

To: Honorable Public Utilities Board

Submitted by: / S /

Andre Basler

AGM – Engineering and Operations

From: Ernest Benjamin
Electrical Equipment Superintendent

Approved by: / S /

Nicolas Procos
General Manager

Subject: By Motion, Approve the Purchase of Testing Equipment through Technology International, Inc., in an Amount Not to Exceed \$136,739

RECOMMENDATION

By motion, approve the purchase of testing equipment through Technology International, Inc., in an amount not to exceed \$136,739.

BACKGROUND

Alameda Municipal Power’s (AMP) grid protection includes components such as relays, which are types of instrument transformers needed to operate a safe and reliable system. Specialized test equipment is necessary to perform mandatory and regulatory testing on these critical devices.

Microprocessor-based relays are computers with preset programming using inputs from various external devices and sensors. Inputs are analyzed to determine operational parameters. The microprocessor relay’s response time is directly related to the amount of programming and its processor speed. Early microprocessor speeds were comparatively slow and simple. As each additional feature or level of complexity is added, the processor speed must be increased to compensate for the additional processing.

DISCUSSION

AMP is upgrading electromechanical protection relays at Jenney Substation to microprocessor-based relays, requiring acceptance and commissioning testing during the replacement project, and regular maintenance testing thereafter.

The test equipment that AMP presently owns does not have the capability to perform the required testing of these devices. The new relay devices that AMP has procured require more complex testing than the present test set can perform to stay in compliance with standards and regulations. The test set requested will have the capabilities to perform the required testing and troubleshooting of all of AMP’s new and old protection relays.

AMP posted a request for quote (RFQ) for two Megger Test sets on January 19, 2023, in AMP's e-procurement system, PlanetBids. The PlanetBids e-procurement system notified 300 vendors registered with AMP based on selective criteria.

On February 13, 2023, a total of three quotes were received and bid results were made public on AMP's e-procurement system. Staff reviewed the bid submittal documents and disqualified the apparent lowest bidder, Sierra Utility Sales, due to non-compliance. Specifically, AMP requested all bids to be based on free on board (FOB) Alameda, CA, but Sierra Utility Sales quoted based on FOB Factory. The next lowest bidder, Technology International, Inc., met the requirements for a responsive and responsible bidder. A summary of the bid results is included in Exhibit A.

NEXT STEPS

If approved, staff will initiate purchasing the MRCT and SMRT46 relay and current transformer testers as soon as possible.

FINANCIAL IMPACT

AMP has sufficient funds in its fiscal year 2023 budget for substation equipment.

LINKS TO STRATEGIC PLAN AND METRICS

Business Resiliency, Strategy 1: AMP will develop an asset management plan to guide efficient capital and maintenance expenditures which improve system operations and resiliency.

EXHIBITS

A. Bid Results

Alameda Municipal Power
 Bid Results for Project Megger Testing Equipment for Substations
 Issued on 01/19/2023
 Bid Due on February 13, 2023 3:00 PM (PST)
 Exported on 02/14/2023

Line Totals (Unit Price * Quantity)

| Item Number | Section | Description | Manufacturer | Model Number | Brand Requirement | Delivery Location | Unit of Measure | Quantity | Sierra Utility Sales, Inc - Unit Price | Sierra Utility Sales, Inc - Line Total | Sierra Utility Sales, Inc - Response | Technology International, Inc. - Unit Price | Technology International, Inc. - Line Total | Technology International, Inc. - Response | CBIONE - Unit Price | CBIONE - Line Total | CBIONE - Response | CBIONE - Comment |
|-------------|----------------|---|--------------|--------------------|-------------------|---|-----------------|----------|--|--|--------------------------------------|---|---|---|---------------------|---------------------|-------------------|--------------------------|
| 1 | Relay Test Set | SMRT46 with BAT SIM, floating ungrounded common returns, test leads | Megger | SMRT46-30P0F0A0 S1 | Sole Brand | Alameda Municipal Power Main Office; 2000 Grand Street; Alameda, CA 94501 | EA | 1 | \$68,450.00 | \$68,450.00 | Yes | \$85,921.00 | \$85,921.00 | Yes | \$85,562.50 | \$85,562.50 | Yes | |
| 2 | Relay Test Set | Certificate of Calibration | | | | | EA | 1 | \$670.00 | \$670.00 | Yes | \$0.00 | \$0.00 | Yes | \$670.00 | \$670.00 | Yes | |
| 3 | Relay Test Set | 24-month extended warranty | | | | | EA | 1 | \$6,845.00 | \$6,845.00 | Yes | \$0.00 | \$0.00 | Yes | \$6,845.00 | \$6,845.00 | Yes | |
| | | | | | | | | | Subtotal | \$75,965.00 | | | \$85,921.00 | | | \$93,077.50 | | |
| 4 | CT Test Set | MRCT with CT Testing, standard leads | Megger | MRCT-SOCON1A0 MOS | Sole Brand | Alameda Municipal Power Main Office; 2000 Grand Street; Alameda, CA 94501 | EA | 1 | \$23,935.00 | \$23,935.00 | Yes | \$30,452.00 | \$30,452.00 | Yes | \$29,918.75 | \$29,918.75 | Yes | |
| 5 | CT Test Set | Certificate of Cablibration | | | | | EA | 1 | \$550.00 | \$550.00 | Yes | \$0.00 | \$0.00 | Yes | \$550.00 | \$550.00 | Yes | |
| 6 | CT Test Set | 24-month extended warranty | | | | | EA | 1 | \$2,393.00 | \$2,393.00 | Yes | \$0.00 | \$0.00 | Yes | \$2,393.50 | \$2,393.50 | Yes | |
| | | | | | | | | | Subtotal | \$26,878.00 | | | \$30,452.00 | | | \$32,862.25 | | |
| 7 | Section 1 | Sales tax 10.75% for both test sets | | | | | EA | 1 | \$11,055.62 | \$11,055.62 | Yes | \$20,365.28 | \$20,365.28 | Yes | \$12,414.23 | \$12,414.23 | Yes | for Line item 1 & 4 only |
| | | | | | | | | | Subtotal | \$11,055.62 | | | \$20,365.28 | | | \$12,414.23 | | |
| | | | | | | | | | Total | \$113,898.62 | | | \$136,738.28 | | | \$138,353.98 | | |