



BID NO. SUB-849 15KV CIRCUIT BREAKER REPLACEMENT PROJECT FOR A TOTAL CAPITAL EXPENDITURE AMOUNT OF \$490,000

Energy Delivery

Board of Public Utilities
May 24, 2021

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BACKGROUND

Substation Power 15kV Circuit Breakers

1. Protect the distribution system from electrical faults
2. Provide means to isolate sections for maintenance, switching or construction
3. Critical component for the reliability, safety and maintenance of distribution system

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BACKGROUND



Drawout Breaker Racked out
breaker in a Switchgear



Drawout
Distribution
Circuit
Breaker

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BACKGROUND

Aging Infrastructure Replacement Approach

Modernization of aging infrastructure is the key to improved reliability and performance:

1. Run to failure leads to long outages
2. Replace equipment before in-service failure occurs
3. Coordination of work is critical to minimizer service to customers



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BACKGROUND

Staff identified 15 distribution circuit breakers in RPU's electric system that have:

1. Exceeded their service life
2. Problematic or unavailable replacement parts
3. Electrical testing data

PROJECT SITE MAP

Replacement of 15 aging Circuit Breakers at three substations

1. Kaiser (two circuit breakers)
2. Riverside (seven circuit breakers)
3. Harvey Lynn (six circuit breakers)



Project Map

BENEFITS

1. Increase substation/distribution system reliability
2. Provide safer conditions to personnel and protect expensive equipment by isolating faults
3. Reduce maintenance costs and repair efforts
4. Avoid potential unplanned service disruptions in the event of equipment failure

SCOPE OF WORK

1. The scope of work includes project management, procurement, testing, and the installation of breakers
2. Construction - RPU forces will perform installations and testing
3. Coordinate any potential service disruptions with Electric Grid Operations
4. 2-3 weeks to complete work

BID RESULTS

Vendors	Location	Bid Amount	Ranking
Anixter Inc.	Corona, CA	\$470,877.02	1st
OneSource Distributors	Riverside, CA	\$470,895.11	2nd
Graybar Services, Inc.	San Bernardino, CA	\$491,804.99	3rd
Bisco Industries	Anaheim, CA	\$506,634.96	4th

Engineer's Estimate \$490,000

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PROJECT BREAKDOWN

Project & Fiscal Breakdown		
Work Type	Performed By:	Amount (\$)
Procurement of Circuit Breaker per Bid No. SUB-849	Anixter Inc.	\$470,877.02
Project Management	RPU Engineering	\$2,000.00
Installation and Testing	RPU Substation Crews	\$17,122.98
Work Order Total:		\$490,000.00
Anticipated Start Date:		August 2021
Anticipated Completion Date:		September 2021

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RECOMMENDATIONS

That the Board of Public Utilities:

1. Award Bid No. Sub-849 for Multiple Substations 15kV Circuit Breaker Replacement Project with Anixter, Inc., of Corona, California in the amount of \$470,877.02; and
2. Approve Work Order No. 2120986 for Multiple Substations 15kV Circuit Breaker Replacement Project in the amount of \$490,000.