

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: FEBRUARY 26, 2018

ITEM NO: 11

SUBJECT: **AWARD RFQ-802 FOR FURNISHING AND DELIVERING SUBSTATION AUTOMATION SYSTEM EQUIPMENT TO ROYAL INDUSTRIAL SOLUTIONS OF RIVERSIDE, CALIFORNIA, IN THE AMOUNT OF \$789,344.19 FOR THE SUBSTATION AUTOMATION UPGRADE PROJECT - APPROVE WORK ORDER NO. 1816163 FOR \$2,027,679**

ISSUES:

Award RFQ-802 for furnishing and delivering substation automation system equipment to Royal Industrial Solutions of Riverside, California, in the amount of \$789,344.19; and approve Work Order No. 1816163 in the amount of \$2,027,679 for the Substation Automation Upgrade Project.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Award RFQ-802 for furnishing and delivering substation automation system equipment to the lowest local responsive bidder Royal Industrial Solutions of Riverside, California, in the amount of \$789,344.19; and
2. Approve Work Order No. 1816163 in the amount of \$2,027,679 for the Substation Automation Upgrade Project.

BACKGROUND:

Substation Automation Systems (SAS) are an integration of electronic equipment that forms a centralized system which provides control, monitoring and automation capabilities within a substation. It provides visibility of the electric distribution network to the system operators and allows them to remotely control and manage the electrical network.

The existing SAS deployed in the City of Riverside was designed to provide real-time operational data to system operators through Supervisory Control and Data Acquisition (SCADA). The existing SAS are a combination of legacy and contemporary equipment. The existing and projected data traffic, security requirements and integration capabilities presents challenges to the existing SAS. The system is antiquated and lacks the capability to support modern smart grid applications. Also, the system has limited integration capabilities as it relates to modern intelligent electronic devices (IED).

At most utilities, SAS goes beyond the traditional SCADA by providing capabilities and information that can improve operational efficiency, maintenance, and reliability. Also, modern SAS are the foundation for critical programs such as predictive maintenance, distribution automation, and infrastructure risk management.



Substation Automation Equipment

DISCUSSION:

As part of RPU's grid modernization program, new scalable SAS will be implemented at 12 substations. The new SAS will support the integration of advanced online monitoring devices for equipment such as substation transformers and high voltage circuit breakers. This implementation will provide comprehensive data to engineering and operation staff to monitor and evaluate the system condition, so that investments can be optimized to address aging and distressed infrastructure.

Engineering staff has determined to complete this project into two phases to have a seamless progress and achievable milestones. The scope of work of the first phase includes replacing old SAS equipment with new programmable hardware, testing and commissioning new SAS equipment, programming SAS equipment, and staff training.

Seven vendors were invited to submit bids through a Request for Quotation procurement process run by Riverside Public Utilities for equipment and material. Six vendors submitted quotes. Pursuant to Resolution No. 23256, a contract for goods may be awarded to the local Responsive bidder if the Bid difference amount between the local Responsive Bidder and the Lowest Responsive Bidder does not exceed five percent (5 %). Staff evaluated the quotes and deemed Royal Industrial Solution to be the lowest local Responsive Bidder. The bid was within the engineer's estimate.

The bids are summarized in the table below:

Vendors	Location	Proposal Amount	Local Preference Adjustment	Evaluation
1. Royal Industrial Solutions	Riverside, CA	\$789,344.19	\$749,879.98	Lowest Local Responsive Bidder
2. Anixter	Glenview, IL	\$764,594.93	NA	2 nd
3. OneSource Distributors	Ocean Side, CA	\$766,045.49	NA	3 rd
4. Concept Power Inc.	Las Vegas, NV	\$771,508.39	NA	4 th
5. Wesco	Pittsburgh, PA	\$793,336.31	NA	5 th
6. Graybar	St. Louis, Missouri	\$852,528.49	NA	6 th

➤ *Engineer's Estimate* \$800,000

The project breakdown is proposed as follows:

Project Breakdown	
Engineering Performed By:	RPU engineering staff
Civil Work Performed By:	None
Electrical Work Performed By:	RPU field forces
Anticipated Start Date:	June 2018
Anticipated Duration:	10 Months
Coordination Required With:	RPU field forces
Reimbursements:	None

The Purchasing Manager concurs that the recommended action is in compliance with the current purchasing Resolution 23256.

The breakdown of the total capital expenditure as follows:

Description	Amount (\$)
Purchase Order to Royal Industrial Solutions	\$789,344.19
Misc. Equipment and Material	\$80,000
Project Management and Engineering Design	\$300,000
Electric Construction Substation	\$200,000
SCADA, Field Testing and Commissioning	\$474,000
Contingency (10%)	\$184,334.81
Total	\$2,027,679

Upon successful completion of the project's first phase, staff will return to the board for the next phase of the project to request funds to replace the remote terminal units (RTU) which is a legacy SAS equipment. The scope of the work for phase 2 will also include programming, and testing and commissioning of the new SAS equipment.

FISCAL IMPACT:

The total fiscal impact is \$2,027,679. Sufficient funds are available in Public Utilities' Electric Capital Account No. 6130000-470616.

Prepared by: George R. Hanson, Utilities Assistant General Manager/Energy Delivery
Approved by: Todd Jorgenson, Utilities Interim General Manager
Approved by: John A. Russo, City Manager
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Laura M. Nomura, Utilities Assistant General Manager/Finance

Attachments:

1. Award Recommendation
2. Presentation

