



Council Agenda Report

From: Christopher Alakel, Utilities Director

Subject: Purchase of Advanced Metering Infrastructure Equipment for AMI Project

CEQA Determination: The City finds that this action is not a project under the California Environmental Quality Act pursuant to State Guidelines Section State CEQA Guidelines, §§ 15060, subd. (c)(2)-(3), 15378.

Date: December 5, 2023

Facts

1. The City provides water and wastewater service for all homes, businesses, and institutions in the City. Potable water is delivered to the City's water customers through approximately 10,966 metered service connections.
2. The City's water and wastewater charges are based on actual water consumption. Therefore, the City relies on accurate and timely water meter reading information for billing and collection of approximately \$28 million in annual revenue.
3. The City currently uses a third-party vendor to manually read customer's water meters. Significant delays in meter reading have caused customer frustration and confusion regarding billings for water and sewer service, increased staff time to adjust billings and assist customers, and delayed collection of revenue Water and Wastewater fund revenues.
4. The City's Capital Improvement Program in the City's adopted budget includes a project to retrofit existing water meters to advanced metering infrastructure (AMI) beginning this year. AMI is an integrated system consisting of electronic meter registers, a communications network, and data management system that collects water consumption data without requiring manual reading by visiting each meter.
5. The Water Department has evaluated advanced metering alternatives that would allow for remote collection of meter readings and are compatible with the City's existing water meters.
6. The City has standardized water meters manufactured by Badger Meter Company (Badger) to improve the consistency and reliability. Badger offers AMI hardware that is directly compatible with approximately 96 percent of the City's water meters. Implementation of this AMI solution would simplify retrofits and reduce implementation costs.
7. The City began piloting the cellular AMI solution provided by Badger in February of 2023 and pilot meters have now been active for eight months.
8. On May 16, 2023, City Council authorized sole source procurement from Badger Meter Company for the Orion/ Beacon AMI system.
9. Utilities Department staff are preparing for implementation of AMI and the department is planning to bid for installation of AMI hardware in July of 2024.
10. AMI encoding registers, radio endpoints, and AMI-compatible lids (AMI equipment) needed for the project has long lead times for manufacturing and delivery (currently 120 days). To ensure that the AMI equipment is available to the installation Contractor that is selected according to the tentative project schedule, a purchase order with Badger meter for the AMI equipment will need to be issued

no later than December 31, 2023. Actual payment will for the AMI equipment would not be due until the equipment is delivered in June-July 2024, however purchase orders for the equipment are required to begin the ordering and manufacturing of the AMI equipment.

Options

1. Take no action;
2. Approve Resolution 23-XXX finding the activity is not a project subject to CEQA and authorizing the purchase of Advanced Metering Infrastructure (AMI) Equipment from Badger Meter Company for the AMI Project in the total estimated cost of \$3,143,521.00; or
3. Provide alternative direction to staff.

Analysis and Conclusions

The City has planned and budgeted for implementation of AMI to improve the consistency of meter reading, provide advanced warnings of leaks and other issues with customers' service, and allow a better understanding of water use throughout the City.

City staff have evaluated AMI alternatives including AMI hardware and meter box lids. In May 2023, City Council authorized sole source procurement of Badger AMI equipment and staff are preparing for bidding for the installation of AMI hardware on the City's approximately 10,966 meters. In May of 2023, the City Council also adopted engineering standards for AMI-compatible lids. In November of 2023, City Council authorized a Master Services Agreement with Badger Meter Company for the remote meter reading, data management, and software service that is needed for the City's AMI project. Staff are preparing to bid for installation of the AMI equipment in early 2024 and for the installation contractor to begin work in July of 2024.

The City is preparing to bid for installation of the AMI equipment in July of 2024. The City has investigated the option for the installation contractor to procure the AMI equipment as part of the construction contract, however, due to the long lead time for manufacturing and delivery of the AMI encoding registers, endpoints, and AMI compatible meter box lids (AMI equipment), which is currently approximately 120 days, this approach would significantly delay the project. The City has the option of issuing purchase orders to the equipment supplier, Badger Meter Company, to allow for delivery in time for the City's construction period in 2024. This will ensuring the needed AMI equipment is available to the Contractor in time for the planned construction period. Additionally, by authorizing purchase of the equipment in advance of construction, the City may also lessen variability in contractors' bids for the equipment installation.

If a purchase order is placed on December 31, 2023, based on the current lead time schedule, the first delivery of AMI equipment would be near the end of June 2024. Payment would be due to the supplier once the equipment is received by the City.

It is anticipated the city-wide installation Contractor would begin work in July 2024 and the duration of construction would take six to eight months to reach substantial completion. Quantities for these materials can be adjusted prior to shipment.

Staff recommends authorizing the purchase of the AMI registers, endpoints, and AMI compatible lids with a total estimated cost of \$3,143,521.00.

Fiscal Impact

Authorization of purchase orders with Badger Meter Company for the AMI encoding registers, radio endpoints, and AMI lids does not have immediate fiscal impact, however, would encumber funding for the purchase of these materials for the project. Payment for the AMI equipment will be due once the equipment is received, anticipated in June or July of 2024.

Total estimated costs for the AMI encoding registers, radio endpoints, and compatible AMI lids, including tax and shipping, based on the quantities of each item anticipated to be needed for the project and are as summarized below.

AMI encoding registers and radio endpoints	\$2,537,003.00
AMI-compatible lids	\$606,118.00
<hr/> Total	<hr/> \$3,143,521.00

The City’s Capital Improvement Program in the City’s adopted budget included budget for implementation of the AMI project, which includes the proposed \$3,143,521.00 cost for the AMI equipment purchase.

CEQA

The City finds that this action authorizing the purchase of AMI registers, radio endpoints, and AMI compatible lids from Badger Meter Company for the City’s AMI project is not a project under the California Environmental Quality Act pursuant to State Guidelines Section State CEQA Guidelines, §§ 15060, subd. (c)(2)-(3), 15378.

Recommendation (Option 2)

Approve Resolution 23-XXX, authorizing the purchase of AMI registers, radio endpoints, and AMI-compatible lids from Badger Meter Company for the City’s Advanced Metering Infrastructure Project and finding the action is not a project under CEQA because it can be seen with certainty the activity will not result in a physical change in the environment.

Attachments

1. Resolution 23-XXX – Authorize the Purchase of Advanced Metering Infrastructure Equipment for Advanced Metering Infrastructure Project of Master Services Agreement with Badger Meter Company for Beacon AMI Data Management System