

ITEM #:	21
DATE:	05-12-26
DEPT:	ELEC

COUNCIL ACTION FORM

SUBJECT: ELECTRIC POWER PLANT UNIT 8 BATTERY REPLACEMENT

BACKGROUND:

The Power Plant battery system provides reliable backup power for critical plant operations, ensuring functionality during a loss of normal power. The battery system supplies energy to plant control systems, protection relays, breaker trip and control circuits, instrumentation, and emergency shutdown systems, allowing the plant to safely respond to plant power outages and maintain control under all conditions.

Over time, these backup batteries deteriorate due to normal chemical aging, leading to decreased capacity, higher internal resistance, and an increased likelihood of failure when placed under load. Because these issues are often not evident during routine operation, continued use of aging batteries poses significant operational and safety risks. The batteries used to back up Unit 8's systems have reached the end of their lifespan and need to be replaced.

On March 4, 2026, an Invitation to Bid was posted to AmesBids by Purchasing. On April 1, 2026, three bids were received as shown in the table below.

BIDDER	BASE BID	ADD ALTERNATE #1	ADD ALTERNATE #2
Electrorep Energy Products St. Louis, MO	\$130,785.81	\$9,184.76	\$14,325.26
American Power Systems, LLC Kent, WA	\$152,172.69	No Bid	\$8,397.46
PWR Storage Solutions LLC Dallas, TX	\$159,138.73	No Bid	\$4,280.00

The base bid includes the supply and installation of replacement batteries, battery accessories, and disposal of the existing batteries. Alternate #1 included the removal and disposal of the existing battery support racking, and installation of replacement battery racking. Alternate #2 included the supply and installation of battery spill containment systems, including containment beds, and absorption and neutralizing pillows.

After evaluating the bids, staff determined that the existing racking system was in good condition. Add Alternate #1 is therefore not recommended for award. Staff determined that the containment systems add an important layer of protection against battery electrolyte leaks or spills, and therefore, staff is recommending awarding Add Alternate #2. The low base bid, together with Add Alternate #2, from Electrorep Energy Products, of St. Louis, MO, is acceptable. The total award amount is \$145,111.07.

There is \$80,000 budgeted for this project. The \$65,111.07 shortfall will be covered from the Unit 8 Equipment Parts and Supplies account where there is savings available due to needing to purchase fewer spare parts than anticipated.

ALTERNATIVES:

1. Award a contract to Electrorep Energy Products, of St. Louis, MO, for Unit 8 Battery Replacement at the Power Plant, including the base bid and add alternate #2, in the amount of \$145,111.07 (inclusive of sales tax).
2. Award a contract to another bidder.
3. Do not approve the contract and delay the project.

CITY MANAGER'S RECOMMENDED ACTION:

The backup battery system is critical to safe and reliable power plant operation. Over time, batteries naturally degrade, resulting in reduced capacity, increased internal resistance, and a higher risk of failure under load. Because these failures are often not apparent during normal conditions, reliance on aged batteries introduces significant operational and safety risk, including the potential inability to maintain control during an emergency. Proactive replacement ensures the system will perform as required during critical events, maintaining system reliability, protecting equipment, and supporting overall plant safety. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.