



Board Report

File #: 2018-0579, File Type: Agreement

Agenda Number: 19.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE OCTOBER 18, 2018

SUBJECT: METRO RED LINE (MRL) UNINTERRUPTIBLE POWER SUPPLY (UPS) BATTERIES

ACTION: ESTABLISH A MRL UPS BATTERY SUPPLIER BENCH

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING two contract agreements solicited as Request for Information and Qualification (RFIQ) No. OP44570-2 with M.C. Dean, Incorporated and Skyler Electric Company, Incorporated for goods and services for amount of \$2,244,000 for a two year base period and \$1,000,000 for three one year options for a total not-to-exceed cumulative value of \$3,244,000, subject to resolution of protest(s), if any;
- B. AUTHORIZING the CEO to award Task Orders to qualified UPS Battery suppliers under the approved not-to-exceed cumulative total value of \$3,244,000; and
- C. AUTHORIZING the CEO to add additional qualified Uninterruptible Power Supply (UPS) Battery suppliers to the Bench subject to each potential supplier meeting the same RFIQ evaluation criteria qualifications; and award Task Orders to these qualified suppliers within the approved not-to-exceed cumulative total value of \$3,244,000.

ISSUE

The Uninterruptible Power Supply units and batteries on the Metro Red Line Segments 2 and 3 are in need of replacement as this system has become obsolete. During the July 2018 Board meeting, Contract No. OP36847000 was approved (File ID 2018-0069) for the purchase of the UPS units and staff is now seeking approval to award Bench contracts for the purchase of MRL UPS batteries as they are critical in providing backup power for emergency lighting, fire and life safety equipment, and communications in the event of power loss on the Red and Purple Lines.

Task Orders for the efficient and timely procurement of MRL UPS batteries is necessary as batteries have a shelf life or period in which they remain effective, useful, or suitable for consumption, of only a few months. Therefore, it is neither recommended nor cost effective to order more quantities than needed at any specific time to have in inventory ready for field installation. In addition, UPS Batteries are manufactured with metals such as lead and copper and their cost varies with fluctuations in the

commodity market, affecting pricing stability. Also, commercial UPS batteries required for critical Metro emergency systems are produced by manufacturers, which have impacted acquisition lead times by approximately eight to ten weeks.

This bench will ensure that Metro has multiple qualified, reliable vendors who are able to provide batteries at a competitive price and within a reasonable timeframe over a five year period, particularly during emergencies or situations that can adversely impact safety, service and reliability for our customers and employees. The bench will also allow additional prospective suppliers to apply, be evaluated against the same RFIQ evaluation criteria, and if deemed qualified, join the MRL UPS bench, increasing competitive pricing, stability and reliability relative to battery supply for Metro.

BACKGROUND

The Metro Red Line has sixteen passenger stations and two facilities underground. These locations have a total of 36 UPS' with two or four hour battery banks in service. These banks of batteries are required to operate the UPS' and are critical for Fire and Life Safety functions. The UPS batteries provide emergency power for lighting and communication systems in order to evacuate patrons and employees when normal utility power to the underground passenger stations and facilities is interrupted or lost.

DISCUSSION

The UPS in the Red and Purple Lines provides backup power for emergency lighting, fire and life safety equipment, and communications in the event of power loss. These systems facilitate the safe evacuation of passengers and staff during an emergency on the subway system. The UPS equipment is a complex system of electronic controls, transformers, inverters, circuit boards, battery banks, and a battery charger. When battery or other system failures occur, it is essential that Metro have the staff and battery components available to restore system functionality in the shortest possible time to minimize risk and continue the delivery of service.

In the event of a loss of utility power, each station has one or two banks of emergency back-up batteries that provide up to four hours of emergency power to (1) provide traction power control power, (2) provide power to operate Supervisory Control and Data Acquisition systems (SCADA), (3) operate Communication Systems, (4) operate Fire Life Safety monitoring (such as fire alarm, gas analyzers, etc.), and (5) Fire Life Safety mitigation systems (such as standpipes, deluge systems, etc.). The banks of batteries being proposed for replacement have reached the end of their useful life.

Staff recommends Task Orders to cover the immediate replacement of batteries that have reached the end of their useful life and subsequent batteries as they reach their lifespan end during the next five years.

DETERMINATION OF SAFETY IMPACT

Approval of this award will have a positive impact on safety as the UPS is required for the proper functioning of critical emergency lighting for tunnels and passenger station evacuations. UPS

batteries also provide electrical power to operate law enforcement and Metro Security radio and communication systems, Variable Message Signs and Supervisory Control and Data Acquisition systems (SCADA). UPS batteries are also required for the control power to operate substation High Voltage Switchgears.

FINANCIAL IMPACT

The total five-year contract amount is not to exceed \$3,244,000. Funding for Task Orders will come from Capital Project (CP) 205106 - Metro Red Line UPS Batteries Replacement and any future or ongoing capital projects established for the purchase of batteries for the Red Line as a part of Metro's State of Good Repair program. The Board approved a Life-of-Project (LOP) budget of \$3,684,000 in FY 17 for CP 205106. Funding of \$943,232 in CP 205106 is included in the FY 19 budget in cost center 3960 Rail Transit Engineering, project 205106, account 53102 - acquisition of equipment.

Since this is a multi-year contract, the Project Manager will ensure that the balance of funds is budgeted in future fiscal years in the appropriate capital projects.

Impact to Budget

The current source of funds for this action are Proposition A 35%. This funding source currently maximizes allowable project funding allocations given approved funding provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal 1: Provide responsive, accountable, and trustworthy governance within the Metro organization. This project will help maintain safety, service and reliability standards 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.

ALTERNATIVES CONSIDERED

These requirements could be filled, as they occur, through a series of single source procurements, however, this approach is not recommended since it adds unnecessary cycle time and adds to the risk brought about by a battery failure. There are no other suitable energy sources to operate the critical emergency loads.

NEXT STEPS

Upon Board approval, staff will proceed with issuing contracts and compete Task Orders among qualified suppliers on the bench.


ATTACHMENTS

Attachment A - Expenditure Plan
Attachment B - Procurement Summary
Attachment C - DEOD Summary

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