

BOARD MEETING DATE: October 7, 2016

AGENDA NO. 29

REPORT: Technology Committee

SYNOPSIS: The Technology Committee met on September 16, 2016. 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 held on October 21, 2016.

RECOMMENDED ACTION:  
Receive and file.

John J. Benoit  
Technology Committee Chair

MMM:pmk

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**Attendance:** Supervisor John Benoit and Councilmember Joe Buscaino participated by videoconference. Mayor Larry McCallon, Councilmember Judith Mitchell, and Councilmember Dwight Robinson were in attendance at SCAQMD headquarters. Supervisor Janice Rutherford was absent due to a conflict with her schedule.

## OCTOBER BOARD AGENDA ITEMS

### 1. **Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2015-16 Carl Moyer State Reserve Fund Award, and Execute Contracts for FY 2015-16 “Year 18” Carl Moyer Program and SOON Provision**

As agreed in a May 1, 2013 MOU between CAPCOA and CARB, the SCAQMD is to implement the FY 2015-16 Carl Moyer Multidistrict Program. This action is to adopt a resolution recognizing \$3 million in revenue from CARB’s Carl Moyer State Reserve Fund with its terms and conditions for FY 2015-16. On June 1, 2016, the Program Announcements issued for the “Year 18” Carl Moyer Program and SOON Provision closed. These actions are to execute contracts for the “Year 18” Carl Moyer Program and SOON Provision in an amount not to exceed \$31,985,690, comprised of \$25,302,812 from the SB 1107 Fund (32), \$2,812,500 from the SB 1107 Multidistrict Fund (32), \$3,326,453 from the AB 923 Fund (80), and \$543,925 in accrued interest from the Carl Moyer Program Fund (32). Finally, these actions

are to execute contracts from a backup project list as turnback funds become available and to transfer all unallocated AB 923 funds from the Carl Moyer Fund (32) to the Carl Moyer Program AB 923 Special Revenue Fund (80).

*Supervisor Benoit recused himself due to a campaign contribution from West Coast Turf and possibly others. Councilmember Mitchell was asked to chair this item.*


*Moved by Buscaino; seconded by Robinson; unanimously approved.*

*Ayes: Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Abstain: Benoit*

*Absent: Rutherford*

**2. Recognize Funds and Amend Award for Locomotive Replacement Project **

In June 2016, U.S. EPA notified SCAQMD that an award had been approved under the FY 2015-16 Diesel Emissions Reduction Act (DERA) to replace an older diesel locomotive with a new Tier 4 diesel locomotive. On July 8, 2016, the Board awarded a contract to Metropolitan Stevedore Company under the Proposition 1B–Goods Movement Program for the diesel locomotive replacement project. Subsequently, CARB approved additional funds under the Proposition 1B–Goods Movement Program for the replacement project. This action is to recognize up to \$523,809 from U.S. EPA DERA into the Advanced Technology, Outreach and Education Fund (17). These actions are to also amend the award to Metropolitan Stevedore Company to increase project funding in an amount not to exceed \$608,400, comprising \$500,000 from the U.S. EPA DERA funds and \$108,400 from Proposition 1B-Goods Movement Program Fund (81), and to reimburse the General Fund for administrative costs up to \$23,809 necessary to implement the DERA grant.

*Mayor McCallon asked staff the number of locomotives that are being replaced for this project. Staff responded that Metropolitan Stevedore Company (MSC) is replacing one locomotive. Funding for this MSC locomotive replacement project comes from both DERA and Proposition 1B Programs.*

*Councilmember Robinson asked staff the cost of a Tier 4 locomotive. Staff responded that it is about \$3 to \$4 million.*

*Moved by McCallon; seconded by Mitchell; unanimously approved.*

*Ayes: Benoit, Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Absent: Rutherford*

**3. Recognize Funds and Amend Contract for Development, Integration and Demonstration of Ultra-Low Emission Natural Gas Engine for On-Road Heavy-Duty Vehicles **

On November 6, 2015, the Board awarded a contract to Cummins Westport Inc. (CWI) to cofund the development of an 11.9-liter heavy-duty natural gas engine that is 90% cleaner than the current on-road heavy-duty NOx exhaust emissions standard. This award included \$1 million in cost-share funding from the CEC, excluding funding CEC had intended to award directly to CWI. Subsequently, CEC has indicated they will award all project cost-share as pass-through funding to SCAQMD for a total of \$2,000,000. These actions are to recognize funds up to an additional \$1,000,000 into the Clean Fuels Fund (31) and amend the contract with CWI to increase the contract by an additional \$1,000,000 from the Clean Fuels Fund (31).

