in the South Coast Air Basin. This action is to execute a contract with GTI to develop the ultra-low natural gas engine at a cost not to exceed \$750,000 from the Clean Fuels Fund (31), with an estimated total project cost of \$1,800,000.

This item was pulled by staff and will be presented at the next Technology Committee meeting.

2. Issue RFP to Measure Emissions from Refineries and Other Sources Utilizing Advanced Remote Sensing Technologies, Develop Advanced Fenceline Monitoring Systems and Issue RFQ to Procure Wind LIDAR System

Recent advances in optical remote sensing technology have made it possible to quantify fugitive VOC emissions from an entire refinery complex. Two recent SCAQMD-funded pilot studies have demonstrated the capabilities of some of these remote sensing methods. However, it was concluded that longer term measurements and more detailed wind profile information are needed to enhance the accuracy of emissions data. This action is to issue an RFP to conduct a series of measurement campaigns intended to fully characterize and quantify fugitive and stack emissions from large refineries and other important VOC sources and to develop two different remote sensing monitoring systems. This action is to also issue an RFQ and subsequent purchase order to procure a portable wind LIDAR system for continuous wind profile measurements in an amount not to exceed \$250,000 from the Rule 1118 Mitigation Fund (54).

Supervisor Benoit noted that there might be some similarities between the objectives of the five remote sensing monitoring projects proposed during this presentation and those of the Air Quality Sensor Performance Evaluation Center (AQ-SPEC) program discussed during the last Technology Committee meeting on June 2014.

Susan Stark (Tesoro consultant) stated that Tesoro and WSPA are supportive of this program but would like the measurements compared to an established reference. They also indicated they would like to participate in one or more of the proposed measurement studies.

Less than a quorum was present; the Committee Member present recommended that this item be forwarded to the full Board for consideration.

3. Execute and Amend Contracts for Hydrogen Fueling Infrastructure, Phase II of Hydrogen Network Investment Plan and Safety Sensor Demonstration 

On March 7, 2014, the Board awarded three contracts to upgrade and refurbish existing hydrogen fueling infrastructure using funds provided by the CEC. Sufficient funds have become available to fund one additional project as a result of negotiations with awardees. In early 2013 and 2014, the CEC released Notices of Proposed Awards recommending funding for 36 new hydrogen fueling stations, 12 of which are strategically located in Southern California. Additional funds are needed to offset higher than anticipated initial costs to successfully establish these stations. In December 2012, the Board awarded a contract to develop Phase I of the Hydrogen Network Investment Plan (H2NIP), and the cosponsors have requested SCAQMD cofund Phase II. Finally, the SCAQMD has been asked to participate in a demonstration of a hydrogen safety sensor. These actions are to execute and

amend contracts for hydrogen fueling infrastructure, Phase II of the H2NIP and a safety sensor demonstration.

Supervisor Benoit asked why the hydrogen fueling stations comprising the Five City Program were being decommissioned. Staff responded that the technology used to construct the stations was built prior to NFPA standards being promulgated and the stations were only designed to meet 350 bar fueling while modern cars require 700 bar. Moreover, all of the Five City Program stations were placed in City Yards and were not open to the general public. The old technology stations cannot be retrofitted to perform in the same manner as new stations.

Less than a quorum was present; the Committee Member present recommended that this item be forwarded to the full Board for consideration.

4. Recognize Revenue and Execute and Amend Contracts to Construct Natural Gas Fueling Stations

The SCAQMD previously recognized \$2.6 million from CEC to fund new or upgrade existing natural gas stations throughout the Basin. An amendment of the CEC grant is needed to replace two CNG station upgrades with one new LNG station installation and change the funding source for one CNG station upgrade. Additionally, in September 2013 U.S. DOE revenue was recognized into the Science & Technology Advancement's FY 2013-14 Budget to fund a UPS project, but the revenue should have been recognized into the Clean Fuels Fund (31). These actions are to approve the replacement project to be funded by the CEC grant from the Clean Fuels Fund (31), substitute the funding source for one CNG station upgrade to the Clean Fuels Fund (31), recognize U.S. DOE revenue into the Clean Fuels Fund (31), and execute a contract with UPS for an LNG station refurbishment from the Clean Fuels Fund (31).

Less than a quorum was present; the Committee Member present recommended that this item be forwarded to the full Board for consideration.

ITEM FOR DISCUSSION ONLY

5. SCAQMD Plug-in Electric Vehicle Infrastructure Activities (*presentation only*)

At the July 2014 Board Meeting, Board Members inquired about the recent activities to assist with plug-in electric vehicle (PEV) infrastructure, especially as related to multi-unit dwellings. Staff will present on PEV charging deployment, community readiness activities as well as an update on the SCAQMD headquarters infrastructure planning.

Supervisor Benoit asked if a study has been done to determine where most people charge their electric vehicles. Staff responded CARB and the California Center for Sustainable Energy may have this information as part of the California Vehicle Rebate (CVR) project. Staff will look into this.

Buford Crites questioned whether any data exists on model local ordinances requesting chargers in new home construction. Staff will review the Plug-in Electric Vehicle Collaborative Handbook to locate this information.

Supervisor Benoit commented that many questions arise as we think ahead ten years when chargers will be more commonplace in homes and workplaces. Does the employer or employee pay for the charging? How much electricity is consumed either at home/work? At what cost? Shouldn't the cost be more reasonable to charge at home at night vs. during peak demand time during the day at the workplace?

Staff agrees that all of these questions will need to be addressed as we move forward.

6. Public Comment Period

There was no public comment.

7. Other Business

There was no other business.

Next Meeting: September 19, 2014

Attachment

Attendance

Attachment A – Attendance

Supervisor John J. Benoit.....	SCAQMD Governing Board (via VT*)
Mark Abramowitz	Board Assistant (Lyou)
Buford Crites	Board Assistant (JBenoit)
John Olvera, Principal Deputy District Counsel	SCAQMD
Matt Miyasato, STA	SCAQMD
Henry Hogo, STA.....	SCAQMD
Laki Tisopulos, STA	SCAQMD
Fred Minassian, STA.....	SCAQMD
Andrea Polidori, STA.....	SCAQMD
Phil Barroca, STA	SCAQMD
Drue Hargis, STA.....	SCAQMD
Lisa Mirisola, STA	SCAQMD
Larry Watkins, STA	SCAQMD
Mary Leonard, FIN.....	SCAQMD
Naveen Berry, PRDAS.....	SCAQMD
Olga Pikelnaya, PRDAS.....	SCAQMD
Robert Paud, IM	SCAQMD
Penny Shaw Cedillo, STA.....	SCAQMD
Pat Krayser, STA.....	SCAQMD
Rhonda Runyon.....	CARB
Susan Stark.....	Tesoro