


BOARD MEETING DATE: October 7, 2016

AGENDA NO. 5

PROPOSAL: Recognize Funds and Amend Contract for Development, Integration and Demonstration of Ultra-Low Emission Natural Gas Engine for On-Road Heavy-Duty Vehicles 

SYNOPSIS: On November 6, 2015, the Board awarded a contract to Cummins Westport Inc. (CWI) to cofund the development of an 11.9-liter heavy-duty natural gas engine that is 90% cleaner than the current on-road heavy-duty NOx exhaust emissions standard. This award included \$1 million in cost-share funding from the CEC, excluding funding CEC had intended to award directly to CWI. Subsequently, CEC has indicated they will award all project cost-share as pass-through funding to SCAQMD for a total of \$2,000,000. These actions are to recognize funds up to an additional \$1,000,000 into the Clean Fuels Fund (31) and amend the contract with CWI to increase the contract by an additional \$1,000,000 from the Clean Fuels Fund (31).

COMMITTEE: Technology, September 16, 2016; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize, upon receipt, up to \$1 million from the CEC into the Clean Fuels Fund (31) for the development, integration and demonstration of an 11.9-liter ultra-low emission natural gas engine meeting the 0.02 grams per brake horsepower per hour (g/bhp-hr) optional NOx standard for on-road heavy-duty vehicles; and
2. Authorize the Chairman to amend a contract with CWI to increase funding by up to \$1 million for the development, Integration and demonstration of an 11.9-liter ultra-low emission natural gas engine meeting the 0.02 g/bhp-hr optional NOx standard for on-road heavy-duty vehicles.

Wayne Nastri
Acting Executive Officer

Background

On November 6, 2015, the Board approved a contract with CWI to develop, integrate and demonstrate an 11.9-liter natural gas engine meeting the 0.02 g/bhp-hr optional NOx emission standard for on-road heavy-duty vehicles. This award included pass-through cost-share funding of \$1 million each from CEC and the Southern California Gas Company as well as \$500,000 from Clean Energy. The CEC had also intended to provide an additional \$1 million in a separate sole source contract directly with CWI. Subsequently, CEC has indicated they will award all project cost-share as pass-through funding to SCAQMD for a total of \$2,000,000 for the 11.9-liter natural gas engine development.

Proposal

This action is to recognize, upon receipt, up to an additional \$1 million from the CEC (for a total of \$2 million) for the development, integration and demonstration of an 11.9-liter heavy-duty natural gas engine that is 90% cleaner than the current on-road heavy-duty NOx exhaust emissions standard. This action is to also amend the contract with CWI to increase project funding in an amount not to exceed \$1 million. The project includes three phases: engine development, integration of the engine into vehicles and demonstration of the engine technology during typical operation of the vehicles. The additional \$1 million from CEC is restricted to the engine development and integration phases.

Sole Source Justification

Section VII.B.2 of the Procurement Policy and Procedure identifies provisions by which sole source awards may be justified. This request for a sole source award is made under provisions B.2.c(2): The project involves the use of proprietary technology; and B.2.d: Other circumstances exist which in the determination of the Executive Officer requires such waiver in the best interests of the SCAQMD. Such circumstances may include but are not limited to (1) projects involving cost sharing by multiple partners and (3) projects involving commitment to multiple project phases. CWI has proprietary engine and aftertreatment technology developed for the 8.9-liter engine with assistance from a previous SCAQMD award. This technology will be applied to the 11.9-liter engine in this project. CEC, SoCalGas and Clean Energy are providing cost sharing along with in-kind cofunding provided by CWI. And the project includes three phases: engine development, integration of the engine into vehicles and demonstration of the engine technology during typical operation of the vehicles.

Benefits to SCAQMD

The Board previously awarded a contract to CWI to develop, integrate and demonstrate 11.9-liter ultra-low emission heavy-duty natural gas engines that are capable of achieving 0.02 g/bhp-hr or lower NOx emissions. This additional funding from CEC will ensure that the development project remains on schedule and that the development targets will be met. The development and use of engines meeting the 0.02 g/bhp-hr

optional NOx standard in on-road heavy-duty truck applications will assist the SCAQMD to attain its clean air goals. This project is included in the *Technology Advancement Office Clean Fuels Program 2016 Plan Update* under “Engine Systems.”

Resource Impacts

CEC will provide up to \$1,000,000 in additional funds (for a total of \$2,000,000 in pass-through funds) to be recognized into the Clean Fuels Fund (31) for development of the 0.02 g/bhp-hr NOx 12-liter natural gas engine by CWI. No additional SCAQMD funds are required beyond the \$1,750,000 previously approved by the Board in November 2015. The contract with CWI will not exceed \$5,250,000 from the Clean Fuels Fund (31), with cost-share reflected below:

Proposed Project Cost-Share

Funding Source	Funding Amount	% of Project
Clean Energy	\$ 500,000	8%
CEC	\$2,000,000	32%
SoCalGas	\$1,000,000	16%
CWI (in-kind)	\$1,000,000	16%
SCAQMD	\$1,750,000	28%
Total	\$6,250,000	100%

Sufficient funds are available from the Clean Fuels 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.