*Councilmember Mitchell asked staff if the objective of the project is to certify the engine with CARB and U.S. EPA. Staff indicated that is the goal.*

*Moved by Mitchell; seconded by Robinson; unanimously approved.*

*Ayes: Benoit, Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Absent: Rutherford*

**4. Transfer and Appropriate Funds, Amend Contract to Enhance Website Application Process for Enhanced Fleet Modernization Program, and Reimburse Administrative Costs**

Last month, the Board approved continuation of the AB 118 Enhanced Fleet Modernization Program (EFMP) and EFMP Plus-Up for FY 2016-17. Staff proposes to streamline its implementation through an enhanced website application process, which will allow applicants to track their application status. Funds need to be transferred to the General Fund for this effort and to cover other administrative and outreach efforts associated with EFMP implementation. Thus, these actions are to: 1) transfer and appropriate \$175,000 from the HEROS II Special Revenue Fund (56) into Information Management's FY 2016-17 Budget; 2) amend a contract with Varsun eTechnologies to develop an in-house web-based application process for the EFMP in an amount not to exceed \$150,000 and provide EFMP website maintenance for \$25,000; 3) reimburse the General Fund up to \$10,000 from the HEROS II Special Revenue Fund (56) for administrative costs to operate a communications/call-in center; and 4) transfer and appropriate \$70,000 from the HEROS II Special Revenue Fund (56) to Science & Technology Advancement's FY 2016-17 or FY 2017-18 Budget for EFMP marketing and outreach efforts.

*Mayor McCallon inquired about the existing waiting list for the EFMP program and whether additional outreach and marketing are necessary. Staff responded that the waiting list is down to 600 consumers. With the funding approved by the Board last month from the state, staff should be able to process those on the waiting list and seek additional participants for the EFMP program, especially from Orange County and the Inland Empire. Staff indicated that CARB has a requirement that a percentage of the administrative portion of the funds be used for outreach, which includes consumer education on advanced technology vehicles. Staff does not plan on expending funds for direct marketing activities.*

*Councilmember Robinson inquired about the cost of the existing website and the need for the development of a new website. Staff responded the existing website is a static website that was a carryover from a previous program. A new website design would provide applicants the ability to track where they are in the application process and provide staff the ability to track program progress including fund balance.*

*Moved by McCallon; seconded by Mitchell; unanimously approved.*

*Ayes: Benoit, Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Absent: Rutherford*

**5. Recognize Revenue and Appropriate Funds to Engage, Educate and Empower California Communities on Use and Applications of “Low-Cost” Air Monitoring Sensors**

The U.S. EPA awarded SCAQMD a nationwide competitive Science to Achieve Results (STAR) research grant to engage, educate and empower California communities on the use and application of “low-cost” air monitoring sensors. SCAQMD staff will work with Sonoma Technology, Inc., researchers at UCLA and other air pollution control districts to develop and implement methodologies and resources for accomplishing the specific objectives of this project. This action is to recognize up to \$749,820 in revenue into the General Fund and appropriate up to \$670,500 in Science & Technology Advancement’s FY 2016-17, FY 2017-18 and FY 2018-19 Budgets to support this work.

*Councilmember Mitchell asked if staff tests sensors from different vendors and manufacturers. Staff responded in the affirmative. Staff purchases, leases or otherwise acquires commercially available sensors. All sensors are fully evaluated within the SCAQMD’s Air Quality Sensor Performance Evaluation Center (AQ-SPEC) before being deployed in the field.*

*Councilmember Mitchell asked how the SCAQMD or other organizations evaluate the reliability of these air quality sensors. Staff replied that typically the performance of these sensors is evaluated by comparing them to reference “EPA-approved” monitors in the field. SCAQMD’s AQ-SPEC is the only comprehensive sensor testing program in the country that systematically evaluates the performance of commercially available sensors both in the field and in the laboratory. All testing results are publicly available on the SCAQMD website ([www.aqmd.gov/aq-spec](http://www.aqmd.gov/aq-spec)). Before staff deploys sensors in the field, they need to be calibrated to make sure staff can retrieve meaningful and usable data.*

