

## PRODUCTS IN ACTION

By Dan Dannenmueller

# The Right Selection Process

West View Water Authority establishes a best practice benchmark for an AMI selection process

*Solid planning, patience and discipline are key ingredients that yield superior results. In the water utility industry, those same attributes applied to the selection of a new advanced metering infrastructure (AMI) are sure to produce a system that is a perfect fit for not only the utility, but also its customers.*

### ARTICLE SUMMARY

**Challenge:** Pittsburgh's West View Water Authority needed an AMI system that addressed its unique needs while improving customer service.

**Solution:** The authority carried out an extremely thorough search process and comprehensive staff training.

**Conclusion:** The authority's selection process resulted in an AMI system that improves efficiency and enhances customer service.

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The selection process used by the West View Water Authority (WVWA) in Pittsburgh, Pa., can be a best practices option for other utilities to follow. The authority has a service area of 31 municipalities in western Pennsylvania, including portions of the city of Pittsburgh. West View's territory covers 100 sq miles and encompasses nearly 54,000 end points of both residential and commercial customers. WVWA consists of both urban and suburban environments, which include hilly terrains that pose geographical meter reading challenges.

WVWA wanted to be sure that its new AMI system was the best available, one that would deliver now and decades into the future. But it had to select a system while steering through everyday challenges of rising operating costs such as health care and wages, vehicle maintenance and fuel, employee safety, servicing hard-to-reach areas and the elimination of estimated billing. It had a breadth of issues to consider from their base of residential and commercial customers and the difficult terrain.

Patience contributed to the project's success. The authority waited to select a system until there was a solution that not only addressed meter reading efficiency, but also enhanced customer service. Drive-by systems addressed the efficiency angle, but once the AMI fixed network emerged as providing solid benefits in both areas, the authority was convinced it was time to take meter reading information to the next level and create a comprehensive data collection system.

### Detailed Due Diligence

Before starting the process of selecting an AMI provider, a detailed program of due diligence was planned and implemented, grounded in an objective "leave-no-stone-unturned" strategy. WVWA's wish list was like most others looking to AMI for solutions: increased customer service, minimal infrastructure requirements and lower life-cycle cost—in essence, the lowest-risk solution.

Sensus' FlexNet was selected for the job, one of the defining factors being its ability to meet all of the bidding document's parameters and to emerge as the best solution after the comprehensive analysis. The bottom line was that Sensus would present the most cost-effective and long-term solution.

FlexNet is a radio frequency, fixed-network utility data collection system. It offers fixed-based

monitoring for both urban and rural areas that produces hourly reads among a host of other features.

FlexNet caught WVWA's attention when its system required a smaller infrastructure than other options, while having the lowest lifecycle cost. Coupling those lower costs with the addition of hourly reads, which will enhance customer service, it became obvious that FlexNet was the best solution for the authority.

During the selection process, they monitored how much each bidder's system would cost for ongoing maintenance, and FlexNet again emerged as a leader. WVWA's new system is expected to be up and running for more than two decades, but they needed to know at the outset what their ongoing costs would be to support the system they chose. They determined that FlexNet provided the most economical life cycle cost for the project.

Once FlexNet was selected, Sensus tested the signal strength from virtually every point in the vast territory. WVWA's coverage territory is one of the most challenging areas for a fixed-base system, and it was gratifying to see FlexNet prove itself over the entire area.

WVWA needed just eight FlexNet collection points to be installed to cover the majority of their 100-sq-mile territory, compared to a range of 100 to 300 collection points needed from other bidders. And, all eight units were able to be installed on existing WVWA-owned water towers.

Because the FlexNet system captures hourly reads, the authority can now abandon quarterly residential and monthly commercial reads. The enhanced system will collect actual usage rates, and also will save customers unnecessary costs by detecting leaks or problems in the field almost immediately.

FlexNet also produced the lowest-risk solution for WVWA based on its exclusive use of a primary-use license frequency. Protected by the Federal Communications Commission, the license provides up to twice the power of competing systems on a frequency band that is legally off-limits to any other transmitter. This uncluttered path clears the way for accurate, reliable transmissions, a factor not overlooked by WVWA officials.

It is FlexNet's ability to provide higher-power transmitters that can communicate over more distances that allowed for the limited number of collectors, which accounted for WVWA's drastic

◀ Sensus collectors and communication system mounted on an existing utility water tower.



◀ Utilizing GPS technology, this Google Earth image illustrates some of the 7,000 SmartPoints in contact with one of West View's Tower Gateway Base stations (TGB). West View utilizes eight TGBs to cover 110 sq miles and 54,000 customers.

"Participation and collaboration among the entire staff was imperative," Bruno added.

A training program for billing clerks, the information technology staff and field technicians took place. And staff was assured that no job cuts would come as a result of the new technology.

If not for the win-win scenario that WVWA was able to capture—acquiring a data collection system that allows more efficient utility operations while yet providing a superior level of customer service—the move to AMI would not have happened.

Of Bankson's 100-plus clients, Kerchner says the WVWA bidding document stands out as one of the best planning processes he has witnessed. "Doing all of that work up front is beneficial. I encourage other authorities looking to go to AMI to get acquainted with the technology available, how it will be implemented and how it will perform over the life of the system. Sometimes we thought all of our research and planning was overkill, but in hindsight, every minute was very well spent." **WWD**

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difference in infrastructure needs.

Sharon Bruno has been with the WVWA for more than 30 years, and is director of administration. For her, FlexNet's features boil down to one result: enhanced customer service. Bruno views the move to AMI as a win-win situation for the authority and their customers.

"We are striving for total accuracy to cut down on

any issues that arise, and so that we are able to help customers quickly," Bruno said.

In charge of WVWA's staff, Bruno made sure authority employees were educated about the move to AMI prior to start of the selection process. She said that achieving the support of the staff was critical to ensuring the short- and long-term success of the project.

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