



Board Report

File #: 2018-0265, File Type: Contract

Agenda Number: 30.

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE JUNE 21, 2018

SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES

ACTION: APPROVE CONTRACT MODIFICATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute Modifications Nos. 1 and No. 2 to Contract No. MA39865000, with Cummins Pacific, LLC, for Near Zero Emission Natural Gas Fueled Engines, to exercise Option 1 in the amount of \$11,296,774 and Option 2 in the amount of \$7,064,518, increasing the total contract value from \$8,160,522 to \$26,521,814, inclusive of sales tax.

ISSUE

The Central Maintenance Facility (CMF) engine replacement program is coordinated with Metro's strategic plans for transitioning to Zero Emission Buses which was adopted in July 2017. The Cummins ISL G 280 horse power (hp) engines, currently installed in our NABI 45-foot series composite buses, will be replaced with new "Near Zero" emission engines that will operate on Renewable Compressed Natural Gas (RCNG). This procurement is required to ensure the current engine replacement program continues without delays and with no impact on revenue service.

The current contract for a total of 395 Near Zero Emission Natural Gas Fueled Heavy Duty Engines was approved in July 2017. The base buy included 125 engines for \$8,160,522. To continue replacing engines in buses, Contract Modifications are required to increase the base contract by \$11,296,774, for the first one year option for an additional 168 engines, and \$7,064,518, for the second year option for an additional 102 engines.

DISCUSSION

CMF staff has identified a requirement to purchase an additional 270 natural gas fueled heavy duty engines to replace currently installed Cummins ISL G 280 hp engines during the period FY19 through FY21. The Cummins ISL G Near Zero Emission engines delivered under this procurement will be installed as part of the engine replacement program.

The ISL G Near Zero natural gas engine reduces NOx by 90 percent and greenhouse gases by nine percent compared to the standard ISL-G CNG-powered engine. Currently, the Cummins ISL G Near Zero Emission is the only CNG mid-range engine to receive emissions certifications from the Federal

Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for meeting the 0.02 g/bhp-hr optional Near Zero NOx emissions standard. These engines are designed to be operated on either pipeline CNG or bio-gas/RCNG.

The Cummins ISL G NZ fueled heavy-duty engines are warranted to be free from defects in design and materials for two-years with unlimited mileage with full parts and labor on all warrantable failures. The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) goal for this solicitation due to the lack of subcontracting opportunities. Cummins Pacific, LLC manufactures the engines in-house. The purchased engines are installed by Metro Mechanics.

DETERMINATION OF SAFETY IMPACT

The approval of this item will result in a positive impact on safety. Installation of these new engines will ensure that buses are maintained in accordance with Metro Maintenance standards and improve on-road performance and reliability, with beneficial impact on system safety.

FINANCIAL IMPACT

Subject to Board approval of the FY19 Budget, funding of \$11,296,774 is to be allocated under cost center 3366 - Central Maintenance Shops, account 50441, Parts- Revenue Vehicle under project 203024, Bus Midlife Program. Since this is a multi-year Contract, the project manager, cost center manager and Chief Operations Officer will be accountable for budgeting the cost in future fiscal years.

Impact to Budget

The current source of funds for this action is Proposition C 40% which is eligible for allocation to this type of Capital project. Use of this funding source is within approved funding provisions and guidelines.

ALTERNATIVES CONSIDERED

The alternative is not to continue this master agreement Contract and procure natural gas fueled heavy-duty engines on an as-needed basis, using the traditional "min/max" replenishment system method. The "min/max" replenishment system method calculates minimum and maximum inventory levels. This strategy is not recommended since it does not provide for a commitment from the supplier to ensure availability, timely delivery, continued supply and a guaranteed fixed price for natural gas fueled heavy-duty engines.

NEXT STEPS

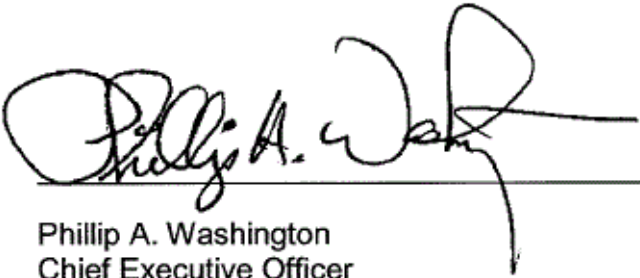
Refurbishment of the NABI bus fleet will continue in accordance with Operations Support Services bus midlife program and engine replacement program. The engine replacement program utilizing the engines is scheduled to be completed by the end of FY20.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification/Change Order Log
Attachment C - DEOD Summary

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