

BOARD MEETING DATE: May 7, 2021

AGENDA NO. 4

PROPOSAL: Amend Contracts to Develop and Demonstrate Zero Emission Drayage Trucks and Add Funds for Administrative Assistance

SYNOPSIS: In March 2016, the Board approved execution of contracts for the Zero Emission Drayage Truck (ZEDT) project. CARB and South Coast AQMD staff propose to change scope and redistribute funds between Peterbilt and Volvo to assure project goals are met. This action is to authorize the Executive Officer to add \$1,254,491 to Volvo Technology of America, LLC contract to deploy two Class 8 battery electric trucks and charging infrastructure and reduce \$1,000,000 from Peterbilt Motors contract for the elimination of two Class 8 battery electric drayage trucks and add \$141,255 to a project implementation assistance contract to ensure completion of the ZEDT and Volvo LIGHTS projects, all from the Greenhouse Gas Reduction Projects Special Revenue Fund (67).

COMMITTEE: Technology, April 16, 2021; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Executive Officer to amend the following contracts to develop and demonstrate zero emission drayage trucks using project and/or administrative funds from CARB in the Greenhouse Gas Reduction Projects Special Revenue Fund (67) as follows:

- a. Add \$1,254,491 to Volvo Technology of America, LLC contract to deploy two Class 8 battery electric trucks and charging infrastructure;
- b. Reduce \$1,000,000 from Peterbilt Motors contract for the elimination of two Class 8 battery electric drayage trucks; and
- c. Add \$141,255 to Green Paradigm Consulting, Inc. (GPCI) towards project implementation assistance for the ZEDT and Volvo LIGHTS projects.

Wayne Nastri
Executive Officer

Background

ZEDT Project

In March 2016, the Board recognized revenue from CARB and other funding partners and awarded contracts to develop and demonstrate zero emission drayage trucks (ZEDT) under CARB's Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF) investments. South Coast AQMD received four percent of the total grant for administrative funding.

The ZEDT project, a collaboration between South Coast and Bay Area AQMDs, San Joaquin Valley and San Diego APCDs, and San Diego Gas & Electric, is to develop a portfolio of commercially promising zero and near-zero emission drayage truck technologies for statewide demonstration for drayage applications in and around the Ports of Long Beach, Los Angeles, Oakland, Stockton and San Diego. The project has four original equipment manufacturers (OEMs) participating, including BYD Motors, Kenworth Truck Company, Peterbilt Motors and Volvo Technology of America, LLC.

In October 2018 and December 2019, the Board amended the four OEM contracts to reallocate funds among the project partners. CARB is extending the ZEDT project to April 15, 2022 to allow additional time for data collection and reallocate funds among the project partners.

Project Implementation Assistance for Clean Fuels Projects

Through a competitive bid process, Green Paradigm Consulting, Inc. (GPCI), has been providing technical expertise and project implementation assistance on various Clean Fuels and grant funded projects based on their expertise with alternative fuels, electric vehicles, and charging and fueling infrastructure. Additional funds are needed to continue this support.

Proposal

ZEDT Project

Peterbilt has experienced challenges in deploying and supporting additional battery electric trucks in the field due to staffing and resource issues. In order to deploy the required number of trucks for the ZEDT project, staff's proposal is for Volvo to deploy two Class 8 battery electric trucks certified by CARB at a fleet in the San Joaquin Valley. This will include funding for installation of charging infrastructure to support these trucks. Funding allocated to Peterbilt did not previously include infrastructure. CARB has approved the reallocation of funding from Peterbilt Motors to Volvo Technology of America, LLC (Volvo) and reallocation of \$254,491 in administrative funds towards the Volvo project.

Project Implementation Assistance for Clean Fuels Projects

Since 2018, GPCI has been performing project implementation assistance for the ZEDT and Volvo LIGHTS projects. Since both projects are being extended to 2022, additional

funding is required for compilation of quarterly progress reports, invoices, disbursement requests, mileage tracking, technical deliverables, and auditing recordkeeping. CARB has approved the allocation of CARB administrative funds from the ZEDT and Volvo LIGHTS projects for project implementation assistance.

This action is to authorize the Executive Officer to amend contracts from the Greenhouse Gas Reduction Projects Special Revenue Fund (67) as follows: 1) Add \$1,254,491 to Volvo Technology of America, LLC contract to deploy two Class 8 battery electric trucks and charging infrastructure; 2) Reduce \$1,000,000 from Peterbilt Motors contract for the elimination of two Class 8 battery electric drayage trucks; and 3) Add \$141,255 to Green Paradigm Consulting, Inc. in CARB administrative funding from the ZEDT and Volvo LIGHTS projects. There is no net change in CARB grant funds from these actions.

Benefits to South Coast AQMD

The ZEDT and Volvo LIGHTS projects support development and demonstration of various electric container and freight transport technologies and infrastructure, as well as to demonstrate solar and energy storage technologies to enable development and demonstration of microgrids with fleets charging heavy-duty trucks, yard tractors, and forklifts are included in the *Technology Advancement Office Clean Fuels Program 2020 Plan Update* under the categories of “Develop and Demonstrate Electric and Hybrid Vehicles,” “Develop and Demonstrate Electric Container Transport Technologies,” “Develop and Demonstrate Electric Charging Infrastructure,” and “Develop and Demonstrate Microgrids with Photovoltaic/Fuel Cell/Battery Storage/EV Chargers and Energy Management.” These projects are to develop and demonstrate zero emission heavy-duty trucks, freight handling equipment, infrastructure and solar. Successful demonstrations of such projects will contribute to the attainment of national ambient air quality standards in the South Coast Air Basin by eliminating PM and NOx emissions from replaced diesel heavy-duty trucks and off-road freight handling equipment. The project also includes installation of infrastructure powered by solar and energy storage.

Resource Impacts

The reallocation of funds will not exceed CARB project and/or administrative funds for the ZEDT or Volvo LIGHTS projects in the GHG Reduction Projects Special Revenue Fund (67). The reallocation of ZEDT funding is as follows:

Project Partner	Dec 2019 Board		Proposed	
	CARB	SCAQMD	CARB	SCAQMD
Peterbilt	\$6,733,564	\$2,342,436	\$5,733,564	\$2,342,436
Volvo	6,010,564	2,341,184	7,265,055	2,341,184
GPCI (admin funds)	161,800	0	253,055	0
Staff Time (admin funds)	939,876	0	594,130	0
Total	\$13,845,804	\$4,683,620	\$13,845,804	\$4,683,620

Sufficient funds are available in the GHG Reduction Projects Special Revenue Fund (67) to amend the Volvo and GPCI contracts from CARB funding for the ZEDT project and the GPCI contract from CARB funding for the Volvo LIGHTS project.