

BOARD MEETING DATE: September 3, 2021

AGENDA NO. 5

**PROPOSAL:** Amend Awards for Zero-Emission Yard Tractor Replacements and for Ocean-Going Vessel Retrofit and Execute Contract for Capture and Control System for Oil Tankers Project Support

**SYNOPSIS:** In October 2017 and September 2020, the Board approved \$1,260,000 awards to Total Terminals International (TTI) for yard tractor replacements and \$11,474,000 to MAN Energy Solutions USA, Inc. (MAN) for Ocean-Going Vessel retrofit development, respectively. Both companies are not able to fulfill the original award requirements, so staff is recommending other companies to perform this work. In January 2021, the Board recognized an award from CARB to develop and demonstrate a capture and control system for oil tankers. Coalition for Clean Air will provide education and outreach support for this project. These actions are to 1) amend award from TTI to SSA Terminals LLC and execute a contract for electric yard tractors replacement; 2) amend award from MAN to Mediterranean Shipping Company USA, Inc. and execute a contract for Ocean-Going Vessel retrofit development; and 3) execute a contract with Coalition for Clean Air to provide education and outreach support for the Capture and Control System for Oil Tankers Project.

**COMMITTEE:** Technology, August 20, 2021; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Authorize the Chair to execute a contract with SSA Terminals LLC for electric yard tractors replacement;
2. Authorize the Chair to execute a contract with Mediterranean Shipping Company USA, Inc. (MSC USA) for Ocean-Going Vessel retrofits development; and

3. Authorize the Executive Officer to execute a contract from the Clean Shipping Technology Demonstration Special Revenue Fund (83) administrative funds in an amount not to exceed \$10,000 with Coalition for Clean Air to conduct education and outreach support for Capture and Control System for Oil Tankers Project.

Wayne Natri  
Executive Officer

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### **Background**

The 2016 AQMP identifies the need for NOx reductions in meeting upcoming national ambient air quality standards. Cargo handling equipment (CHE) and ocean-going vessels (OGVs) are major contributors to NOx emissions in the South Coast Air Basin. Significant increases in NOx, PM, and GHG emissions from these sources are expected due to increased demand in goods movement activities. Accelerating the deployment of zero emission CHE to the Ports and freight handling facilities and developing OGV emission control technologies for the vessels calling at the ports will reduce NOx and PM emissions.

The U.S. EPA's Targeted Air Shed Grant Program (TAG) is intended to reduce ozone and PM2.5 air pollution in non-attainment areas. Two TAG grants were awarded to South Coast AQMD in 2017 and 2020 to replace 16 liquefied petroleum gas (LPG) or diesel-fueled yard tractors with electric yard tractors, and develop and demonstrate a retrofit technology for OGVs at the San Pedro Bay Ports. The 16 yard tractors awarded are to be deployed at both Ports of Los Angeles (POLA) and Long Beach (POLB). In 2021 an award was issued to Total Terminals International (TTI) at Port of Long Beach who withdrew their participation due to a lack of eligible yard tractors for replacement. In late 2020, MAN informed staff that they would be unable to support the OGV retrofit development.

In January 2021, the Board recognized an award from CARB to design, develop and demonstrate a barge-based capture and control system for oil tankers. For the outreach and education support related to the implementation of the Capture and Control System for Oil Tankers Project it is proposed that Coalition for Clean Air will undertake these activities.

### **Proposal**

#### *Targeted Airshed Grant - Electric Yard Tractor Replacements at the Ports*

TTI withdrew from the yard tractor replacements project due to a lack of eligible tractors to be replaced under the EPA grant. POLB requested South Coast AQMD to

transfer the award for 6 battery-electric yard tractors to SSA Terminals LLC (SSA) as part of 33 zero-emission yard tractor deployments at SSA under POLB's Zero- and Near Zero-Emission Freight Facilities (ZANZEEF) project awarded by CARB. The total project cost for these replacements of \$2.7M to deploy six battery-electric yard tractors consists of \$1,215,000 from ZANZEEF, \$1,072,500 from EPA and \$421,500 cash cost-share from SSA which includes the \$187,500 cost-share originally committed by POLB. EPA has agreed to the transfer of award from TTI to SSA.

