

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: MAY 23, 2016

ITEM NO: 18

File 16-1586

SUBJECT: APPROVAL OF WORK ORDER NO. 1514752 FOR \$2,198,993 AND AWARD OF A PURCHASE ORDER FROM REQUEST FOR PROPOSAL 1576 TO DELTA STAR FOR A MOBILE SUBSTATION FOR \$1,977,993

ISSUES:

The issues for Board of Public Utilities consideration are: 1) the approval of Work Order No. 1514752; and 2) the award of a purchase order from Request for Proposal (RFP) 1576 to the lowest responsive and responsible bidder, Delta Star, Inc. for the purchase of a mobile substation with switchgear.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Approve Work Order No. 1514752 in the amount of \$2,198,993; and
2. Approve the award of a purchase order in the amount of \$1,977,993 to Delta Star, Inc. of San Carlos, California, for a 30 MVA (mega-Volt-Amp) mobile substation.

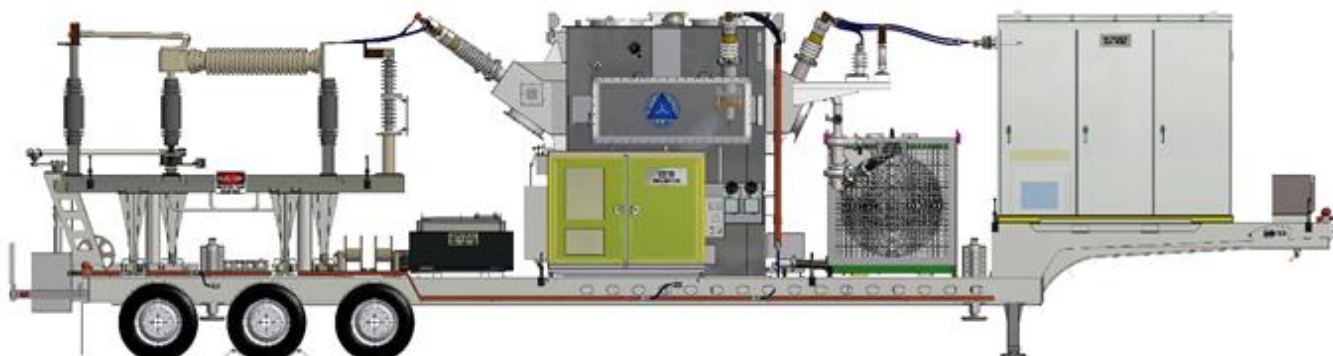
BACKGROUND:

A mobile substation is a portable power solution for use inside the Riverside Public Utilities (RPU) neighborhood power centers known as substations. It is a portable self-contained substation, mounted on a trailer, and ready for rapid integration into the electric distribution grid to provide power to customers under unusual and emergency conditions. Mobile substations can be relocated in a short period of time and are an effective and necessary tool to improve operating flexibility and system reliability during prolonged planned and unplanned equipment outages.

RPU currently owns two older mobile substations. Mobile Substation #1 (Mobile 1), was built in 1961, is 55 years old, and has very limited capacity. Mobile Substation #2 (Mobile 2), was built in 1986, is 30 years old, and has the capacity to temporarily replace many existing RPU substation transformers. Both Mobile 1 and 2 include transformers located on flat bed trailers. However, neither Mobile 1 nor 2 have switchgear integrated onto the trailer allowing it to feed multiple circuits. As Riverside has grown, the ability to feed more distribution circuits has become more critical. In contrast to Mobile 1 and 2, the enhanced design of Mobile 3 will allow RPU to respond more effectively to the loss of a substation transformer and switchgear, such as the Harvey Lynn Substation incident. The need for Mobile 3 was identified as part of the lessons learned from the Harvey Lynn incident.

RPU needs additional capability to respond to emergency conditions, such as substation equipment failures, particularly during the summer peak loading months, as well as necessary equipment replacements like those recommended as part of the Utility 2.0 planning. Mobile 3 will enable rapid

restoration of distribution grid service while bypassing damaged equipment, and allow time to purchase replacement equipment that has long delivery lead times. The figure below shows an elevation view of Mobile 3.



Mobile 3 Substation with Switchgear

On December 22, 2015, staff issued a Request for Proposals (RFP 1576) through the Purchasing Department for a mobile substation with switchgear. Four vendors submitted proposals on February 2, 2016. The evaluation panel deemed Delta Star to be the lowest responsive and responsible proposer and their total price was within the engineer's estimate of \$2,200,000. The evaluation results are shown in the table below:

Vendors:	Base Proposal Amount with Taxes	Evaluation
1. Delta Star	\$1,965,679	Lowest Responsive and Responsible Bidder
2. CG	\$2,132,040	2 nd Lowest Bid
3. ABB	\$2,244,560	3 rd Lowest Bid
4. Enerset	\$2,417,247	4 th Lowest Bid

➤ *Engineer's Cost Estimate* \$2,200,000

The total purchase price of \$1,977,993 includes the base price of \$1,965,679 and several minor items specified as options in the amount of \$12,314. Project management, design review, factory acceptance testing, and commissioning will be completed by RPU staff. The total capital expenditure for Mobile 3 including all costs for equipment, materials, engineering, testing, overhead, are as follows:

Item Description	Sub-total	Percent of Total
Delta Star Contract	\$1,977,993	90%
RPU Engineering	\$161,000	7%
RPU Factory Acceptance Testing and Commissioning	\$60,000	3%
Work Order Total	\$2,198,993	100%

The Purchasing Services Manager concurs that the recommended actions comply with the City of Riverside's Purchasing Resolution No. 22576.

FISCAL IMPACT:

The total capital expenditure for Work Order No. 1514752 is estimated to be \$2,198,993. Sufficient funds are available in Public Utilities Capital Account 6130000-470632.

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Approved by: Girish Balachandran, Utilities General Manager
Approved by: John A. Russo, City Manager
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Laura Chavez-Nomura, Utilities Assistant General Manager/Finance

Attached: Presentation