

**Board Report**

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**File #:** 2019-0209, **File Type:** Contract**Agenda Number:** 40.

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**REGULAR BOARD MEETING  
APRIL 25, 2019****SUBJECT: P2550 LIGHT RAIL VEHICLE STATIC INVERTER APS/LVPS OVERHAUL****ACTION: CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 60-month, Indefinite Delivery/Indefinite Quantity (IDIQ) Contract no. MA51966000 to AmePower, the lowest responsive and responsible bidder, for the overhaul of P2550 Light Rail Vehicle Static Inverter Auxiliary Power Supply/Low Voltage Power Supply (APS/LVPS) Overhaul. This award is a not-to-exceed amount of \$2,714,220 subject to resolution of protest(s), if any.

**ISSUE**

In June 2017, the Board of Directors approved the implementation of a P2550 Component Overhaul Program. This procurement is for the professional services to complete the overhaul of the Static Inverter APS/LVPS equipment for the P2550 fleet as recommended by the Original Equipment Manufacturer (OEM) established guidelines. Execution of the overhaul will ensure that the fifty (50) rail car fleet remains in a constant State of Good Repair (SGR) while safeguarding passenger safety, vehicle performance and equipment longevity.

**DISCUSSION**

The Ansaldo Breda P2550 Light Rail Vehicle (LRV) fleet is in its 11th year of revenue operations. In order to ensure continued safety and reliability the Static Inverter requires overhaul at the eighth year or the six-hundred thousand (600,000) mileage interval as defined by the OEM. The Static Inverter equipment consists of low and high power electronics that drive the inverter modules, transduce voltages, and convert direct current voltages to power the various vehicle systems. The static inverter equipment consists of capacitors, resistors, relays, and circuit boards that degrade and drift over time. This is an integral component of the vehicle systems that provides regulated power to the vehicle inverter systems therefore it is critical to maintain the Static Inverter equipment in a constant state of good repair.

The P2550 Component Overhaul Program consists of a total of nine procurements for the overhaul of the major vehicle systems inclusive of propulsion, pantograph, battery, doors, couplers, high voltage and auxiliary power, friction brakes and truck systems. The power axle assembly, coupler, and friction brake contracts were awarded in December of 2017. Metro is requesting the approval of the Static

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Inverter APS/LVPS overhaul contract which is the ninth and final component overhaul procurements requiring board approval for this project. This procurement is for the professional services to complete the overhaul of fifty kits in addition to five spare kits to support the maintenance activities.

Metro's Transit Asset Management and Operations staff conducted a condition assessment of the P2550 fleet in the fall of 2016. The P2550 fleet's overall State of Good Repair (SGR) rating is 3.7 out of 5.0 for an overall adequate rating. This represents an asset that has reached its mid-life and has some moderately defective or deteriorated components. The condition assessment suggested that by performing the recommended OEM mid-life overhauls and addressing the design and obsolescence issues on the P2550 fleet, it is expected that the vehicles can reach their intended 30-year life based on statistical condition decay models.

Rail Fleet Services (RFS) Engineering developed an equipment overhaul specification for the Static Inverter APS/LVPS overhaul based upon the OEM recommendations and with RFS maintenance experience. The contractor will perform overhaul services in accordance with a defined schedule and with Metro's technical specifications requirements.

### **DETERMINATION OF SAFETY IMPACT**

Safety is of the utmost importance to Metro and, therefore, it is imperative to maintain the P2550 fleet. The Static Inverter overhaul supports the complete P2550 overhaul program, ensuring the fleet is overhauled in accordance with regulatory standards, according to the defined schedule and technical specifications requirements, and within Metro's internal standards, policies and procedures.

### **FINANCIAL IMPACT**

The approved Life-of-Project (LOP) for the P2550 Fleet Component Overhaul Program under capital project number 214001 is for the amount of \$35,007,546. Funding of \$357,356 for this Contract will be included and proposed in the FY20 budget in cost center 3944, Rail Fleet Services Maintenance, under project number 214001, line item 50441, Parts - Revenue Vehicle.

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 funds for this action is Transportation Development Act Article 4 (TDA). Use of this funding source currently maximizes project funding allocations within approved funding provisions and guidelines.

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

Approval of this recommendation supports the following Metro Strategic Plan Goal 2, Deliver outstanding trip experience for all users of the transportation system.

### **ALTERNATIVES CONSIDERED**

Deferral of this program is not recommended as the OEM is out-of-business and parts obsolescence is a significant concern to keep the static inverter operational until such time it will be a candidate for replacement during the Modernization overhaul. The static inverter is a safety critical device that, if not properly maintained, could result in equipment failures and events due to loss of vehicle 'house power' to door systems, interior lighting, and battery charging. The static inverter provides control power to all vehicle systems and upon failure, poses a high risk to passenger safety, negative impact to vehicle availability and reliability.

**NEXT STEPS**


Overhaul of the P2550 Light Rail Vehicle Static Inverter APS/LVPS will continue in accordance with Rail Fleet Services' scheduled requirements. If approved, the project is scheduled to commence in August 2019.

