

EWEB Board Consent Calendar Request

For Contract Awards, Renewals, and Increases

The Board is being asked to approve a contract with **Mitsubishi Electric Power Products, Inc.** for **115/230 kV circuit breakers.**

Board Meeting Date: 1/4/2022
Project Name/Contract #: 115kV/230kV Circuit Breakers Contract 21-226-G
Primary Contact: Karen Kelley Ext. 7153

Contract Amount:

Original Contract Amount: \$2,400,000
Additional \$ Previously Approved: \$0
Invoices over last approval: \$0
Amount this Request: \$0
Percentage over last approval: 0%
Resulting Cumulative Total: **\$2,400,000**

Contracting Method:

Method of Solicitation: Formal Request for Proposals
If applicable, basis for exemption: N/A
Term of Agreement: Initial term is 1 year
Option to Renew? Yes
Approval for purchases "as needed"
for the life of the Contract: Yes No
Proposals/Bids Received (Range): 2 – (\$2,099,134 to \$2,307,440)
Selection Basis: Highest Ranked Proposer
Narrative:

Operational Requirement and Alignment with Strategic Plan

This contract is to allow the programmatic replacement of obsolete high-voltage oil breakers as well as to support the upcoming 10-year Electric Capital Plan which includes \$151 million of substation improvements.

EWEB owns and operates over 100 high-voltage (115kV) circuit breakers in our local transmission system. Each transmission breaker serves load throughout EWEB's high-voltage transmission network and, when necessary, clears faults by automatic protection and control safely and reliably.

EWEB has invested in the replacement of these aging assets regularly since 2008. This investment has allowed several oil filled circuit breakers, many of which were installed in the 1970's, to be replaced with smaller, lighter, and less maintenance intensive SF6 circuit breakers. While SF6 is a great material for suppressing dangerous electrical arcs in high-voltage circuit breakers, it is a potent greenhouse gas and the total inventory and use of it is monitored by EWEB staff per environmental policies and regulations. New technologies which move away from this gas are still in their infancy and EWEB is monitoring other utilities pilot projects for future implementation.

One of EWEB’s Organizational Values is Environmental Stewardship which includes a goal of reducing greenhouse gasses contributing to Climate Change. This contract supports this value by allocating 15% of the final RFP scoring to manufacturers showing evidence of development of a circuit breaker that doesn’t use SF6; referred to as a vacuum circuit breaker in the RFP. This decision ended up being very influential in the scoring. The intent of this choice is that this contract would be modified as these vacuum breakers come into the market so that EWEB could transition to this new technology without the need to conduct a new RFP. Staff would amend this proposed contract to add the new breakers and would seek Board approval for additional funds as required.

Contracted Goods or Services

As needed manufacture and delivery of 115kV and 230kV SF6 circuit breakers for the life of the contract. No field services are included with this contract.

Purchasing Process

A formal Request for Proposals was posted to ORPIN in October 2021. Three responses were received and two were deemed responsive and responsible. Criteria for scoring included:

- Product Compliance with Specifications (40 points)
- Terms and conditions / Responsiveness (10 points)
- Capabilities (10 points)
- Vacuum Breaker Development (15 points)
- Pricing (25 points)

The proposals were evaluated and ranked in order of best overall value and price. Mitsubishi Electric Power Products, Inc. was selected as the highest ranked proposer.

Product compliance with specifications and capabilities were similar between both bids with both bidders generally meeting the provided specification with minimal exceptions and capabilities to manufacture and service their products being similar.

Terms and conditions provided a slight variation in scoring due to Carlson Sales accepting all provided EWEB terms while Mitsubishi Electric provided suggested edits which were reasonable to begin negotiations upon first review.

The proposal was evaluated assuming that EWEB will purchase twenty (20) 115kV breakers and two (2) 230kV breakers. This was done to provide a baseline price on both 115kV circuit breakers and 230kV circuit while also acknowledging that EWEB plans to purchase many more 115kV circuit breakers than 230kV circuit breakers.

A major factor in determining the highest ranked proposer of this RFP was the vacuum breaker development. Mitsubishi Electric currently has a 38kV vacuum breaker on the market with plans to provide a 145kV vacuum breaker by October 2022. GE Grid Solutions (Carlson) is not developing a vacuum circuit breaker but is instead modifying their SF6 design to accommodate a new proprietary gas mixture comprised primarily of CO2. While this design indicated an effort to reduce greenhouse gasses in these products, it was unclear if it would eliminate the use of SF6 or just reduce it.

Proposals Received

Vendor Name	Manufacturer	City, State	Offered Price	Ranking
Carlson Sales Metering	GE Grid Solutions	Battle Ground, WA	\$2,002,750	2
Gore Electric	Mitsubishi Electric	Warrendale, PA	\$2,307,440	1
Anixter/Wesco	Hitachi Energy	Portland, OR	\$2,911,010	N/A

Prior Contract Activities

EWEB purchased approximately twenty (20) 115kV circuit breakers from Mitsubishi for the expansion of Willow Creek Substation and construction of Hyundai and McKenzie Substations in 1996. Records suggest that Mitsubishi performed well during these projects, and they have maintained support for these circuit breakers.

ACTION REQUESTED:

Management requests the Board approve a contract with Mitsubishi Electric Power Products, Inc. for 115/230 kV breakers. Funds for these breakers are accounted for in the proposed 2022 Electric Capital Improvement Plan of \$55 million. Variances will be managed within the budget process and Board policy.