

BOARD MEETING DATE: March 4, 2016

AGENDA NO. 5

PROPOSAL: Authorize Acquisition of Four Advanced Technology Vehicles for SCAQMD's Alternative Fuel Vehicle Demonstration Program 

SYNOPSIS: SCAQMD tests and demonstrates new vehicles with low- and zero-emission technologies as they become available. This action is to purchase three Chevrolet Volts and one Toyota RAV4 EV that are in current use in the SCAQMD fleet and with current carpool lane access stickers, prior to expiration of their leases. The total cost to SCAQMD for these four vehicles will not exceed \$107,000 from the Clean Fuels Fund (31).

COMMITTEE: Technology, February 19, 2016; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the transfer of \$13,689 from the Clean Fuels Fund (31) to the FY 2015-16 Budget of Science & Technology Advancement (Org. 49), Capital Outlays Major Object; and
2. Authorize the Procurement Manager to waive publication requirements and competitive bid process to purchase three 2013 Chevrolet Volts and one 2012 Toyota RAV4 EV prior to expiration of current leases for a cost not to exceed \$107,000.

Barry R. Wallerstein, D.Env.  
Executive Officer

MMM:FM:NB:LHM

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**Background**

The SCAQMD demonstrates a number of advanced technology vehicles to help support the development and deployment of cleaner advanced technology and educate consumers at public outreach events. There are currently a variety of plug-in hybrid electric, electric, and fuel cell vehicles in the SCAQMD Alternative Fuel Vehicle Demonstration Program.

In February 2013, the Board approved funding for three Chevrolet Volts and one Toyota RAV4 EV, which were leased for 36 months.

#### Chevrolet Volt

The 2013 Chevrolet Volt is a full performance four-passenger electric sedan with extended range. It is CARB certified as an enhanced Advanced Technology Partial Zero-Emission Vehicle (ATPZEV). The 2013 Volt is designed to travel about 38 miles (improved from 35 miles for previous model years) at speeds up to 100 mph using the on-board battery pack exclusively, and the gasoline engine serves as a range extender providing several hundred miles of travel. The Volt powertrain includes a 150 hp electric motor which produces 273 lb-ft torque and a 1.4L, 80 hp four-cylinder gasoline engine. Energy is stored on board in a 16-kWh, T-shaped lithium-ion battery, which is currently supplied by Compact Power (LG Chem).

When the Volt is plugged in routinely and used for short trips, the engine may not need to start for extended periods of time. The Volt will fully recharge in 10–15 hours using a standard 120V household outlet and the power cord supplied by GM. Using a dedicated 240V Level 2 charger, the Volt will fully recharge in about 4 hours. The charging can be scheduled for off-peak hours, which can provide additional environmental benefits and lower cost. The Volt uses the SAE J1772 connector, which was adopted as the recommended practice for Level 1 and Level 2 charging for passenger vehicles in the United States in January 2011. CARB-certified enhanced ATPZEVs, including 2012 and newer Volts, qualify for solo-driver carpool lane use with green decals until January 1, 2019.

Additional features include navigation to assist with locating charging stations, front seat heaters for improved overall efficiency, and back-up camera for better visibility and safety. Bluetooth capability plus three years of OnStar service are provided standard on all Volts.

#### Toyota RAV4 EV

The Toyota RAV4 EV is a full performance five-passenger electric SUV. It has an EPA-rated drive range of 92 miles in normal-charge mode and 113 miles in extended-charge mode. There are two driving modes - normal and sport. In sport mode, top speed is 100 mph, with acceleration of 0–60 mph in 7 seconds. The RAV4 EV has a 40 kWh advanced lithium-ion battery pack provided by Tesla and a 154 hp electric motor.

The RAV4 EV will fully recharge in about 6 hours using a dedicated 240V Level 2 charger. Using a standard 120V household outlet and the power cord supplied by Toyota, full recharge will take about two days. The charging can be scheduled for off-peak hours, which can provide additional environmental benefits and lower cost. The RAV4 EV uses the SAE J1772 connector, which was adopted as the recommended practice for Level 1 and Level 2 charging for passenger vehicles in the United States in

January 2011. CARB-certified ZEVs, including the Toyota RAV4 EV, qualify for solo-driver carpool lane use with silver decals until January 1, 2019.

Additional features include navigation with EV applications to assist with locating charging stations, front seat heaters for improved overall efficiency, back-up camera for better visibility and safety, and Bluetooth capability.

### **Proposal**

Based on driver feedback, these vehicles are well-suited to meet SCAQMD's needs, including carpool lane access, zero emission miles and knowledge of vehicle history. Staff recommends the purchase of these vehicles prior to lease expiration in order to maintain these attributes, especially the carpool lane access stickers which are not currently available for new plug-in hybrid vehicles.

This action is to purchase three 2013 Chevrolet Volt California low-emission extended-range electric vehicles and one 2012 Toyota RAV4 EV, at the end of their current leases, for SCAQMD's Alternative Fuel Vehicle Demonstration Program at a cost not to exceed \$107,000 from the FY 2015-16 Budget of Science & Technology Advancement, Capital Outlays Major Object. Purchase of these vehicles provides continued carpool lane access until January 1, 2019, and will incorporate these advanced technology vehicles for long-term use as our fleet transitions to increase the percentage of ZEV miles.

### **Benefits to SCAQMD**

The proposed project is included in the *Technology Advancement Office Clean Fuels Program 2016 Plan Update* under "Electric/Hybrid Technologies & Technologies." The purpose of including a variety of advanced technology passenger vehicles in SCAQMD's Alternative Fuel Vehicle Demonstration Program is to showcase alternative fuel vehicles and illustrate SCAQMD's own commitment to develop and deploy these advanced technologies. The SCAQMD supports CARB's zero-emission vehicle requirement and strives to educate public and private organizations regarding the benefits and characteristics of zero and near-zero emission vehicles.

### **Procurement Process**

Section VIII B(2) of the Procurement Policy and Procedure identifies six provisions under which detailed specifications or obtaining of bids may be waived by the Executive Officer or his designee. This request is made under provision B.2.c.(2): "The desired services are available from only the sole-source based upon one or more of the following reasons: The project involves the use of proprietary technology;" The request to waive publication requirements in Section VII.A of the Procurement Policy and Procedure is because the vehicles are already in use and will be acquired by paying the residual value plus tax at the end of the leases.

**Resource Impacts**

The total cost to purchase these four vehicles will not exceed \$107,000 from the FY 2015-16 Budget of Science & Technology Advancement (Org. 49), Capital Outlays Major Object.

The cost for the vehicles are as follows:

<b>Vehicle</b>	<b>Cost</b>	<b>No. of Vehicles</b>	<b>Total*</b>
2013 Chevrolet Volts (with Navigation package, seat heaters, and back-up camera)	\$27,200	3	\$81,600
2012 Toyota RAV4 EV	\$25,400	1	\$25,400
Total			\$107,000

\*includes tax and all fees

In addition to the estimated \$93,311 remaining in the FY 2015-16 Budget of Science & Technology Advancement, Capital Outlays Major Object, upon approval, an additional \$13,689 will be transferred from the Clean Fuels Fund (31) to complete the transactions.

Sufficient funds are available in the Clean Fuels Fund, established as a special revenue fund resulting from the state-mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.