

Smart Water Data, Delivered

Columbia, SC | *Deployed on a 4G Wireless Network with Advanced Metering Infrastructure*

SCENARIO

The City of Columbia and Columbia Water—driven by the core values of accountability, transparency, and integrity—were looking for a way to enhance the customer service experience for 400,000 water and wastewater customers.

SOLUTION

Columbia Water partnered with Badger Meter to replace touch-read meters with a cellular AMI solution across its entire 320 square mile service area.

These Recordall® Disc Series and E-Series® Ultrasonic meters, coupled with ORION® Cellular LTE-M endpoints, deliver data at 15-minute intervals to a BEACON® Advanced Metering Analytics (AMA) solution. Customized dashboards deliver system-wide information to desktops and devices. Alerts proactively monitor exceptions, and automatic software updates maintain accuracy.

Through the EyeOnWater® mobile app, consumers can monitor their water usage patterns and set consumption and leak alerts. Data from across the system, from digital water meters to utility billing centers, helps improve meter-reading efficiency and billing accuracy.

The solution leverages existing cellular networks throughout, which eliminates the city needing to maintain its own communications infrastructure. The system is easy to upgrade and expand as service demands change. Delivery over cellular networks helps ensure that water systems remain online, safe, and secure.

“The Badger Meter technology allowed us to deliver an AMI solution quickly and responsively, as well as cost-effectively.”

– Carmen Flemming, senior program analyst,
program management office, Columbia Water



RESULTS

With upgrades to over 150,000 services, the changeout project is the largest deployment of cellular AMI at a North American water utility to date. It's also a powerful example of how smart water technologies give utilities access to more information for decision-making and infrastructure management. Improved meter-reading accuracy, for example, has given Columbia Water the ability to:

- + Eliminate estimated bills
- + Reduce truck rolls for meter reading re-checks by 96%
- + Reduce customer complaints regarding water bills
- + Reduce inactive water-consuming accounts by 21%

What's next? According to the solution team, smart water systems shouldn't just address current challenges. The right solution should help a city or utility meet future goals and objectives, too. Today's smart water systems enable utilities to upgrade and expand as they grow and integrate their efforts with other smart systems for efficient city management.

WHY CELLULAR FOR MISSION-CRITICAL COMMUNICATIONS?

As severe weather and natural disasters become increasingly frequent, municipalities are pressed to make their water systems more resilient. The cellular networks millions of people rely on for daily communication offer a powerful solution. These networks are managed, monitored, and maintained to 99.999% uptime to keep individuals connected, even in an emergency. In fact, cellular networks are among the first services restored after a big storm or natural disaster.