

CITY COUNCIL STUDY SESSION

Advanced Metering Infrastructure (AMI) Contract and Project Update

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DIRECTION NEEDED FROM COUNCIL**DIRECTION**

Utilities will be presenting information on the summary of negotiations for the draft vendor agreement for the AMI or smart water meter system. Staff plans on requesting direction from Council to approve the vendor contract at a future meeting.

RECOMMENDATION

N/A

BACKGROUND & ANALYSIS**Council Authorization**

On December 5, 2016, the City Council approved the Utilities proposed 2017-18 budget, which included \$23.089 million in capital funding for an AMI or “Smart Water Meter” system. Council approved the budget for the smart water meter system for the following reasons:

- Smart meters provide key customer-focused benefits, such as early leak detection, which will help our customers avoid the hardship of large water bills, and provide customers the ability to proactively monitor their usage to control their water bills;
- Smart metering technology supports the City’s overarching Bellevue Smart plan; and
- Smart meter technology is more cost effective than continuing with the current manual-read program.

AMI Vendor Procurement

In May 2017, Utilities issued a request-for-proposal (RFP) for a competitive process in search of vendor(s) that could provide, deploy and support AMI equipment and services. The process produced several qualified bids, and one prevailing vendor, Itron, Inc.

Itron is a 40-year-old, Washington-based firm, whose sole business is smart technologies for utilities. As a company that serves water, gas, and electric utilities, Itron’s market share in the water sector is 30 percent and it has deployed more than 20 million water meter communications devices worldwide. Itron’s technology can be found throughout the country, and particularly in Washington where the cities of Olympia and Spokane are Itron customers.

Under the proposed contract, Itron will deploy an AMI system that replaces existing meters with new meters that have more functionality and the ability to communicate wirelessly in a secure fashion over a

City-owned network. The system will process consumption data and other information for billing, conservation and operational purposes. The City-owned communications network will have the ability to support future non-metering devices across the City's service area, in case the City decides to leverage the network for other smart city functions. The proposed contract with Itron meets all of Utilities' requirements from the original RFP and will result in the following customer service and process improvements:

1. Shifts from manual (once every two months) to hourly automated meter reading;
2. Expedites leak detection and resolution;
3. Provides a web portal which promotes water conservation and customer self-service;
4. Resolves customer issues faster;
5. Allows on-demand remote reads for move-ins and move-outs;
6. Improves water system modeling;
7. Provides distribution system monitoring using zone metering and systems alarms; and
8. Potential to support for future smart city systems.

Utilities is negotiating a contract that will provide the City with a state-of-the-art AMI system and simultaneously offers long-term protections for the City and its rate-payers. Key contract provisions include:

- 20-year contract term;
- Safeguards against technology obsolescence;
- Best-in-class data security and privacy; and
- Industry standard equipment warranties.

Data Security and Privacy

Utilities recognizes that there are public concerns over the security and privacy of personal information and how that information is protected, shared, and used. The proposed vendor contract has stringent requirements to ensure that the privacy and security of the data is protected.

There will be no personally identifiable information stored on the AMI meter or transmitted wirelessly through the secured communications network. The proposed vendor contract requires that water usage information that is transmitted wirelessly be encrypted. Data collection devices are being provided by Cisco Systems, a global leader in communications technology and data security. Access to the communications network as well as the data carried in the network will have multiple best-in-class protections.

Personally identifiable information will continue to be stored in the Utilities' billing system, which will remain behind the City's firewalls. The proposed vendor contract requires that the new customer portal employ the same security measures as required by the City for personal information.

Contract Value

The proposed contract with Itron is for a total cost of \$21.2 million. The contract includes one-time capital costs of \$15.6 million to cover the cost of equipment purchase, installation services, and software configuration and integration. The contract also includes on-going operational costs of \$5.6 million, or approximately \$310,000 per year from 2021-2038. These operational costs include payments for the on-going software-as-a-service (SaaS) and network management costs.

Outreach

Utilities has developed and begun implementing a communications outreach plan to help prepare customers for the changes associated with transitioning to the new AMI system. To inform the development of the outreach plan, Utilities conducted baseline awareness research. This preliminary research showed that the majority of customers are supportive of the technology upgrade because of the associated benefits (billing accuracy, early leak detection, access to current consumption data, etc.). Customers' greatest concerns about the project included whether there would be significant service interruptions, additional out-of-pocket costs to fund the project, and data privacy and security. Utilities plans to address these concerns proactively through its customer outreach efforts.

Over the course of the two-year AMI implementation from 2019-20, Utilities has planned a significant customer outreach effort that is designed to:

- Notify customers that the technology upgrade is coming and what benefits they can expect;
- Inform customers about planned upgrade launch dates and when they can expect new meters;
- Be prepared to address questions and concerns that might arise (e.g., how the technology works, installation questions, data privacy/security); and
- Engage actively with the diverse communities where customers live and work.

Highlighted features and approaches of the communications plan include:

- Phasing the outreach so that communications to our customers occurs throughout the implementation lifecycle;
- Reaching customers using a range of methods such as print and electronic formats as well as in-person events;
- Developing videos and other material with translations for better accessibility for the diverse population (e.g., traditional Chinese, Korean, Spanish, Vietnamese);
- Creating and updating FAQs and related material to address common questions or concerns; and
- Scheduling time with community-based organizations to provide briefings or demonstrations.

Staff has already begun outreach activities. Announcement of the project has appeared in the Water Quality report and billing inserts. There is a project-specific webpage on the bellevuewa.gov website that includes FAQs. At the April 2018 Neighborhoods Conference, staff provided an overview of the technology and project plans to registrants.

Next Steps

Pending Council review and approval of the contract, Utilities plans to begin work with the vendor in 2019. Initial tasks will include implementation planning, software configuration and testing, and identification of a pilot deployment area. Pilot deployment will occur during Spring and Summer 2019. Full-scale deployment of smart meters will begin in Fall 2019, and the project implementation should be complete by the end of 2020.

POLICY & FISCAL IMPACTS

The 2018-19 Council approved budget for the Utilities Department included \$23.089 million in capital funding for the AMI system. One-time capital costs to the vendor and staff implementation of the project are estimated at \$19.5 million, well within the Council's approved funding level. Vendor costs for future on-going operations and maintenance of the AMI system will begin in 2021 and have been negotiated at an annual cost of approximately \$310,000. On-going costs for the AMI system will be included in Utilities' 2021-22 operating budget proposal.

OPTIONS

N/A

ATTACHMENTS & AVAILABLE DOCUMENTS

N/A

AVAILABLE IN COUNCIL LIBRARY

N/A