

CITY OF EVANSTON

EVANSTON, ILLINOIS



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— Kevin Lookis, Water Production Superintendent, City of Evanston



Vicki Biner, Meter Service Coordinator, and Kevin Lookis, Water Production Superintendent

The New Way is Two-Way – Implementing a Revolutionary R450™ System with Neptune

Getting a New Fix on AMI

Located on Lake Michigan 12 miles north of downtown Chicago, Evanston was named in 1857 for one of the founders of renowned Northwestern University, which predated its surrounding municipality by a couple of years. "Dry" from its inception and the headquarters of the Woman's Christian Temperance Union since 1874, Evanston did not legalize sales of alcoholic beverages in restaurants until 1972. Yet in another sense, the city has been "wet" quite a while – having supplied water services to residents beginning in 1874 and filtered water since 1913.

Today, the City of Evanston comprises a total of 14,400 metered water services and a population of nearly 75,000 people within a 7.2 square-mile area. Of those services, 10,600 are single-family connections; 2,600 are multi-family; 1,000 are commercial; and the remaining 200 or so are split among light industry, parks, and schools.

In keeping with the community's progressive outlook, the City of Evanston Utilities Department was an early adopter of fixed network meter reading technology at the turn of the millennium. According to Water Production Superintendent Kevin Lookis, the Department installed a Neptune competitor's one-way fixed network system not so much to save money or add revenue – at the time, the gas company collected the water reads – but primarily for improved customer service and to find leaks more quickly. With the system, Evanston "could see when leaks started and get good, accurate reads in the office daily," said Lookis. However, after 11 or 12 years, the meter (radio) transmission units' batteries began to fail in large numbers. The batteries were not field-replaceable, so Evanston would need to replace the entire meter transmission unit.

Above and Beyond with Neptune R450 AMI

"We had to make a decision," said Lookis. The Utilities Department AMI team agreed early on to implement two-way communications

using advanced metering infrastructure (AMI) technology. After sending out a Request for Proposals in the spring of 2013, Evanston made the decision in April to switch to Neptune with its R450™ System. The opportunity to work with longtime partner and Neptune Level One Distributor, Water Resources, was a deciding factor, as was the R450™ RF MIU's longer-than-10-year lifespan and field-replaceable battery.

In late June 2013, the City began the changeout of the entire system to Neptune's R450 System, working with Mike Pedone at Water Resources as well as Neptune District Manager Craig Adams. "As part of the implementation, the service area has been divided into three sections," said Meter Service Coordinator Vicki Biner. "After we complete 90 percent, we begin the next section. We're installing the R450 MIUs at a record pace. Right now we have six R450™ Data Collectors in place, and the reads are coming in well." In only 11 days, 600-700 R450 MIUs had been installed. The full changeout is expected to be complete by June 2014.

Biner also mentioned the importance of Anthony Gattuso, General Manager and Level One System Software Implementer at Water Resources, to the implementation effort: "Anthony's been on track the whole time, from the software to the R450 Data Collector infrastructure to the IT integration. There's been really great communication with him and Neptune. We're looking forward to an interface with our billing software in the next few months."

Another aspect of the overall AMI project includes replacing approximately 1,500 meters and encoders. This has provided Evanston the opportunity to begin phasing in Neptune's 8-digit, high-resolution E-Coder solid state absolute encoder – which will help ensure the kind of detailed consumption data that the R450 System can leverage beyond basic meter reading. "It gives us flexibility we didn't have before," said Lookis.

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The Hour of the Customer Has Arrived

The demand for the kind of data collection, analysis, and customer information the R450 System provides keeps growing, said Biner. "A lot of our customers are very computer-savvy. They want to be able to check their usage online. We wanted a customer portal so they could look at their water consumption history and their daily read." To this end, the City has not only put into place N_SIGHT™ R450™ host software but N_SIGHT™ IQ™ Intelligent Data and Analytics as well.

Lookis added, "Evanston is a very 'green' city. Even though we have an abundant water source, we have many customers who want to know more of what they can do to conserve water. With our new system, we can

automatically read hourly while getting consumption on a daily or hourly basis, helping people find leaks or excessive consumption. We hope that this will cut down the number of service calls." That same type of consumption data tracked for residential consumers will also prove valuable with Evanston's hospital and university accounts. "The idea is that our customers will take it upon themselves to monitor their usage, and then they won't need us for that anymore...that would be great. People need to take ownership of their water consumption, and we want to help. The use of the new system will also allow more residents to help us meet the goals of our Water Conservation and Efficiency Plan adopted by the City Council last year."

Although it is too early in the implementation for the City to have specific results from its R450 System regarding Non-Revenue Water, customer consumption, and the like, Lookis is looking forward to the difference it will make. "We're excited about it. It's leaps and bounds above what we've ever had before."

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