

**Board Report**

File #: 2020-0648, **File Type:** Contract**Agenda Number:** 16.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
NOVEMBER 19, 2020****SUBJECT: ELECTRICAL HARNESS KITS****ACTION: AWARD CONTRACT****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a four-year, indefinite delivery, indefinite quantity Contract No. SD69847000 to DSM&T Company Inc., the lowest responsive and responsible bidder for electrical harness kits. The Contract two-year base amount is \$696,420 inclusive of sales tax with a one-year option amount of \$435,263, inclusive of sales tax and a second-year option amount of \$435,262, for a total contract amount of \$1,566,945, subject to resolution of protest(s), if any.

ISSUE

This procurement is for the acquisition of electrical harness kits are required to maintain the safe and reliable operation of the Cummins natural gas engines, electronic cooling fan systems, catalytic converter exhaust sensing systems, and on-board diagnostic systems in the current bus fleet. Award of this contract will ensure that Metro's Bus Maintenance has adequate inventory and supplies for replacement of the electrical harnesses during the bus midlife refurbishment program.

BACKGROUND

Transit bus engines, transmissions, cooling systems, air conditioning systems, doors, and numerous other systems and components are controlled electrically by switches, sensors, and computers located throughout the buses. Electrical harnesses provide the connection to allow communication through electronic signals to control these systems and components. The harnesses are a critical part of the bus electrical systems, and degradation of the harnesses can significantly impact the performance and reliability of the engine, transmission, and cooling systems. Corrosion or wear in electrical connectors can result in performance problems and unnecessary in-service failures and increased maintenance costs.

DISCUSSION

Electrical harnesses extend throughout the outer shell of all transit buses to control propulsion, access, and comfort systems on buses, along with providing electronic signals for safety devices, such as headlights, taillights, brake lights, and alarm systems. Wiring harnesses degrade over time due to heat and moisture intrusion, which can lead to open circuits, shorted circuits, and high electrical resistance that can lead to the overheating of wires and connectors in the bus electrical

systems.

The electrical harnesses will be replaced during the midlife refurbishment of the New Flyer Xcelsior 40' transit buses, which are approaching 8 years of age and 300,000 life miles. The new harnesses will ensure a high level of performance and reliability of the new Cummins L9N near-zero emissions engine, exhaust, and cooling system, which require numerous sensors configured to allow for more efficient operation and reduced emissions for the propulsion system.

The contract to be awarded is a "requirements type" agreement in which Metro commits to order only from the awardee, up to the specified quantity for a specific duration of time, but there is no obligation or commitment for Metro to order all of the electrical harness kits that may be anticipated. The bid quantities are estimates only, with deliveries to be ordered and released as required. The Diversity and Economic Opportunity Department (DEOD) recommended a two percent 2% DBE goal for this solicitation and DSM&T Company Inc. made a 2% DBE commitment.

Electrical harness kits will be purchased, maintained in inventory and managed by Material Management. As electrical harness kits are issued, the appropriate budget project numbers and accounts will be charged.

DETERMINATION OF SAFETY IMPACT

Award of this contract will result in a positive impact on safety by ensuring that the Central Maintenance Shops midlife refurbishment program has an adequate inventory of parts to safely maintain the bus fleet according to preventive maintenance requirements and Metro Maintenance standards. Ensuring an adequate supply of critical parts ensures the performance and reliability of the bus fleet which will have a beneficial impact on system safety.

FINANCIAL IMPACT

Funding of approximately \$226,337 for the electrical harness kits is required for the remainder of the current fiscal year and is included in the FY21 budget under account 50441, Parts - Revenue Vehicle in the Central Maintenance cost center 3366 under project 203024 midlife refurbishment program. Since this is a multi-year contract, the cost center managers and Chief Operations Officer will be accountable for budgeting the cost in future fiscal years including any option exercised.

Impact to Budget

The source of funds will come from Federal and local funds that are eligible for Bus and Rail Operating Projects. Use of these funding sources maximizes established funding provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The procurement of electrical harness kits supports Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. The installation of electrical harness kits during the midlife refurbishment program will maintain the reliability of the bus fleet and ensure that our customers are able to arrive at their destinations without interruption and in accordance with the scheduled service intervals for Metro bus operations.

ALTERNATIVES CONSIDERED

The alternative is to not award the contract and procure electrical harness kits on the open market on an as-needed basis. This approach is not recommended since the manufacturing of electrical bus harnesses is a very complex process requiring extensive quality control. Purchasing these kits on the open market does not provide an equal level of quality control and does not provide a commitment from the supplier to ensure availability and price stability.

NEXT STEPS

Metro's requirements for electrical harness kits will be fulfilled under the provisions of the contract.

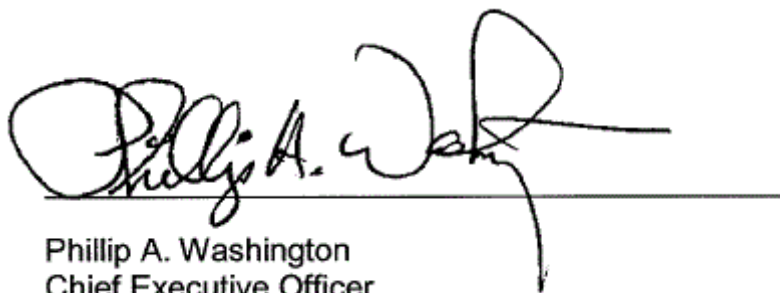
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

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