



Legislation Text

File #: 2022-0284, **Version:** 0

Title/Name/Summary
RFP 22-016 Meter Replacement Program Evaluation-bid

History

Since 1996, Public Works has received Board approval to purchase Sensus water meters from Sensus Technologies, Inc. of Uniontown, Pennsylvania to continually update the Village's residential and commercial water meters for replacement and new construction and removal of Badger meters. In 2004, the Meter Change out Program was reviewed and Sensus was approved by the Board to continue to supply meters to the Village.

Meter reading technology has changed over the years. Instead of visual reading, meter reading changed to a radio read format utilizing an MXU transmitter installed with each meter. Initially using handheld devices, meter reads were collected by walking near each metered property. As technology advanced and provided for improved meter reading efficiency, a vehicle mounted unit, a VXU, was purchased in 2002 to allow for drive-by meter reading. Between 2002 and 2012, the MXU transmitters with battery power reached their end of life span.

In 2012, taking advantage of improved technology, new Smart Point transmitters were started to be installed. SmartPoint transmitters come with a full twenty-year warranty, including the battery. The SmartPoint transmitters are capable of storing hourly reads for seven to ten days, as well as detecting continuous flow over a specified period of time and potentially identifying leak situations.

In 2014, a fixed network meter reading system called FlexNet™ was installed which allows for the reading of all SmartPoint enabled meters via computer using antennas installed on three water towers. The SmartPoint transmitters coupled with the FlexNet™ System can now read meters, eliminating the need to drive each route each billing period. The FlexNet™ technology provides two-way communication between the Village and individual meters, providing staff in Public Works and Finance the ability to read and monitor individual meters without having to drive to the meter site, as individual meter reads can be obtained by directly and remotely polling a meter.

In 2015, meter reading technology also changed with the introduction of the lower cost iPerl meter with composite flow tube construction, fully electronic and non-mechanical meter. The iPerl meter, with no moving parts, uses magmeter (electromagnetic) flow metering technology to measure the flow of water. The measuring capability is as low as .03 gallons per minute (gpm) up to 55 gpm. While malfunctions can occur in any meter reading system, several self-diagnostic alarm capabilities are included that are not available in mechanical meters. These include; battery alarm, EMF failure and predictive battery life alarm. In addition to the self-diagnostic features, several other capabilities include empty pipe, low and very low battery, low battery voltage, leak detected, reverse flow, magnetic tamper, and high temperature, along with various other self-diagnostic alarms.

When used in conjunction with the FlexNet™ meter reading network and SmartPoint transmitters,

the opportunity for a robust customer portal becomes available. Customers will be able to directly access their consumption and billing information and receive alerts via multiple communication methods including email, text and phone. Customers could set their own thresholds regarding the amount of money or water they don't want to surpass during a billing period, and be notified directly about potential leaks in their system. Unfortunately, this has not been available for the Village until Innoprise can be replaced with Tyler product.

The Village also saw a reduced cost in pricing and improved warranty with the iPerl meters. Pricing in 2015 for iPerl was \$105.00 for the ¾", \$159.00 for the 1" with a twenty (20) year warranty versus old meters of \$148.00 for the ¾" SRII and \$195.00 for the 1" SRII with a ten year warranty. In 2020, iPerl pricing was \$116.00 for the ¾" meter, and \$172.00 for the 1" meter, or 10% and 8% increase after five years.

Since 2018, the Village completed large and small water meter testing programs due to age of meters. Industry standards is to bench test meters especially over fifteen (15) years old to test system reliability and look for under-registering during low water flow. From the data from these tests, it was evident that the Village would need to initiate another round of meter conversion program starting in 2020 and span the next eight to ten (8-10) years starting with the oldest meters in the system.

The Village has over 23,000 meters and smartpoint conversions. Utilizing in house staff, seven to fourteen (7-14) meters per day have been replaced with the new Sensus iPerl. To date, over 2,800 have been installed and working well. The local authorized vendor for Sensus products in our region is Core & Main of Mokena, Illinois

In 2021, the Village decided to implement a new Enterprise Resource Planning program called Tyler that will have a new utility billing software system. In order to have a standard reading and billing figures as well as the capabilities to have monthly billing and customer portal, the Village has decided to replace all the meters versus the previous plan of eight to ten (8-10) year plan. While the Village has invested and put in place advanced metering infrastructure of smartpoint and FlexNet™ and being upgraded to a cloud based system, the Village decided to evaluate the existing system, receive recommendations for changes/upgrades, and request assistance in preparation for bid and oversight of installation of meters.

On February 22, 2022, Finance published RFP 22-016 Meter Replacement Program Evaluation on BidNet Direct from February 22nd 2022, to March 7th, 2022. Three (3) vendors were sent courtesy email notifications, fifteen (15) vendors viewed the documents, seven (7) fully downloaded them, and three (3) bids were received. The proposal pricing totals were as follows:

Baxter & Woodman Inc. of Crystal Lake, Illinois - \$130,930.00

Arcadis U.S. Inc. of Chicago, Illinois - \$447,226.00

Veregy of Oakbrook Terrace, Illinois - Alternative Pricing of Energy Performance Contract that guarantee savings and revenue sharing model

Arcadis also provided two (2) alternative pricing of: Alternative 1 - Turn-Key Implementation Project - Reduces the fees associated with Tasks 2.1 and 2.2 by \$26,000. Alternative 2 - Optional Field Inspections during the Implementation would range between \$60,000 and \$110,000.

On March 21st, 2022, Arcadis and Veregy presented to the selection committee, and on March 25th, 2022, Baxter & Woodman presented to the selection committee consisting of Finance and Public Works members. The bid proposers presented their approach to scope of work, staff experience to include local work, cost justification/pricing model, schedule, and capabilities of quality control, procurement development, installation oversight and public outreach. The selection committee considered these qualifications and skill capabilities along with bid price and rated Baxter & Woodman as technically accepted and best price.

This agenda item is being considered by the Committee of the Whole and the Village Board of Trustees on the same night.

Financial Impact

\$425,000 was budgeted for this project in 031-1400-432800 (Water & Sewer Fund, Finance - Consulting Services). In order to cover the cost of Silver Lake West project, we will be amending the budget of this item by \$280,977, for a total budget amount of \$144,023 to cover the base fee, plus contingency.

Recommended Action/Motion

I move to approve awarding RFP 22-016 Meter Replacement Consultant to Baxter & Woodman Inc. of Crystal Lake, Illinois in a not-to-exceed amount of \$130,930.00;

AND

Authorize the Village Manager to execute all related contracts, subject to Village Attorney review.