



Council Agenda Report

From: Kirk Gonzalez, Utilities Engineering Manager

Subject: Approval of a Master Services Agreement for Advanced Metering Infrastructure Data Management System

CEQA Determination: The City finds that this action is exempt from review under the California Environmental Quality Act pursuant to State Guidelines Section State CEQA Guidelines, §§ 15301(b).

Date: November 7, 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 10,940 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 on water meters manufactured by Badger Meter Company (Badger) years ago to improve the consistency and reliability. Badger offers AMI hardware that is directly compatible with approximately 96% 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 is preparing for implementation of AMI and the department is planning to bid for installation of AMI hardware in July of 2024.
10. To support implementation of the AMI project, the City will need to enter into a services agreement with Badger Meter Company for use of the Badger Beacon data management software and service. A 15 agreement has been negotiated with Badger.

11. Following execution of the agreement with Badger, staff would authorize integration of the Beacon data management system with the City's existing customer billing system.

Options

1. Take no action;
2. Find the Project exempt from CEQA and authorize an agreement with Badger Meter Company for the Beacon AMI data management and software service;
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. Currently the City's approximately 10,940 active water meters are read each month by a contract meter reading service. Extensive delays in meter readings have occurred due to vendor staffing issues. Last year meter readings were significantly delayed for five consecutive months. These delays impacted water customers and required additional staff time to make adjustments to customers' water and sewer bills, provide meter re-reads, and assist customers with their questions and concerns over variations in billings. The consistency of the vendor's meter reading has improved, however, it remains unclear how future staffing and labor issues will affect billing. The vendor has indicated uncertainty regarding how long they will continue to provide manual meter reading.

AMI allows meter readings to be collected remotely without requiring manual readings at each meter site. Benefits include improved timeliness and consistency of meter reading, customer access to more detailed water use information, rapid leak detection and notifications that help avoid high water bills, notifications for meter tampering and backflow conditions, lower monthly reading cost, and reduced vehicle trips.

Staff has evaluated AMI alternatives that are compatible with the City's existing water meters and has identified an AMI solution from an established manufacturer, Badger Meter Company, that will reduce costs of implementing AMI and simplify the process of converting to AMI. The Orion cellular-based AMI solution provided by Badger is compatible with the large majority of water meters and can be installed without requiring removal and replacement of existing meter bodies, greatly reducing the labor and time involved with conversion. Additionally, Badger's cellular-based system does not require the City to construct, maintain and operate a fixed network of communication antennas to transmit data throughout the City, further reducing the complexity and cost of implementing AMI.

In May 2023, City Council has authorized sole source procurement of Badger AMI equipment and staff is preparing for bidding for the installation of AMI hardware on the City's approximately 10,940 meters. Staff has planned for bidding this work in early 2024 and for the contractor to begin work in July.

To begin the AMI conversion project in July of 2024, several steps will be completed. The following tasks and timing are planned based on coordination with Badger, meter box lid manufacturers, and AMI installation contractors:

<u>Project Task</u>	<u>Duration</u>	<u>Timing</u>
Master Services Agreement (CC approval)	n/a	Nov. 2023
Integration with utilities billing system	6 – 8 mo.	Nov. 2023 – Jun. 2024
Materials procurement (CC approval)	6 – 8 mo.	Nov. 2023 – Jul. 2024
CM Contract Award (CC approval)	n/a	Dec. 2023
Contractor prequalification	2 mo.	Dec. 2023 – Jan. 2024
Bidding for construction	2 mo.	Feb. 2024 – Apr. 2024
Construction (CC approval)	8 mo.	Jul. 2024 – Feb. 2025

The City needs to enter into an agreement with Badger for the data management software service and contract with Badger and the City's utilities billing provider, Harris Utilities Billing, to integrate the AMI data management system with the City's utilities billing system prior to full-scale AMI deployment. City staff and the City Attorney have negotiated a Master Services Agreement with Badger which outlines the terms and costs for the data management software service over a 15 term. The pricing for AMI meter reading and the data management service, is \$0.88 per meter per month, and would increase \$0.01 per year over the fifteen-year term to \$1.02 per meter per month for year 15. Currently, monthly meter reading costs are \$1.20 per meter per month and are in addition to an annual fee of \$8,861 per year.

Staff recommends authorizing the City Manager to enter into the attached Master Service Agreement with Badger Meter Company on behalf of the City. Following execution of the agreement with Badger, staff would authorize integration of the data management system with the City's utilities billing system. Integration and testing are expected to take approximately six to eight months.

Fiscal Impact

Authorization of the attached Master Services Agreement with Badger does not have immediate fiscal impact. However, implementation of the AMI system will involve payment of fees for set-up of the data management system (Beacon), integration with the City's utilities billing system, purchase of AMI equipment from Badger Meter Company, and payment of ongoing service fees for AMI remote meter reading and the data management software service. Anticipated costs for the conversion project are summarized below. AMI meter readings will start at \$0.88 per meter per month and increase \$0.01 each year for the fifteen-year agreement term (this will be offset by the current \$1.20 per meter per month fee the City incurs with manual meter readers).

<u>Project Task</u>	<u>Estimated Cost</u>
Master Services Agreement	n/a
Integration with utilities billing system	\$43,700
Contractor prequalification	n/a
Bidding for construction	n/a
Materials Procurement & Construction	\$6,000,000 budgeted
Construction management and inspection	TBD

The City Council approved the sole source procurement from Badger at the May 16, 2023 City Council meeting and the City's Capital Improvement Program in the City's approved budget includes budget for implementation of the AMI project. As such, no further council action is necessary

CEQA

The City finds this action is exempt from review under the California Environmental Quality Act pursuant to State Guidelines Section State CEQA Guidelines, §§ 15301(b), Existing Facilities, which exempts minor alterations to existing public utility facilities.

Recommendation (Option 2)

Approve Resolution 23-XXX, authorizing an agreement with Badger Meter Company for the Beacon AMI Data Management Software Service and authorizing the City Manager and City Attorney to make minor changes to the agreement, if needed, fully consistent with overall Council direction.

Attachments

1. Resolution 23-XXX – Approval of Master Services Agreement with Badger Meter Company for Beacon AMI Data Management System
2. Master Services Agreement for Beacon AMI Managed Solution