

ITEM #: 21
DATE: 01-27-26
DEPT: ELEC

COUNCIL ACTION FORM

SUBJECT: ELECTRIC DEPARTMENT AUTOMATED TEST BOARD PURCHASE

BACKGROUND:

This contract is for the purchase of an automated test board that will be utilized in the testing of Advanced Metering Infrastructure (AMI) meters. The Electric Meter division currently owns and operates two WECO test boards, a single-phase unit and a three-phase unit, both of which already operate on the WECO software. Adding a third WECO test board will upgrade testing capabilities and extend the useful life of the existing units by allowing all three to operate on the same updated software platform.

The new test board provides additional testing capabilities not available on the older units, including:

1. Ability to test and record results of the remote disconnect/reconnect feature of AMI meters.
2. High-harmonic load testing, which is increasingly important as more computer-driven devices include harmonic distortion into electrical service. The new test board can simulate real-world power quality conditions in a shop environment to ensure meter accuracy for both the utility and customers.

Standardization on WECO equipment ensures all three test units can be operated from a single control computer using one integrated software system. Purchasing a test board from a different manufacturer would require a separate control computer, separate software, additional training, and further integration costs - expenses that are avoided by selecting a unit compatible with the existing WECO equipment.

The new test board includes updated software that will allow the current control computer to be upgraded from Windows 7 to Windows 11. The City of Ames Information Technology (IT) division has identified the existing Windows 7 configuration as a security risk, and it is currently disconnected from the network. With the new software, one computer will be able to securely operate all three test units.

While all test units will continue to be used as long as they remain functional, the new test board will effectively replace the 17-year-old single-phase unit.

Because staff is requesting a waiver of the competitive bidding process, additional steps have been taken to assess the quoted price for reasonableness. Staff reviewed comparable products and found the quoted cost to be reasonable and consistent with similar equipment currently on the market. Alternatives such as the TESCO MTB-3050 and the Probewell MT3-GT were reviewed. However, the Radian Research Model 4050X was determined to be the superior and more cost-effective option due to compatibility with the existing WECO test units and shared software.

Funding for this purchase is available in the approved FY 2025/26 budget. The Electric Meter

budget currently has \$65,000 budgeted for the purchase of this equipment.

ALTERNATIVES:

1. Waive the City's Purchasing Policy requirements for competitive bids and award a contract to Radian Research Inc. of Lafayette, IN, for the purchase of an automated test board for Electric Services in the amount of \$57,977.65.
2. Do not approve and direct staff to solicit bids for this equipment.

CITY MANAGER'S RECOMMENDED ACTION:

Ensuring Electric Services can properly test AMI meters is essential. This upgrade will create a fully integrated system in which one computer can operate and control all three test units. The new software removes reliance on outdated systems that have been identified as a security risk, allowing the testing platform to migrate to a Windows 11 computer that can be securely maintained. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

ATTACHMENT(S):

[4050X_Brochure.pdf](#)