Targeted Airshed Grant - OGV Retrofit

MAN recently informed South Coast AQMD that they could not support the OGV retrofit project due to resource limitations and economic reasons. MSC USA and Wartsila agreed to partner with South Coast AQMD to design, develop and demonstrate two OGV retrofit technologies under the EPA grant and provide up to \$8M to cost-share the project. Two OGVs will be retrofitted, one with the Low-Pressure Exhaust Gas Recirculation (LPEGR) and particulate filter, and the other with a multiple fuel flexible injection system. Both retrofits are expected to achieve at least 70 percent NOx and PM reductions. The OGV with a multiple fuel flexible injection system is expected to also achieve 25 percent reduction of CO<sub>2</sub> emissions. EPA has agreed to this change in project scope.

Capture and Control System for Oil Tankers Project

Coalition for Clean Air (CCA) will support the implementation of the Capture and Control System for Oil Tankers Project and assist South Coast AQMD with public education and outreach. In January 2021, the Board recognized \$10 million from CARB into Fund 83 and will reimburse the General Fund up to \$500,000 from Fund 83 for the administrative cost necessary to implement the project. CCA's contract will use the funds reserved for the education and outreach support under the CARB Grant Agreement.

These actions are to: 1) amend an award with no additional cost from the Outreach and Education Fund (17) with TTI to SSA for the deployment of six electric yard tractors in an amount not to exceed \$1,260,000; 2) amend an award with no additional cost from the Clean Shipping Technology Demonstration Special Revenue Fund (83) with MAN to MSC USA for retrofitting two OGVs in an amount not to exceed \$11,474,000; and 3) authorize the Executive Officer to execute a contract in an amount not to exceed \$10,000 with CCA from Fund 83 administrative cost.

**Sole Source Justification**

Section VIII.B.2. of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified when project funding does not come from federal monies. For the CCA, a sole source recommendation is made under provisions B.2.c(1) the unique experience and capabilities of the proposed contractor or contractor team; and B.2.d.(8) research and development efforts with

educational institutions or nonprofit organizations. CCA was part of the proposal team to CARB.

For MSC USA, the award is made under provision B.2.c.(2) the project involves the use of proprietary technology and B.2.c.(3) the contractor has ownership of key asset required for project performance. The technology being developed between MSC USA and Wartsila is proprietary. MSC is the second largest ocean-going vessel operator in the world and owns the two vessels for this demonstration. For SSA, this award is justified 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 South Coast AQMD. Specifically, these circumstances include that the project involves cost sharing by multiple sponsors. SSA and CARB are providing funds for this project.

### **Benefits to South Coast AQMD**

The proposed yard tractor replacements project replaces in-use, higher-polluting equipment with zero-emission equipment, reducing ozone and PM2.5 air pollution in our Basin. The project supports the *Technology Advancement Office Clean Fuel Program 2021 Plan Update* under the categories of “Electric/Hybrid Technologies and Infrastructure.”

Projects to support the development and demonstration of OGVs are included in *Technology Advancement Office Clean Fuel Program 2021 Plan Update* under the categories of “Engine System/Technologies.” This project is to retrofit an International Maritime Organization (IMO) Tier II OGV with LPEGR and a multiple fuel flexible injection system capable of reducing NOx emissions by at least 70 percent from Tier II OGV emissions.

### **Resource Impacts**

There is no fiscal impact associated with amending awards and executing contracts under the two EPA TAG projects. The contract with CCA will not exceed \$10,000 and the funds are available from the administrative portion of the CARB Capture and Control System for Oil Tanker Project award in Fund 83.