



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JULY 26, 2021

SUBJECT: BID NO. RPU-2103 CIRCUIT 1502 SWITCH AND CABLE REPLACEMENT PROJECT, PHASE 1, WITH E.E. ELECTRIC, INC. IN THE AMOUNT OF \$94,401; WORK ORDER NO. 2009293 IN THE AMOUNT OF \$705,000

ISSUES:

Consider awarding Bid No. RPU-2103 to E.E. Electric, Inc. for Circuit 1502 Switch and Cable Replacement Project, Phase 1, in the amount of \$94,401; and approve the capital expenditure for Work Order No. 2009293 in the amount of \$705,000.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Award Bid No. RPU-2103 to E.E. Electric, Inc., of Mira Loma, California, in the amount of \$94,401 for Circuit 1502 Switch and Cable Replacement Project, Phase 1;
2. Approve the capital expenditure for Work Order No. 2009293 in the amount of \$705,000 which includes all design, construction, construction support, contract administration, inspection and construction change order authority costs for Circuit 1502 Switch and Cable Replacement Project, Phase 1; and
3. Authorize the City Manager, or designee, to execute any documents necessary to effectuate the project described herein, as well as the ability to make minor non-substantive changes in alignment with all purchasing policies.

BACKGROUND:

Freeman Substation Circuit 1502 has been experiencing power outages and reliability issues due to the high failure rate of aged cables and protection issues involving obsolete underground distribution equipment. The circuit is served by HMPE insulated cable (high molecular weight polyethylene) and CIC type infrastructure (cable-in-conduit). This type of cable and infrastructure is responsible for 70% of Riverside Public Utilities' (RPU) electric system outages. Additional infrastructure serving Circuit 1502 includes obsolete submersible oil switches without fusing options that contribute to longer outages. With this type of equipment, In the event of an outage, the entire circuit trips as there is no other protection except at the Substation, and as a result, the entire circuit requires troubleshooting and manual restoration.

This Phase 1 project will replace the existing obsolete underground distribution equipment and deteriorated cable with new underground electrical distribution facilities to improve the electric service to customers in the area, improving overall electric system reliability and safety. This upgrade will also enhance system switching capabilities with circuits in the vicinity improving overall system reliability.

DISCUSSION:

Project Description

The Freeman Substation Circuit 1502 Reliability Improvement Project’s scope of work includes the installation of approximately 102 trench feet of conduit, approximately 15,000 circuit feet of underground primary cable, two three-phase pad mounted junction cabinets (PJC), one pad mounted switch cabinet (PSE), three slab boxes, asphalt paving and related electrical distribution facilities. This project also includes the removal and replacement of one submersible oil switch.

The project will upgrade electrical distribution facilities in the area west of Tyler Street, south of Magnolia Avenue, north of Shoshone Avenue, and will provide essential upgrades that benefit large number of customers resulting in a number of benefits including: improved reliability and system safety, improved electric services and power quality for customers, reduced system operational work, and reduced duration and number of outages. The project will also include dielectric automated switch technology with the base condition maintenance to reduce overall cost and time. In addition, the switch replacement will facilitate the relocation of an existing circuit tie between Freeman Substation Circuit 1502 and Harvey Lynn Substation Circuit 1292, from an overhead scheme of pole disconnects, to the new underground automated switch.

Customers affected by the project will be notified of all outages prior to any work commencement, and any resulting electric service disruptions will be coordinated with customers to minimize any impact.



Typical Trench and Conduit Installations



Typical Pad Mounted Switch W/ Protection

Bid No. RPU-2103

Bid No. RPU-2103 for the Circuit 1502 Reliability Improvement Project, Phase 1 (the civil construction portion of the project), was posted on the City’s Online Bid System on May 12, 2021

and closed June 4, 2021. Four vendors submitted bids for the project. Staff evaluated the bids and deemed E. E. Electric, of Mira Loma, California, to be the lowest responsive and responsible bidder. The bid was above the engineer’s estimated amount of \$68,902.60 due to higher than anticipated labor costs associated with the project site restoration.

The bids are summarized in the table below:

Vendors	City Location	Bid Amount	Rank
E.E. Electric, Inc.	Mira Loma, CA	\$94,401.00	1
VCI Construction LLC	Upland, CA	\$109,203.00	2
Stronghold Engineering, Inc.	Perris, CA	\$117,821.07	3
Doty Bros. Equipment Company	Norwalk, CA	\$156,526.33	4
➤ <i>Engineer's Estimate</i>		\$68,902.60	

Total Project Cost

The project and fiscal breakdown is proposed as follows:

Project and Fiscal Breakdown		
Work Type	Performed By:	Amount (\$)
Project Management and Engineering	RPU Engineering	\$14,644
Civil Construction:	E.E. Electric, Inc	\$94,401
Electrical Work	RPU Field Forces	\$528,525
Design	RPU Engineering	\$57,990
Civil Contract Contingency (10%)		\$9,440
Work Order Total:		\$705,000
Anticipated Start Date:		September 2021
Anticipated Duration:		30 weeks

The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23256.

Alignment with Envision Riverside 2025 Strategic Plan:

This project aligns with all of the City’s Strategic Plan cross-cutting threads by ensuring community trust, equity, and sustainability and resiliency by improving electric utility reliability and improvements of services and supports fiscal responsibility by responsibly managing the City’s financial resources.

Additionally, the project directly supports Strategic Plan Priority 6: Infrastructure, Mobility & Connectivity Priority. Specifically, Goal 6.2 states, “Maintain, protect and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.”

FISCAL IMPACT:

The total fiscal impact is \$705,000. Sufficient funds are available in Public Utilities Electric Capital Account No. 6130100-470635.

Prepared by: Daniel E. Garcia, Utilities Deputy General Manager
Approved by: Todd M. Corbin, Utilities General Manager
Approved by: Al Zelinka, FAICP, City Manager
Approved as to form: Kristi J. Smith, Interim City Attorney
Certifies availability
of funds: Edward Enriquez, Chief Financial Officer/City Treasurer

Attachments:

1. Project Site Map
2. Bid Award Recommendation
3. Presentation