



Board Report

File #: 2022-0432, File Type: Contract

Agenda Number: 32.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE AUGUST 18, 2022

**SUBJECT: A650 HEAVY RAIL VEHICLE STATIC CONVERTER LOW VOLTAGE POWER
SUPPLY (LVPS) PURCHASE**

ACTION: CONTRACT AWARD

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 60-month, firm fixed unit price Contract No. OP82170000 to Kiepe Electric LLC for the purchase of forty-two (42) new Low Voltage Power Supply (LVPS) units of static converters in support of the A650 Heavy Rail Vehicle (HRV) fleet. The Contract's one-year base amount of \$472,306 (5 units), and the one-year option amount of \$1,470,195 (37 units), is for a total contract amount of \$1,942,501, inclusive of sales tax. This recommendation is subject to the resolution of any properly submitted protest(s).

ISSUE

The Original Equipment Manufacturer (OEM) can no longer overhaul these critical LVPS units due to the declining reliability of the LVPS technology transfer and parts obsolescence, necessitating the purchase of a new design static converter LVPS units. This procurement is for the purchase of forty-two (42) new LVPS units (5 Base and 37 Option) to allow for the continuation of overhaul services required for a thorough and complete overhaul of the A650 Fleet. Furthermore, the purchase of new units will achieve equipment safety, reliability, and performance standards in accordance with regulatory requirements and OEM specifications. This procurement will result in the least impact on the schedule and Metro resources to ensure fleet reliability and vehicle maintainability.

BACKGROUND

The Breda A650 HRV option-buy fleet consists of 37 married-pair vehicles and is currently in its 24th year of revenue service operations. This fleet is currently undergoing a Component Overhaul Program, overhauling five major systems including friction brake, traction motor, gearbox coupler, and LVPS equipment. The average per car mileage is 1.7 million miles with accumulated fleet mileage of 128 million miles and consistent reliability and safety record.

DISCUSSION

The LVPS is one of five vehicle systems within the Component Overhaul Program managed and performed by Rail Fleet Services staff. Other vehicle systems undergoing overhaul include coupler, friction brake, gearbox, traction motor, and semi-permanent coupler.

The LVPS equipment consists of low and high-voltage electronic components that convert traction supply power of 750 Vdc to 120 & 220 Vac for battery charging, emergency lighting, braking systems, and door operation supply source. The LVPS is considered vital and safety-critical equipment necessary to sustain the A650 fleet in revenue service operations in conjunction with the State of Good Repair (SGR) policy.

Rail Fleet Services (RFS) Engineering developed equipment overhaul specification(s) for all systems included in the Component Overhaul Program based on OEM recommendations and RFS maintenance experience. The contractor for the new LVPS units will design, manufacture, test, and implement the development of new LVPS equipment units in accordance with Metro's technical specifications within the defined schedule requirements.

DETERMINATION OF SAFETY IMPACT

The purchase of new LVPS equipment ensures vehicle battery charging levels for friction braking, emergency lighting, doors, and other vital systems. In the event of LVPS equipment failure, the vehicle safety systems are compromised and the vehicle will not operate.

FINANCIAL IMPACT

Funding of \$1,942,501 for 42 LVPS equipment units is included in the FY23 budget and \$11,000,000 is available for Component Overhaul Life of Project Budget (LOP) CP #206038. The delivery of the LVPS equipment is planned for the 2nd quarter of FY23 post contract award.

Impact to Budget

The current source of funds for the overhaul program and Consulting Services is Proposition A 35%. Staff will pursue additional federal funds that may become available for this project to maximize and conserve the use of local funding sources and/or debt.

Since multi-year projects are funding this recommendation, the Chief Operating Officer, Chief Program Management Officer, and respective Project Managers will be responsible for future fiscal year budgeting.

EQUITY PLATFORM

The Red and Purple rail lines utilize all of the heavy rail fleet vehicles in Metro's system. Based on the 2019 Customer Survey, the Red and Purple rail lines serve the following ridership:

- 27.7% below the poverty line
- 56.4% had no car available

-
- Rider Ethnicity: Latino 38.9%; Black 13.1%; White 25.8%; Asian/Pacific Islander 15.2%; Other 6.5%

In addition, areas served include Union Station to Downtown LA, Koreatown (Wilshire/Western), Hollywood, Universal City, and North Hollywood, a majority of which serve people living in Equity Focus Communities.

No SBE or DVBE goals were established due to the lack of subcontracting opportunities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Metro Strategic Plan Goal 5) Provide responsive, accountable, and trustworthy governance within the Metro organization. New LVPS will ensure fleet and equipment reliability, minimize vehicle maintenance needs, and provide for safety for Metro's passengers in all operational modes.

ALTERNATIVES CONSIDERED

Due to the OEM's inability to repair or overhaul the LVPS equipment and to technology transfer and parts obsolescence, it is imperative to procure new LVPS equipment utilizing current technologies and parts that will support vehicle operations for vehicle operations an estimated 15 years. There are no alternatives to be considered.

NEXT STEPS

Upon Board approval, the contract awardee will begin the design, manufacturing, testing, and prototyping process as outlined in Metro's Technical Specification for new LVPS equipment. The Contractor shall provide a production schedule to identify milestones consistent with the scheduled delivery of the LVPS equipment.

ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Bob Spadafora, Senior Executive Officer, Rail Fleet Services (213) 922-3144
Richard M. Lozano, Senior Director, Rail Fleet Services (323)-224-4042.
Debra Avila, Deputy Chief Vendor/Contract Management (213) 418 3051

Reviewed by: Conan Cheung, Chief Operations Officer (213) 418-3034



Stephanie N. Wiggins
Chief Executive Officer