

ITEM#: 37
DATE: 06-13-23
DEPT: Electric

COUNCIL ACTION FORM

SUBJECT: 161kV SF6 CIRCUIT BREAKER FOR ELECTRIC SERVICES

BACKGROUND:

Electric Services operates electrical transmission and distribution infrastructure to route electricity to customers in the community. Large circuit breakers are installed in the system's infrastructure, which are utilized to disconnect portions of the electric transmission system when there is a fault on that portion of the system. This helps isolate and minimize the area effected by a system fault, prevents damage to property and equipment, and minimizes the risk to personnel and the public who may be near a fault.

Electric Services needs to procure a 161kV SF6 circuit breaker for Electric Services' inventory, which will be kept on hand for the emergency replacement of a breaker in the event of a breaker failure of one of the six existing breakers. Reliability of these breakers is of high importance, and restoration time in the event of a breaker failure must be kept to a minimum. Therefore, staff specified the procurement of a spare breaker that is identical to the existing breakers in service. Due to significant lead times, a backup replacement circuit breaker must be ordered now. The expected lead time is 95-100 weeks.

On May 4, 2023, the Invitation to Bid (ITB) was posted to the IonWave electronic bidding site by Purchasing. On May 23, 2023, two bids were received as shown below.

BIDDER	TOTAL COST
Border States, Ames, IA	\$119,823.95
Solomon Corporation, Solomon, KS	Non-responsive

*inclusive of sales tax

The bid submitted by Solomon Corporation did not meet the required specifications. The breaker proposed by Solomon would require adjustments to breaker controls, foundations, wiring design, and conduit and conductor locations at the time of installation. Since this breaker is being purchased to serve as a spare, these adjustments would add unacceptable delay to an urgent replacement installation, if it was to be necessary.

The breaker proposed by Border States is identical to the breakers currently installed in the electric system. Staff has determined that the bid from Border States Electric, Ames, IA, is acceptable. It should be noted that 161 kV breakers prices are up 20% from a year ago. Long lead times and continued upper pressure on prices are anticipated to remain for the next year.

The breaker will be placed into the Electric inventory, where it will be reserved until needed. Once placed in service, the cost of the breaker will be assigned to the appropriate project account.

ALTERNATIVES:

1. Award a contract to Border States Electric, Ames, IA, for one 161kV SF6 Circuit Breaker in the amount of \$119,823.95 (inclusive of sales tax).
2. Reject bids and direct staff to rebid.

CITY MANAGER'S RECOMMENDED ACTION:

The purchase of this equipment is necessary to provide a system spare for the 161kV transmission system in the event of a breaker failure. **Lead time for this equipment has increased significantly making it more difficult to procure replacement breakers in a timely manner. Therefore, it is important to have a spare replacement breaker on hand for emergency replacements. This breaker will serve as a spare for any of the six similar 161kV breakers the City currently has in service.** Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as stated above.