

**Board Report**

File #: 2017-0399, **File Type:** Contract**Agenda Number:** 45

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES****ACTION: APPROVE CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a three year, indefinite delivery/indefinite quantity Contract No. MA39865000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of \$8,160,523, inclusive of sales tax, for the base year; a not-to-exceed amount of \$11,296,774, inclusive of sales tax, for the first one year option; and a not-to-exceed amount of \$7,064,518, inclusive of sales tax, for the second one year option, for a total Contract amount of \$26,521,815.

ISSUE

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 here on Renewable Compressed Natural Gas (RCNG). The Central Maintenance Facility (CMF) engine replacement program is coordinated with Metro's strategic plans for transitioning to Zero Emission Buses. This procurement is required to ensure the current engine replacement program continues without delays and with no impact on revenue service.

DISCUSSION

CMF staff has identified a requirement to purchase up to 395 natural gas fueled heavy duty engines to replace currently installed Cummins ISL G 280 hp engines during the period FY18 through FY20. 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 the 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 Near Zero 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.

DETERMINATION OF SAFETY IMPACT

The award of this Contract 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

The total contract value is not-to-exceed \$26,521,815. The funding of \$8,160,523 for these engines is included in the FY18 budget in cost center 3366, under project 203036, Bus Midlife Program and line item 50441, Parts- Revenue Vehicle. 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, including any options exercised.

A grant for \$1.875 million was awarded to Metro by the Mobile Source Air Pollution Reduction Committee (MSRC) to offset the cost of installation of the Near Zero engine in 125 buses.

Impact to Budget

The source of funds for this procurement will come from Federal formula funds, State MSRC and local Proposition C 40%. These sources are eligible for Bus Operating or Capital projects. Use of these funding sources maximizes established funding provisions and guidelines.

ALTERNATIVES CONSIDERED

The alternative is not to award 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 mid-life program and engine replacement program. The engine replacement program utilizing the engines is scheduled to be completed by the end of the second quarter, FY20.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

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