



Board Report

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Agenda Number: 31.

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE AUGUST 18, 2016

SUBJECT: COMPRESSED NATURAL GAS FUEL CYLINDERS

ACTION: APPROVE CONTRACT AWARD

RECOMMENDATION

AWARD Contracts to the following two lowest responsive and responsible bidders for **Compressed Natural Gas (CNG) Fuel Cylinder Tanks** for an Indefinite Delivery Indefinite Quantity, for a total amount not to exceed \$4,351,161 inclusive of sales tax:

- A. Contract No. MA24755-1 with Worthington Industries for line item 1 for a total contract amount not-to-exceed \$2,903,368; and
- B. Contract No. MA24755-2 with Hexagon Lincoln for line item 2 for a total contract amount not-to-exceed \$1,447,793.

ISSUE

In order to keep Metro's bus fleet size at its current level, and fit within the projected bus replacement schedule, staff identified a need to retrofit up to 346 buses with new CNG fuel cylinders. In January 2016, the Board approved the purchase of CNG cylinders to retrofit 150 buses. An additional 196 buses must be kept in revenue-service beyond the 15 year-life of the CNG fuel cylinders installed on the buses at time of manufacture to reach the projected retrofit need. The Contracts will provide up to 882 CNG cylinders from Worthington Industries to be installed on up to 126 buses from the 76-7949 NABI series (7 cylinders per bus) and up to 462 CNG cylinders from Hexagon Lincoln to be installed on up to 77 buses from the 53-5522 New Flyer series (six cylinders per bus). The configuration of the cylinder is different for each of the two bus series.

DISCUSSION

In 1998, Metro initiated an Accelerated Bus Replacement program for the bus fleet. Between 1999 and 2002, over 1,200 40' CNG buses were purchased. All of these buses have "15-year" CNG fuel cylinders that cannot be used after they reach their 15 year expiration limits. CNG fuel cylinders are tested and date stamped for a given lifespan. Federal regulations do not permit the use of CNG fuel cylinders past their expiration dates, and there is not a process to recertify or otherwise extend the life of CNG cylinders.

This procurement is required to ensure the availability of CNG fuel cylinders to continue the campaign to replace expired cylinders to ensure that revenue service is not negatively impacted due to equipment shortages. The next bus procurement will not start delivery of additional vehicles until after July 2017.

The buses targeted for CNG fuel cylinder replacement are the 2000-01 40' New Flyer 5300 series buses and 2001 40' NABI 7600 series buses. The vehicles were selected based on the condition of the buses and major components, including the engine. Mechanics in Metro's Central Maintenance Shops will perform CNG fuel cylinder replacements on 28 buses a month until the completion of the project in February 2017. Replacing the CNG fuel cylinders on one bus requires 58 hours.

DETERMINATION OF SAFETY IMPACT

Award of these Contracts will result in a positive impact on safety. Replacing expired CNG fuel cylinders on the bus will help ensure the safe and compliant operation of the vehicle.

FINANCIAL IMPACT

Total base contract value is not-to-exceed \$4,351,161. The funding of \$4,351,161 for these engines is included in the FY17 budget in cost center 3366, Central Maintenance Shops under project 306002, Operations Maintenance and line item 50441, Parts- Revenue Vehicle. This project is currently scheduled to be completed in February 2017. If required, the Cost Center Manager, Project Manager, and Chief Operations Officer will ensure that this project is budgeted in future Fiscal Years.

Impact to Budget

The source of funds for this procurement will come from Federal, State and local funding sources that are eligible for Bus Operating Projects. These funding sources will maximize the use of funds for these activities.

ALTERNATIVES CONSIDERED

The alternative is not to award this master agreement contract and procure CNG fuel cylinders 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 guaranteed fixed price CNG cylinders.

Due to the time frame required to procure new vehicles and the number of buses in the current fleet with CNG cylinders reaching the 15 year expiration, there are no alternative options available other than replacing CNG cylinders on Metro buses with expiring cylinders. Not pursuing this strategy will impact the quantity of buses available for revenue service and would necessitate service reductions.

NEXT STEPS

Upon Board approval, staff will execute the contracts with Worthington Industries and Hexagon

Lincoln. Upon receipt of the new CNG cylinders, additional 5300 series buses and 7600 series buses will be brought to the Central Maintenance Shops for fuel cylinders removal and the reinstallation of new cylinders.

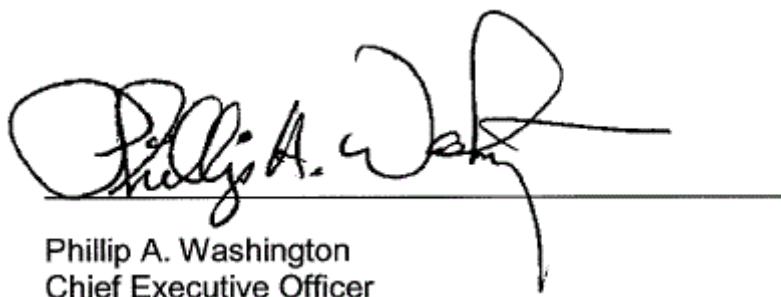
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

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