*Mayor McCallon asked how communities are being selected for this project. Staff responded that the six communities that will participate have not yet been identified. Our recruitment efforts will be supported by California Air Pollution Control Officers Association (CAPCOA), the Center for Community Action and Environmental Justice (CCA EJ), and by Communities for a Better Environment (CBE). Also, the sensors will have to be selected for the appropriate air quality issues affecting each community. Staff noted that this will not prevent engaging other communities and deploying additional air quality sensors in other parts of Southern California.*

*Supervisor Benoit requested that the Board be updated on AQ-SPEC. Staff indicated AQ-SPEC is a very successful program and has received a number of external grants from EPA. Staff will update the Board on the progress made by AQ-SPEC at the November Board meeting. A summary of all field and laboratory testing results will be presented along with lessons learned from the past two years of AQ-SPEC activities.*

*Moved by Mitchell; seconded by Robinson; unanimously approved.*

*Ayes: Benoit, Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Absent: Rutherford*

## **6. Recognize Revenue, Transfer Funds, and Execute Contract to Develop and Demonstrate Fuel Cell Heavy-Duty Truck**

On December 5, 2014, the Board recognized revenue from the DOE for the Zero Emission Cargo Transport project to develop and demonstrate zero emission drayage trucks. International Rectifier, one of the technology providers, has decided not to continue with the project, and staff and DOE have invited Hydrogenics USA Inc. to join the project and develop a fuel cell range-extended drayage truck. These actions are to recognize revenue from the Ports’ Technology Advancement Program (TAP) up to \$283,495, transfer \$283,495 as a temporary loan from the Clean Fuels Fund to the Advanced Technology Goods Movement Fund, and execute a contract with

Hydrogenics USA Inc. to develop a fuel cell range-extended drayage truck in an amount not to exceed \$1,109,279, comprising the \$283,495 from the Ports' TAP and \$825,784 from DOE funds previously awarded to International Rectifier.

*Staff presented a summary of the project to cost-share the development and demonstration of the fuel cell truck under the Zero Emission Cargo Transport project. Supervisor Benoit inquired about the truck's ability to plug in for a charge. Staff clarified that the battery is operated in charge-sustaining mode and does not need to be charged from the grid.*

*Councilmember Robinson inquired about the funds that were expended with the initial proponent and an explanation for the cost of \$2.4 Million for one truck. Staff clarified that previously no funds were expended and that the cost for one truck is about \$1.1 Million. The remainder is a one-time engineering research and development cost necessary to design, model and simulate performance before building the vehicle, mainly funded by CEC. Councilmember Buscaino commented that the local ports have been waiting for this type of technology.*

*Moved by Buscaino; seconded by Robinson; unanimously approved.*

*Ayes: Benoit, Buscaino, McCallon, Mitchell, Robinson*

*Noes: None*

*Absent: Rutherford*

## **7. Other Business**

*There was no other business.*

## **8. Public Comments**

*There were no public comments.*

**Next Meeting: October 21, 2016**

## **Attachment**

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
TECHNOLOGY COMMITTEE MEETING  
Attendance Roster – September 16, 2016**

Supervisor John J. Benoit (via videoconference).....	SCAQMD Governing Board
Councilmember Joe Buscaino (via videoconference).....	SCAQMD Governing Board
Mayor Larry McCallon .....	SCAQMD Governing Board
Councilmember Judith Mitchell.....	SCAQMD Governing Board
Councilmember Dwight Robinson.....	SCAQMD Governing Board
Mark Abramowitz .....	Board Consultant (Lyou)
Ron Ketcham .....	Board Consultant (McCallon)
Wayne Nastri.....	SCAQMD Staff
Jill Whynot .....	SCAQMD Staff
Michael O’Kelly.....	SCAQMD Staff
Derrick Alatorre .....	SCAQMD Staff
Ruby Fernandez.....	SCAQMD Staff
Matt Miyasato.....	SCAQMD Staff
Henry Hogo .....	SCAQMD Staff
Jason Low.....	SCAQMD Staff
Naveen Berry.....	SCAQMD Staff
Andrea Polidori .....	SCAQMD Staff
Dean Saito .....	SCAQMD Staff
Richard Carlson.....	SCAQMD Staff
Drue Hargis .....	SCAQMD Staff
Joseph Impullitti.....	SCAQMD Staff
Adewale Oshinuga .....	SCAQMD Staff
Vicki White .....	SCAQMD Staff
Gregory Rowley .....	SCAQMD Staff
Alejandra Vega.....	SCAQMD Staff
Penny Shaw Cedillo .....	SCAQMD Staff
Pat Krayser .....	SCAQMD Staff