

**Board Report**

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**File #:** 2018-0503, **File Type:** Contract**Agenda Number:** 20.

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**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE  
SEPTEMBER 20, 2018****SUBJECT: A650 STATIC CONVERTER LOW VOLTAGE POWER SUPPLY (LVPS) ASSEMBLY  
(OPTION-BUY FLEET)****ACTION: CONTRACT AWARD****RECOMMENDATION**

AWARD a 60-month indefinite quantity/indefinite delivery Contract No. MA48386000 to Knorr-Bremse PowerTech to overhaul up to 42 Static Converter LVPS Assemblies for the A650 Option Rail Vehicle for a not-to-exceed amount of \$1,308,394, subject to resolution of protest(s), if any.

**ISSUE**

The Original Equipment Manufacturer (OEM) establishes a timeline for vehicle maintenance and major systems overhauls in order to maintain the safety and level of performance of their vehicles.

Implementation of this overhaul program helps ensure the A650 Option-buy fleet remains in a constant State of Good Repair (SGR) by overhauling multiple systems on the vehicles including friction brake, doors, gear units, traction motors, trucks and suspension, LVPS and coupler systems. Completing this scheduled overhaul will ensure equipment safety, performance and longevity of the rail cars.

**BACKGROUND**

The Breda A650 Option-Buy Heavy Rail Vehicle Fleet is in its 21st year of revenue service operations with an average per car mileage of over 1.4 million miles, accumulated fleet mileage of over 98 million miles with consistent performance, and a reliable safety record. The A650 fleet, consisting of 74 rail cars, is due for the acquisition of Static Converter LVPS overhaul services per the original equipment manufacturer (OEM) and Metro Engineering's recommendations. The LVPS overhaul is one of fourteen vehicle systems to be overhauled which require procurement contracts.

**DISCUSSION**

The LVPS assembly consists of electronic and high voltage electrical components that convert nominal 750 Vdc to 37.5 Vdc while providing power to the low voltage circuits for battery charging, emergency lighting, and supply voltage to various motors and auxiliary equipment on the rail car.

Upon malfunction of the LVPS, there will be consequential negative impacts to the vehicle low voltage systems including battery malfunction, inoperability of various systems and passenger emergency lighting failures with service delays and customer inconvenience. Servicing and inspecting of the LVPS is performed by in-house maintenance personnel; however, overhaul of this equipment is beyond the level of in-house maintenance capability and is therefore required to be performed by a qualified vendor. The contractor will perform services in accordance with OEM and Metro Engineering specifications following a production schedule of two units per month.

The LVPS overhaul is one of fourteen vehicle systems to be overhauled which require procurement contracts. Systems to be overhauled or modified in this program include car interior renovations, bike area and railing modifications, loop step modification, seat insert replacement, passenger door, friction brake, air compressor, AC evaporator motor upgrade, coupler, semi-permanent drawbar, air spring replacement, traction motor, gear unit, and LVPS overhaul.

### **DETERMINATION OF SAFETY IMPACT**

Passenger and employee safety are of the utmost importance to Metro and, therefore, it is imperative to maintain the A650 Option-Buy fleet to a constant state of good repair. The LVPS overhaul is in support of the complete A650 component overhaul program. This effort will ensure that these vehicles are maintained by OEM recommendations and regulatory standards, according to the defined schedule and technical specification requirements, and within Metro's internal Corporate Safety standards.

### **FINANCIAL IMPACT**

The total contract amount is \$1,308,394. Funding of \$50,000 for this procurement is included in the FY19 budget in cost center 3942, Rail Fleet Services Maintenance Red Line, under project number 206034, line item 50316, Professional & Tech Service.

Since this is a multi-year contract, the cost center manager, project manager and Sr. Executive Officer, Rail Fleet Services will ensure that the balance of funds is budgeted in future fiscal years

#### **Impact to Budget**

The Current source of funding for this acquisition is Proposition A 35% debt. This funding source maximizes allowable uses given approved funding provisions and guidelines.

### **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

Approval of this recommendation supports the following Metro Strategic Plan Goal: Provide high quality mobility options that enable people to spend less time travelling. This project will improve safety, service, and reliability in an effort to provide a world-class transportation system that enhances quality of life for all who live, work, and play within LA County

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**ALTERNATIVES CONSIDERED**

The LVPS Assembly is a safety critical system required to be overhauled per the OEM and regulatory requirements. To avoid catastrophic equipment failures of the LVPS electronic components and to avoid service delays and customer inconvenience deferring this overhaul is not recommended as Metro could also be subject to penalties mandated by the California Public Utilities Commission.

**NEXT STEPS**

Overhaul of the Static Converter LVPS Assembly on the A650 Heavy Rail vehicles will continue in accordance with Rail Fleet Services scheduled requirements. If approved, the project is scheduled to commence in December 2018.

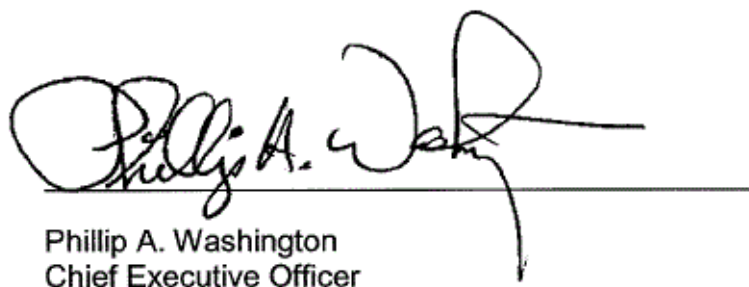
**ATTACHMENTS**

Attachment A - Procurement Summary

Attachment B - DEOD Summary

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