BOARD MEETING DATE: October 3, 2014 AGENDA NO. 26

REPORT: Technology Committee

SYNOPSIS: The Technology Committee met on September 19, 2014. Major

topics included Technology Advancement items reflected in the regular Board Agenda for the October Board meeting. A summary of these topics with the Committee's comments is provided. The next Technology Committee meeting will be on October 17, 2014.

RECOMMENDED ACTION:

Receive and file.

John J. Benoit Technology Committee Chair

MMM:pmk

Attendance: Supervisor John J. Benoit and Councilman Joe Buscaino participated by videoconference. Mayor Judith Mitchell and Mayor Dennis Yates were in attendance at SCAQMD headquarters. Mayor Miguel Pulido was absent due to a conflict with his schedule.

OCTOBER BOARD AGENDA ITEMS

1. Execute Contract to Develop Ultra-Low Emission Natural Gas Engine for On-Road Class 4 to 7 Vehicles (continued from 7/25/14 Technology Committee Meeting)

The Gas Technology Institute (GTI), Ricardo, Power Systems International and the Southern California Gas Company have proposed to collaborate to develop an ultralow 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.

Moved by Yates; seconded by Mitchell; unanimously approved.

2. Execute Contracts for FY 2013-14 "Year 16" Carl Moyer Program and Issue Program Announcement for SOON Provision

On June 4, 2014, proposals were received in response to the Program Announcements issued for the "Year 16" Carl Moyer Program and the SOON Provision. These actions are to execute contracts for the "Year 16" Carl Moyer Program and the SOON Provision in an amount not to exceed \$32,346,290, comprised of \$24,993,963 in SB 1107 Fund (32), \$6,738,345 in AB 923 Fund (80) and \$613,982 in accrued interest from the Carl Moyer Program Fund (32). Furthermore, this action is to issue a Program Announcement for the SOON Provision.

Supervisor Benoit recused himself due to a campaign contribution from RRM Properties Ltd., and requested Mayor Yates to chair this item. Councilman Buscaino and Mayor Mitchell also recused themselves from this item, due to their positions on the Board of Directors for the Sanitation Districts of Los Angeles County. As the remaining Committee Member, Mayor Yates recommended this item go directly to the full Board for consideration.

Staff explained that two businesses will be pulled from the list of applicants: for Item E.1, Altfillisch has withdrawn their application; and for Item A.27, J&B Materials, Inc. has not submitted their campaign contribution disclosure form. If the form is received for Item A.27, it will be included on the list to go directly to the Board. Mayor Yates directed these changes be handled accordingly.

3. Issue RFPs to Develop and Demonstrate Police Pursuit Vehicles Powered by CNG or Zero-Emission Range and Conduct Police Pursuit Vehicle Loaner Program

The SCAQMD is currently demonstrating a CNG-powered Ford Crown Victoria as a police pursuit vehicle. However, the production of the Ford Crown Victoria has been discontinued. As such, many law enforcement agencies are exploring the performance of various police pursuit models to replace their existing police vehicles. This action is to issue two RFPs - one RFP to develop and demonstrate a dedicated CNG vehicle and a second RFP to develop and demonstrate a police pursuit vehicle which will operate in a zero-emission range mode (either dedicated or hybrid).

Supervisor Benoit asked for clarification regarding "hardened stems and valves." Staff responded that these engine cylinder components are needed due to the higher operating temperature for CNG engines. Small volume manufacturers need OEMs

to equip the base vehicle with hardened stems and valves in order to certify and verify a CNG conversion kit.

Councilman Buscaino asked if testing can be performed by the Los Angeles Police Department on the police pursuit vehicles. Staff indicated that the Sheriff's Department testing provides information for various police departments to choose appropriate vehicles based on the testing. District staff will reach out to LAPD and other police departments to see if they are interested in participating in the demonstration program. Councilman Buscaino wanted to make sure that we invite the LAPD to participate in the demonstration program and if needed, he would be happy to contact LAPD.

Supervisor Benoit asked that staff ensure that CHP, LA County Sheriff, and LAPD be consulted before award of a contract to ensure that all their needs be addressed in the demonstration program of a police pursuit vehicle.

Moved by Buscaino; seconded by Mitchell; unanimously approved.

4. Execute Contracts to Conduct PEV Smart Grid, Heavy-Duty Truck Innovative Transportation System and Secondary Organic Aerosol Formation Studies University of California Riverside (UCR) CE-CERT continues to expand their programs focused on transportation emissions, their measurement and mitigation. Based on the relevance and potential to address SCAQMD's priorities to reduce NO_x and PM emissions from transportation sources, the following projects are recommended for award related to plug-in vehicle grid impacts, heavy-duty vehicle transportation communication and passenger vehicle aerosol measurement. This action is to execute contracts with UCR CE-CERT to: 1) evaluate PEV utilization in a smart grid; 2) develop an innovative transportation routing system for heavy-duty trucks; 3) quantify ozone and secondary organic aerosol (SOA) formation from gasoline and diesel components; and 4) evaluate the SOA formation potential from gasoline direct injection vehicles; in a total amount not to exceed \$475,000 from the Clean Fuels Fund (31).

