

BOARD MEETING DATE: October 5, 2018

AGENDA NO. 5

PROPOSAL: Develop and Demonstrate Zero Emissions Battery-Operated Switcher Locomotive

SYNOPSIS: The City of Los Angeles Harbor Department was awarded \$2,768,830 by CARB for the Zero Emissions Track-Miles Demonstration Project and has subsequently contracted with Pacific Harbor Lines Inc. and VeRail Technologies, Inc., to develop and demonstrate a battery-operated switcher locomotive in the San Pedro Bay Ports. This action is to execute a contract with the City of Los Angeles Harbor Department to cost-share development and demonstration of a battery-operated switcher locomotive in an amount not to exceed \$300,000 from the Clean Fuels Program Fund (31).

COMMITTEE: Technology, September 21, 2018; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with the City of Los Angeles Harbor Department for the development of a battery-operated switcher locomotive in an amount not to exceed \$300,000 from the Clean Fuels Program Fund (31).

Wayne Nastri
Executive Officer

MMM:FM:NB:JL

Background

The South Coast Air Basin is an extreme nonattainment area for ozone under the federal Clean Air Act. SCAQMD supports wide-scale demonstration of on- and off-road zero and near-zero emission technologies to help our clean air goals. In an effort to address the significant emissions from goods-movement-related uses in the San Pedro Bay Ports (Ports), several projects such as zero-emissions cargo handling and near-zero emissions natural gas-powered drayage trucks have been implemented for on- and off-road vehicles. The Ports' Clean Air Action Plan supports projects for zero-emissions goods movement through the development and demonstration of battery-operated technology. In September 2017, SCAQMD provided a letter supporting the Port of Los Angeles'

Zero Emissions Track-Miles Locomotive Demonstration Project which was being submitted for a CARB grant to advance off-road technologies. The City of Los Angeles Harbor Department was subsequently awarded a grant to develop and demonstrate a battery-powered switcher locomotive.

Proposal

SCAQMD will contract with the City of Los Angeles Harbor Department who will act as the project lead and administrator. In turn, the City of Los Angeles Harbor Department has entered into agreements with VeRail Technologies, Inc., and Pacific Harbor Line Inc. (PHL) to further develop an existing CNG-powered locomotive into a fully operational battery-operated switcher locomotive for demonstration in the San Pedro Bay Ports. The locomotive will be designed to operate for a full shift using battery power only. PHL will supply the necessary charging infrastructure, and VeRail Technologies will coordinate with Voltabox and American Traction Systems (ATS) on the completion and testing of a fully operational battery-powered switcher locomotive. This action is to execute a contract with the City of Los Angeles Harbor Department to provide additional funding to further develop and demonstrate a battery-operated switcher locomotive in an amount not to exceed \$300,000 from the Clean Fuels Program Fund (31).

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions by which sole source awards may be justified. This request for a sole source award is made under provision B.2.d(1): Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interests of the SCAQMD. Such circumstances may include but are not limited to: Projects involving cost-sharing by multiple sponsors, as specified in Resource Impacts.

Benefits to SCAQMD

SCAQMD is committed to supporting and advancing the Ports' Clean Air Action Plan. The project demonstrates a practical and economically viable solution to simultaneously reducing both criteria and greenhouse gas emissions from port-related rail transport activities. The deployment of zero-emission battery-electric technology will benefit public health in the region and, in particular, disadvantaged communities that are disproportionately exposed to harmful emissions. Deployment of technologies to significantly reduce greenhouse gas emissions and reduce dependence on petroleum fuels further supports the state's Sustainable Freight Action Plan. Projects to support development and demonstration of zero and near-zero emissions goods movement technologies including battery electric locomotives are included in the *Technology Advancement Office Clean Fuels Program 2018 Plan Update* under "Electric/Hybrid Technologies & Infrastructure".

Resource Impacts

The total cost of the project is \$3,833,150. The SCAQMD cost-share will not exceed \$300,000 from the Clean Fuels Program Fund (31). The proposed partners and cost-share are summarized below.

Proposed Project Cost-Share

Funding Source	Funding Amount	% of Funding
CARB Grant	\$2,768,830	72
City of Los Angeles Harbor Department	\$303,321	8
PHL	\$229,050	6
VeRail Technologies, Inc., ATS and Voltabox (in-kind)	\$231,949	6
SCAQMD (<i>requested</i>)	\$300,000	8
Total	\$3,833,150	100

Sufficient funds are available from the Clean Fuels Program Fund (31), 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.