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City Manager's Report
September 10, 2024 City Council Meeting
Prepared by: Melissa McConnell, City Engineer
Item #: 12.4

Subject: Consider approving a contract with A T.E.E.M. Electrical Engineering in the amount of \$25,825 for the Water Reclamation Facility Load Bank PLC Replacement Project (CIP #42507).

Recommendation: Adopt a resolution:

1. Approving a contract with A T.E.E.M. Electrical Engineering in an amount not to exceed \$25,825.00 for the Water Reclamation Facility Load Bank PLC Replacement Project (CIP #42507) and authorizing the City Manager to execute the same, and
2. Approving a \$30,000 budget appropriation from the Measure H Fund Operating Reserve for the said project; and
3. Finding that the project is exempt from CEQA pursuant to CEQA Guidelines Section 15301(d).

Purpose: This item proposes to approve a contract and budget appropriation for the Water Reclamation Facility load bank PLC replacement.

Strategic Plan Strategy: Strategy 4 – Update and Maintain City-Owned Infrastructure.

Background: The Water Reclamation Facility (WRF) dates back to 1962 and has undergone major upgrades in 1997 and 2009. During the 2009 upgrade, Caterpillar installed a new increased capacity generator. At that time, the existing Detroit Generator remained operational and powered the older portions of the treatment plant. In 2017 the Detroit Generator transfer switch failed which required that it be manually operated. Plant staff consulted with A T.E.E.M. Electrical Engineering and Carnahan Electric who recommended discontinuing use of the Detroit Generator altogether. On July 23, 2019, the Automatic Transfer Switch Replacement (CIP #41803) was completed by A T.E.E.M. Electrical Engineering and Carnahan Electric to access power from the power pole to Main Switch Board 3 and eliminate Switch Board 2 (now dedicated to solar field project). This now allows the new Caterpillar generator to power the entire treatment plant.

On July 22, 2023, the existing load bank controller failed during a power outage and was replaced with a LoadTec controller. On July 22, 2024, the PLC (programmable logic controller) and the Load-Tec controller have now both failed. Without control, there is no ensuring proper function of the power source before a power outage, and the City runs the risk of degradation of the life of the generator.

Discussion: Staff reviewed the proposed project improvements with A T.E.E.M. Electrical Engineering and requested a scope of work and fee for the replacement of this proprietary equipment. The final, negotiated scope of work from A T.E.E.M. includes:

- Hardware to the replace the existing Loadtec PLC
- PLC programming for a new PLC
- Replacement of control equipment within the Loadtec load bank, testing, and startup of the new equipment
- As-built drawings
- Integration into the existing SCADA system. No standalone HMI will be installed.

Staff is recommending the approval of a contract with A T.E.E.M. Electrical Engineering in an amount not to exceed \$25,825.00 for the Water Reclamation Facility Load Bank PLC Replacement Project (CIP #42507).

Options:

1. Approve recommendations of staff.
2. Direct staff to take other actions.

Environmental: The project was determined to be Categorically Exempt according to CEQA Guidelines Section 15301(d) because the project involves the restoration and repair of existing facilities and/or mechanical equipment.

Cost: The cost of the contract with A T.E.E.M. Electrical Engineering in an amount not to exceed \$25,825.00.

Budget Impact: This project was not included in the adopted Fiscal Year 2024/2025 Capital Improvement Program Budget. Staff is respectfully recommending a \$30,000 budget appropriation from the Measure H Fund Operating Reserve for the Water Reclamation Facility Load Bank PLC Replacement Project (CIP #42507) as shown below:

Description	Amount
Construction Contract	\$ 25,825
Inspection/Testing	4,175
Total	\$ 30,000

As you can see, the proposed \$25,825.00 contract with A T.E.E.M. Electrical Engineering, Inc. is within the proposed \$30,000 project budget.



M. Cleve Morris, City Manager



Melissa McConnell, City Engineer

Attachments:

Attachment A: Resolution