Mayor Mitchell asked about V2G charging technologies for PEVs given that most drivers will need the full range of batteries. Staff responded that the technology can be used in the frequency regulation market as a grid service but could also be an additional revenue stream to PEV drivers wanting to sell back excess capacity.

Supervisor Benoit raised a point that drivers may not be able to use their cars on hot summer days because their batteries are depleted from selling back to the grid. Staff responded that the program would be voluntary and that the charging events will last approximately only 15-20 minutes, rather than hours, thus not depleting the batteries completely.

Councilman Buscaino asked if there has been a study to assess the demand on the grid from all the new clean technologies we are pursuing. Mayor Mitchell noted that an SCE representative in the audience was nodding affirmatively that there was sufficient capacity to handle the projected demand

Supervisor Benoit commented that the trucking industry has done extensive work to develop fuel efficient routing programs. Staff responded that the industry models are only focusing on fuel economy whereas as the proposed CE-CERT technology will combine the power consumption with emissions performance data to provide routes that minimize emissions and optimize efficiency.

Moved by Buscaino; seconded by Benoit; unanimously approved.

5. Approve Site Location Change for Hydrogen Fueling Station Upgrade In March 2014, using CEC grant revenue, the Board awarded funds to Air Liquide Industrial U.S. LP to upgrade existing hydrogen fueling infrastructure at LAX. Site issues with the original location now require moving the station to another site in the same vicinity. This action is to approve the site location change for this project.

Mayor Mitchell and Supervisor Benoit both emphasized the importance of working closely with Los Angeles World Airways (LAWA) since the airport will be undergoing extensive changes. The existing hydrogen station awarded for upgrade is at a Clean Energy natural gas station site. The new site will be on LAWA property but should the negotiations for that station fall through, staff requests the flexibility to relocate to another site still serving the LAX region. Councilman Buscaino agreed we want to lower emissions in and around the airport.

Moved by Mitchell; seconded by Buscaino; unanimously approved.

6. PEV Incentives (presentation only)

Staff discussed the different plug-in electric vehicle incentives being offered.

Councilman Buscaino commented that we want to move forward on anything we can do to help motorists plug in. Mayor Yates asked why the utilities aren't partnering with us on incentives, in particular SCE. Mayor Mitchell noted that they are currently prohibited by the CPUC. Staff mentioned the current CPUC rulemaking which may allow the utilities from more fully participating in installing PEV infrastructure.

Supervisor Benoit added that some might argue allowing the utilities to own and operate charging stations could be construed as an unfair advantage. He agreed

that staff should continue this study and recommend a program for the Board to consider.

7. Public Comment Period

There was no public comment.

8. Other Business

Councilman Buscaino mentioned there is a new posting in his newsletter and on the website regarding the lawn mower exchange which was held on September 6 at the Port of Los Angeles.

Mayor Yates stated that the Stanley Cup will be on view at the Chino City Hall on September 24 from 1:45-2:15 p.m.

Next Meeting: October 17, 2014

Attachment

Attendance

Attachment A – Attendance

Supervisor John J. Benoit	SCAQMD Governing Board (via VT)
Councilman Joe Buscaino	SCAQMD Governing Board
Mayor Judith Mitchell	SCAQMD Governing Board (via VT)
Mayor Dennis Yates	SCAQMD Governing Board
Mark Abramowitz	Board Assistant (Lyou)
Marisa Perez	Board Assistant (Mitchell)
Bob Ulloa	Board Assistant (Yates)
John Olvera, Principal Deputy District Counsel	SCAQMD
Matt Miyasato, STA	SCAQMD
Henry Hogo, STA	SCAQMD
Laki Tisopulos, STA	SCAQMD
Randall Pasek, STA	SCAQMD
Dean Saito, STA	SCAQMD
Al Baez, STA	SCAQMD
Richard Carlson, STA	SCAQMD
Brian Choe, STA	SCAQMD
Vicki White, STA	SCAQMD
Sam Atwood, Media	SCAQMD
Naveen Berry, PRDAS	SCAQMD
Kalam Cheung, PRDAS	SCAQMD
Aaron Katzenstein, PRDAS	SCAQMD
Robert Paud, IM	SCAQMD
Isabel Aguilar, STA	SCAQMD
Pat Krayser, STA	SCAQMD
Nancy Noble	ARB
Felix Oduyemi	SCE
Susan Stark	Tesoro