**ATTACHMENTS**

Attachment A - Procurement Summary  
Attachment B - DEOD Summary

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Phillip A. Washington  
Chief Executive Officer

## PROCUREMENT SUMMARY

**P2550 LIGHT RAIL VEHICLE (LRV) STATIC INVERTER APS/LVPS OVERHAUL  
CONTRACT NO. MA51966000**

1.	<b>Contract Number: MA51966000</b>	
2.	<b>Recommended Vendor:</b>	
3.	<b>Type of Procurement (check one):</b> <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	<b>Procurement Dates:</b>	
	A. <b>Issued:</b> April 17, 2018	
	B. <b>Advertised/Publicized:</b> April 23, 2018	
	C. <b>Pre-Proposal Conference:</b> May 1, 2018	
	D. <b>Proposals Due:</b> July 20, 2018	
	E. <b>Pre-Qualification Completed:</b> December 5, 2018	
	F. <b>Conflict of Interest Form Submitted to Ethics:</b> July 26, 2018	
	G. <b>Protest Period End Date:</b> March 25, 2019	
5.	<b>Solicitations Picked up/Downloaded:</b> 16	<b>Bids/Proposals Received:</b> 3 conforming proposals plus an alternate proposal
6.	<b>Contract Administrator:</b> Mona Ismail	<b>Telephone Number:</b> 213-922-7376
7.	<b>Project Manager:</b> Richard Lozano	<b>Telephone Number:</b> 323-224-4042

**A. Procurement Background**

This Board Action is to approve Contract No. MA51966000 issued to perform overhaul services for the Gold Line P2550 Light Rail Vehicle (LRV) Static Inverter APS/LVPS. Board approval of contract awards are subject to resolution of any properly submitted protest.

The Request for Proposals (RFP) was issued in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Quantity, Indefinite Delivery (IDIQ).

Three (3) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on May 21, 2018 provided details from pre-proposal and job walk, clarified technical specification, and extended the due date;
- Amendment No. 2, issued on June 7, 2018 extended the due date;
- Amendment No. 3, issued on July 10, 2018 extended the due date.

A Pre-Proposal Conference and job walk was held on May 1, 2018 and 20 questions were received and answered by Metro. A total of three (3) proposals and one (1) alternate proposal were received on July 20, 2018.

## **B. Evaluation of Proposals**

The procurement was conducted in accordance and complies with LACMTA's Acquisition Policy for a Technically Acceptable Lowest Price (TALP) competitive RFP procurement process. Three (3) proposals were received but the Proposal Evaluation Team (PET) deemed only two (2) proposals were technically acceptable to perform static inverter APS/LVPS overhaul. One (1) proposal was deemed technically unacceptable by the PET and was excluded from further consideration.

The alternate proposal received was not evaluated due to the proposer's conforming proposal was deemed technically unacceptable. Per the RFP, proposers submitting conforming proposals may submit alternate proposals to this RFP as complete separate offers, if the alternate proposals offer technical improvements or modifications that are to the overall benefit of Metro. The alternate proposal was returned unopened.

The two (2) technically acceptable proposals are listed below in alphabetical order:

	<b>Proposer Name</b>
1.	AmePower
2.	PSI Repair Services, Inc.

The PET evaluated each proposal to determine technical compliance and acceptability on a pass/fail basis against the evaluation criteria and posed questions that were answered by the proposers. Both firms met the technical acceptability requirements and the award recommendation was made to the lowest priced technically acceptable firm. AmePower was found to be the lowest price proposer in full compliance with the RFP and technical requirements.

## **C. Price Analysis**

This procurement was a TALP. AmePower offered the lowest total price proposal. The recommended total price from AmePower has been determined to be fair and reasonable based upon Metro's review and adequate price competition, in accordance with TALP RFP requirements. AmePower's price proposal exceeded Metro's Independent Cost Estimate (ICE) due to unknown variables that Metro Engineering did not account for in their original ICE, such as Contractor efforts to obtain certain obsolete parts and updating other parts to extend life of the unit through the contractual warranty period; thus, causing a variance between the ICE and the lowest price proposal.

	<b>Proposer Name</b>	<b>Proposal Amount</b>	<b>Metro ICE</b>
1.	AmePower	\$2,714,220.00	\$1,365,000
2.	PSI Repair Services, Inc.	\$3,427,323.78	\$1,365,000

#### **D. Background on Recommended Contractor**

The recommended firm, AmeTrade, Inc., dba AmePower, located in Miami, FL, has been in business since 2002 and is a leader in the insulated-gate bipolar transistor (IGBT) system upgrades and custom converters for Light Rail Vehicles, including overhaul, retrofit and manufacturing services for rolling stock systems such as Complete Converters; Low Voltage Power Supplies (LVPS); Phase Modules; Auxiliary Power Supplies (APS); and Battery Chargers. Amepower evolved as a leading supplier of power electronic components in the South East, to a full Power Electronics solutions provider, primarily focused in the Mass Transportation Industry.

AmePower has contracts for rail component overhauls with New York Transit of New York City and ACI Herzog of Puerto Rico. The firm has completed contracts to provide upgrade services with MARC of Maryland and WMATA of Washington, DC in the past 3 years. Amepower has a current contract with Metro to repair the A650 GTO Phase Modules which will be completed in 2019. AmePower's contract performance with Metro has been satisfactory.

## DEOD SUMMARY

**P2550 LIGHT RAIL VEHICLE (LRV) STATIC INVERTER APS/LVPS OVERHAUL  
CONTRACT NO. MA51966000**

**A. Small Business Participation**

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small/Disabled Veteran Business Enterprise (SBE/DVBE) goal for this procurement. While DEOD determined there was a lack of available SBE/DVBE certified firms to perform the specialized overhaul design and manufacturing work, staff continues to encourage eligible proposers to seek certification as SBEs. AMETRADE, Inc. responded accordingly, and was SBE certified prior to proposal due date. AMETRADE, Inc. made a 100% SBE commitment as a prime.

	<b>SBE Contractors</b>	<b>SBE % Committed</b>
1.	AMETRADE, Inc. (Prime)	100.00%
	<b>Total Commitment</b>	<b>100.00%</b>

**B. Living Wage and Service Contract Worker Retention Policy Applicability**

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

**C. Prevailing Wage Applicability**

Prevailing wage is not applicable to this contract.

**D. Project Labor Agreement/Construction Careers Policy**

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.