

MEMORANDUM

To: Village Manager Cara Pavlicek
From: Deputy Director of Public Works Matt Morrison
Date: 2024-10-08
Subject: A Discussion and Update on the Automated Metering Project

Overview

A Village staff committee referred to as the Automated Metering Project Team has been diligently working towards final recommendations to support the implementation of an automated metering project and will present recommendations.

Fiscal Impact

The anticipated cost of the proposed solution is \$10,677,159 based on the cost information provided by Veregy, Inc. through the audit authorized by Resolution 2024-19. This cost includes:

- \$3,627,429 for the purchase of water meters;
- \$1,326,985 for the purchase of radio endpoints and software for remote reading of meters as well as a customer portal; and
- \$5,284,376 for project management and installation services.

Also included in the estimated project cost is a contingency of \$438,369 to cover the cost of miscellaneous work such as repair to valves inside a home and other incidental work.

The cost of this project is more than initially budgeted for and staff will cover the reasons for this higher cost which are attributed to:

- The cost of the physical meters which has been increasing due to labor and raw materials;
- A higher volume of larger meters in residential properties; and
- A change in the recommended project delivery method that will fully use a consultant for project management services and contractual installation of meters.

Funding will be provided in the Water Fund, an Enterprise Fund supported by water fees. It is expected that the upfront costs will be paid with a general obligation bond backed by Water Fund revenues.

Recommendation

A Village staff committee referred to as the Automated Metering Project Team will present its recommendations and seek feedback in advance of the Regular Board Meeting where staff is seeking authority to negotiate and prepare contracts for the Automated Water Meter Project which is last step before project implementation.

Background

The Village of Northbrook has identified the replacement of water meters and implementation of an automated meter system as a key priority to improve customer service for residents and businesses as well as further sustainability for the organization and community. This is a best practice in municipal service delivery. The project, which was identified and included in the Utility Rate Study, has the following goals:

- Improve customer service by implementing a remotely read system that will allow customers more ready access to their usage information;
- With that increased access to usage information, residents and businesses will be able to identify when they have a leak in their home or alter their usage to be more sustainable;
- To reduce the amount of unreported water usage the Village must report on as part of its water allocation.

A Village staff committee referred to as the Automated Metering Project Team and consisting of representatives of the Village Manager's Office, Finance Department, Information Technology Department, and Public Works Department has worked diligently on this project and with the Village's consultant Veregy, Inc. to prepare a recommendation for the Village Board's consideration. The Automated Metering Project Team recommends the following components of the project:

- Neptune Mach 10 water meters which will be purchased directly from their local regional distributor Water Resources, Inc. The Village has been utilizing Neptune Mach 10 meters for approximately four years now and had great success. The meters contain no moving parts and are guaranteed accurate for 20 years. Additionally, those Mach 10 meters already installed in the system can be retrofitted with the radio endpoint and do not need to be replaced.
- Itron endpoints that will communicate the readings over the ComEd network. With this, the Village will utilize the Itron Temetra software to take in water meter readings four times daily and communicate that to the BS&A as well as the customer portal.
- The ComEd network to communicate the water meter readings. Doing so will take advantage of a mesh network already in place and eliminate the need for the Village to own and maintain a radio network for the collection of meter reading data. Additionally, as the water meters will communicate either through the ComEd radio network or through the electric meters, the Village will have the ability to install the endpoints in the home and not require the Village's contractor to drill through the exterior walls of a home and place an endpoint on the exterior of the building.

- The VXsmart customer portal from VertexOne. The VXsmart customer portal includes not only the alerting functionality when usage indicates there is a leak at a property, the system also has the ability to help customers diagnose reasons for higher usage and/or repair a leak. This system comes with an additional cost of approximately \$26,100 annually, however the additional functionality meets the expectations of the Village.
- Veregy Inc., serve as project manager and installer for the Automated Meter Reading Project. Veregy, Inc. will provide project management and meter installation services through subcontractor PMI. Veregy, Inc. has completed similar projects for communities such as the Villages of Buffalo Grove and Glenview. Veregy, Inc. will coordinate not only the scheduling of meter replacements but also the communications with customers on the project while also coordinating communication materials with Village staff. Utilizing Veregy, Inc. will help expedite the completion of this project in accordance with the goals

The Automated Metering Project Team recommendation memo to the Village Manager is included as supplemental information for the Village Board. Staff will provide a presentation on the AMPT's recommendation at the October 8, 2024 Committee of the Whole meeting.

As part of the October 8, 2024 Regular Meeting of the Village Board, a Resolution has been prepared for consideration Directing Staff to Negotiate and Prepare Contracts for the Automated Water Meter Project.

[Supplemental Information - AMI Project Recommendation to VM Memo.pdf](#)
[Supplemental Information - AMI Recommendation Presentation](#)
[Supplemental Information - AMI Project Summary Information.pdf](#)