

BOARD MEETING DATE: December 7, 2018

AGENDA NO. 3

PROPOSAL: Develop and Demonstrate Near-Zero and Zero Emissions Vehicles and Equipment at Ports

SYNOPSIS: The Port of Long Beach and its project partners have received \$50,000,000 in funding and the Port of Los Angeles and its project partners have received \$41,122,260 under CARB's Low Carbon Transportation Investments grant solicitation to demonstrate near-zero and zero emissions on-road, off-road and marine vehicles and equipment, including battery electric and hydrogen fuel cell trucks and supporting infrastructure. Total anticipated projects costs are \$102,998,742 and \$82,547,024 for the Ports of Long Beach and Los Angeles, respectively. This action is to execute contracts from the Clean Fuels Program Fund (31) with the Port of Long Beach in an amount not to exceed \$500,000 and the Port of Los Angeles in an amount not to exceed \$1,000,000 for SCAQMD's project cost-share.

COMMITTEE: Technology, November 16, 2018; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with the Port of Long Beach in an amount not to exceed \$500,000 and a contract with Port of Los Angeles in an amount not to exceed \$1,000,000 from the Clean Fuels Program Fund (31) to develop and demonstrate near-zero and zero emissions vehicles and equipment at the Ports.

Wayne Natri
Executive Officer

MMM:FM:NB

Background

In July, the Port of Long Beach (POLB) and its project partners submitted an application to CARB under their Low Carbon Transportation Investments grant solicitation for a project entitled Sustainable Terminals Accelerating Regional Transformation (START). The Port of Los Angeles (POLA) and its project partners also submitted an application to CARB under their Low Carbon Transportation Investments grant solicitation for a project entitled Zero Emissions Freight "Shore to

Store” (S2S). CARB recently awarded the POLB \$50,000,000 towards their START Project, which has an anticipated total project cost of \$102,998,742, and POLA \$41,122,260 towards their S2S Project, which has an anticipated total project cost of \$82,547,024.

Proposal

The POLB’s START Project is to develop and demonstrate 102 near-zero and zero emissions vehicles, vessels and cargo handling equipment, including charging infrastructure, across an intermodal freight network spanning three California seaports and three California air districts. All deployments will be located in disadvantaged communities, improving air quality in areas heavily burdened by freight related emissions. At the POLB, the demonstration will include 33 zero emissions yard tractors, one top handler, 9 rubber tire gantry cranes, five Class 8 trucks and one tug. Additionally, two Tier 3 ocean going vessels will service the POLB and Port of Oakland. Several vehicle and original equipment manufacturers as well as multiple port terminals and fleets will be involved in this project. The remainder of equipment will operate in the Ports of Oakland and Stockton.

The POLA’s S2S Project is to develop and demonstrate ten Kenworth zero emissions Class 8 hydrogen fuel cell electric trucks, integrated with Toyota’s fuel cell drive technology, along with the two hydrogen fueling stations that will be built in Ontario and Wilmington. Like the POLB project, all deployments will be located in disadvantaged communities. The hydrogen fuel cell electric trucks will be operated by UPS, Total Transportation Services, Inc., Southern Counties Express and Toyota Logistics Services (TLS) throughout the Los Angeles basin ports, inland locations such as Riverside County and the Port of Hueneme (POH). Additionally, POH will demonstrate two electric yard tractors, and TLS will demonstrate two zero emissions forklifts at their facility. Fleet operators participating in this demonstration project are subject to change, contingent upon CARB’s approval if required.

Sole Source Justification

Section VIII.B.2. of the Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. The request for a sole source award for this project is made under the provision B.2.d.(1): Projects involving cost-sharing by multiple sponsors. The development and demonstration project with the POLB will be cost-shared by CARB, POLB, SCE and other project partners; the project with the POLA, by CARB, CEC, Toyota and other project partners. Further details are in the Resource Impacts section.

Benefits to SCAQMD

This demonstration project provides a unique opportunity to directly compare the performance of battery electric trucks to hydrogen fuel cell trucks, as well as provide a pathway for implementation of the recently adopted Clean Air Action Plan by the Gateway Ports. Projects to support development and demonstration of battery electric

and hydrogen fuel cell transportation technologies are included in the *Technology Advancement Office Clean Fuels Program 2018 Plan Update* under “Electric/Hybrid Technologies & Infrastructure” and “Hydrogen and Mobile Fuel Cell Technologies & Infrastructure.” This project will also provide additional NOx reductions towards attainment of upcoming 1-hour and 8-hour ozone air quality standards, as well as the 24-hour and annual PM2.5 air quality standards.

Resource Impacts

SCAQMD’s cost-share will not exceed \$500,000 and \$1,000,000 from the Clean Fuels Program Fund (31) for these two projects. Anticipated cost-share and partners are shown below.

POLB START Project

| Proposed Partners | Cost-Share | Percent of Project |
|--|----------------------|---------------------------|
| CARB | \$50,000,000 | 48.5 |
| POLB | \$7,891,157 | 7.7 |
| Southern California Edison | \$3,000,000 | 2.9 |
| Port of Stockton | \$2,000,000 | 2.0 |
| Port of Oakland | \$1,250,000 | 1.2 |
| Other Project Partners (cash & in-kind)* --Harley Marine Services --Matson --SSA Marine --Shippers Transport Express --Tetra Tech | \$38,357,585 | 37.2 |
| SCAQMD (<i>requested</i>) | \$500,000 | 0.5 |
| Total | \$102,998,742 | 100.0 |

*subject to change

POLA S2S Project

| Proposed Partners | Cost-Share | Percent of Project |
|---|---------------------|---------------------------|
| CARB | \$41,122,260 | 49.8 |
| CEC | \$25,999,331 | 31.5 |
| Toyota | \$9,740,000 | 11.8 |
| Other Project Partners* --Kenworth Truck Company --Port of Hueneme --Shell Oil Products USA --Southern Counties Express --Total Transportation Services --UPS | \$4,685,433 | 5.7 |
| SCAQMD (<i>requested</i>) | \$1,000,000 | 1.2 |
| Total | \$82,547,024 | 100.0 |

*subject to change

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.