

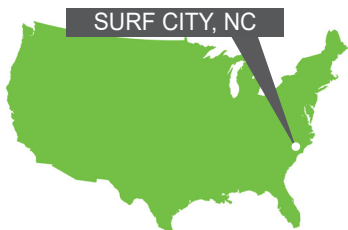


USG WATER
— SOLUTIONS —



©Ken Blevins Star News

Reducing non-revenue water loss from 30% to 6% with an AMI system in Surf City, NC



Project Summary

Customer:

Town of Surf City, NC

Type of Project

AMI RF System and Water Meter
Turnkey Installation

15 Year Asset Management Program

System Details:

AMI System: Aclara RF

Water Meters: Diehl Hydrus and
Honeywell evoQ4

Number of Connections: 4700

Results:

- Increased revenue
- Reduced non-revenue water
- Management of resources
- Greater customer focus

The Town of Surf City, North Carolina, is located on Topsail Island, a barrier island situated south of the Outer Banks. Its clean and uncrowded beaches, family friendly atmosphere, and services make it not only a wonderful place to live, but also a popular destination for vacationers, particularly during the summer months.

According to David Price, Director of Public Utilities for Surf City, which handles water and sewage treatment, “I’ve heard it said that Surf City is a small community. While the census shows our population to be right around 4,000, our EPA calculations show it closer to 10,000 full-time residents. And in the summer, the population booms up to 40,000. We have 4,700 connections in our water system, and a lot of them are rental houses,” he noted.

When it comes to the Town’s water system, that variability in population poses challenges in accounting for water usage. “Water accountability is extremely important, and because of that, we need to make sure that we count every gallon going out,” he added. The Town’s new Advanced Metering Infrastructure (AMI) program with Smart Meters and Asset Management is a huge step forward towards achieving that goal.

The move to AMI

Around 2006, the Town modernized its system by installing new meters and transitioning from manual meter reading to Automated Meter Reading (AMR). However, around 2020, the Town was having issues with the accuracy of those meters. “We were experiencing a water loss of about 30%,” said Price. As the

“Water accountability is extremely important, and because of that, we need to make sure that we count every gallon going out.”

— David Price, Director of Public Utilities, Town of Surf City

“Our non-revenue water loss was at 30% before we switched to AMI, and it is now down to 6%.”

— David Price, Director of Public Utilities, Town of Surf City

Town looked at replacing its meters, it also looked at implementing Advanced Metering Infrastructure (AMI) to futureproof its system.

After the RFQ for AMI, the Town chose USG Water Solutions (USG), which had managed the maintenance of its water tanks. USG's proposal covered not only AMI and smart metering technology, but also included an asset management program in which it assumes responsibility for proactively maintaining and updating the network, including the meters and software.

Asset management was an important differentiator. “People think that you get a system and it’s going to function perfectly from day one until the end of its life, but that’s not how it works. A prime example is our AMR system. We were optimistic for that, but toward the end, we were spending just as much time hour for hour as we had been with the manual meter reading, either reading meters or troubleshooting the transmitters that weren’t working.

USG’s maintenance program includes a 15-year warranty and removes the worry. That’s huge because as long as we keep things the way they are, we don’t have to worry about these issues. And with the way our contract is structured, the debt service is going to be paid off in 10 years,” Price commented.

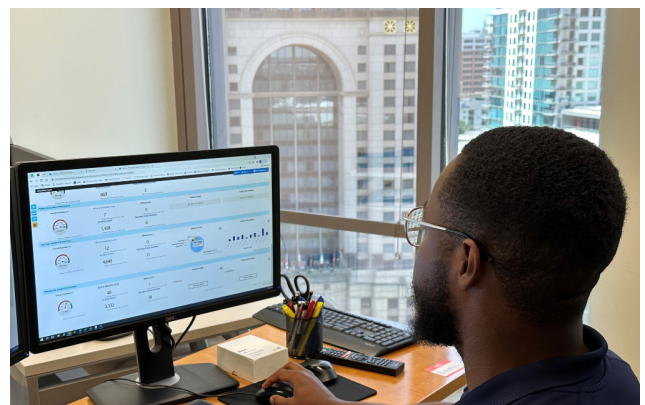
USG’s Smart Metering (AMI) and Asset Management Program

Traditionally, implementing smart metering infrastructure required significant support maintenance, technology and software expertise as well as funding to cover the up-front installation costs of the AMI and smart meters. However, this put AMI out of reach for many small and mid-sized communities. As a result, USG designed and offers a customized Metering Asset Management Program that includes all the following services for a set annual cost, simplifying budgeting and making AMI an affordable option:

- Installation of the AMI system and smart meters.
- Integration of the host AMI solution software with the utility’s billing system.
- System management including daily analysis of metering

data to guarantee system performance.

- Long-term maintenance that can include a 15-year warranty and proactive, ongoing and preventative corrective maintenance of the AMI network and equipment.





Benefits

The Town is already realizing numerous benefits from the AMI system in terms of:

- **Increased revenue.** “People don’t look at revenue as a benefit to the rate payer, but it is. Our non-revenue water loss was at 30% before we switched to AMI, and it is now down to 6%. Recapturing that works in creating equity, too, because instead of everybody paying a fee, that cost is actually going to parties that are using the most water – usually the businesses and rental houses that are making a profit from the area. I believe the word equitable applies because people who are using the most water are now paying the highest bill. And that has prevented a rate increase for the general public who may not be able to afford it,” says Price.

- **Management of Resources.** “The AMI system probably saved us from having to hire another person, because where staff was spending 100 man-hours or so a month reading meters or fixing a system, they no longer have to do that. Instead, they are performing other tasks in line with their responsibilities. Also, AMI is helping us cope with the huge population boom in the summertime. It’s hard to keep trained individuals year-round because you don’t need the same number of people throughout the year. The power of advanced metering technology helps us meet that need,” he added.

- **Greater Customer Focus.** “Looking back, the advantages of AMR were really more for the municipality. It didn’t really benefit the end-user, the customers, because it didn’t have all the capabilities that you have now with AMI,” says Scotty Wilkins, Water Systems Consultant, USG Water Solutions. Not only does AMI enable the Town of Surf City to bill customers accurately for their water use; it also helps to encourage conservation and/or rectify problems by quickly identifying anomalies in usage that are often due to leaks that customers may not be aware of.

“I’d strongly recommend a program that includes asset management, like this one. Looking at the price of the contract, it was worth it to us to say, okay, every year USG takes care of this for us. It also made sense fiscally. We do our own revenue projections and could attribute \$500,000 a year of increased revenue just from the system, which more than pays for the debt service and the maintenance contract. Credit goes to our Manager and members of the Surf City Town Council for their foresight and support to take on a project of this magnitude,” said Price.



“We do our own revenue projections and could attribute \$500,000 a year of increased revenue just from the system, which more than pays for the debt service and the maintenance contract.”

— David Price, Director of Public Utilities
Town of Surf City

Contact Us Today!
855-526-4413
usgwater.com



USG WATER
— SOLUTIONS —