

CASE STUDY

ORION®

Radio Frequency System



Badger Meter's ORION® Radio Frequency System

Tennessee Utility Uses ORION® Data Logging To Monitor Water Usage And Resolve Billing Disputes

By: Dave Marsh

Rutherford County, Tennessee is one of the fastest growing areas in the United States and the US Census indicates its population increased by almost 70% between 1990 and 2004. Consolidated Utility District (CUD) provides drinking water to a large portion of Rutherford County and recognized that it had to implement some major changes to better serve its exploding customer base. One significant step forward into the 21st century is upgrading its old manually read meters to a state-of-the-art automatic meter reading (AMR) system.

“In the past five years CUD has added over 10,000 new customers and is currently growing at over 3,000 meters a year,” said Bill Dunnill, Assistant General Manager. “It’s clear to every forward-thinking, fast growing utility that AMR is the only real long-term solution to accommodate the increasing demand.”

Dunnill said that he and Meter Reading Supervisor Kevin Hickerson advertised a Request for Proposals in late 2004 and evaluated the responding AMR manufacturers on a number of criteria including technology, product reliability, and the stability of the manufacturer. They considered a number of manufacturers with various capabilities and presented their findings to both CUD staff and Board of Commissioners before selecting the Badger® ORION solution.

CUD adopted the ORION Data Profile Transmitter to help it improve customer service and better resolve customer billing issues. “Data profiling is something we want to eventually install on every customer meter,” said Dunnill. “Consumers often question high bills and swear they never use that much water. It is hard for them to understand that the water meter is a mechanical device that cannot move unless there is actually water flowing through it. With data profiling we’ll have the information available to show them exactly what hour and date the consumption took place.”

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CUD CASE



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“On one of our test installations a couple said they could never have used that much water during the month because they were out of town,” said Dunnill. “Fortunately, Kevin Hickerson had an ORION Data Profile Transmitter in place. He pulled the information and showed them exactly when the spike in usage occurred which was during a time they were gone. Eventually they remembered that their mother had come over to water the flowers and realized who used all of the water. Without data profiling we would have had to remove the meter, bring it into the shop and test it. This takes time, and even though the meter tests out, the consumer always doubts whether the bill is accurate.”

Dunnill also appreciates the leak detection feature of the Badger® ORION® system. “Leak detection will flag the account if there is a 24-hour period during which there is not a single hour increment of zero consumption. Even if it is something as simple as a leaky toilet that is experiencing a constant cycle of filling up and shutting off, it’s going to show up and we can proactively mail a postcard to alert the customer.”

Although all of CUD’s 37,000 meters will be upgraded in the next few years, CUD implemented a rollout plan that addressed the most pressing issues first. “Hickerson prioritized converting the routes that took the longest time to read and were also considered to be the most dangerous by the meter readers themselves,” said Dunnill. “We all recognize that reading meters alongside a major highway is inherently risky and less productive than taking readings from a laptop while driving by in a truck. When meter readers pull over, exit and enter their vehicles next to a busy roadway there is always the possibility of an accident and/or injury. Even though our meter readers have endured some nasty accidents, to date we’ve been very lucky that no one has been seriously injured.”

Reliability was also very important to CUD and Dunnill contacted other utilities concerning their experiences with various manufacturers. “We heard stories of utilities that installed AMR Meters from various vendors and they had a number of failures upfront. Of course these were under warranty but you’d rather

not have to deal with this type of problem in the first place,” said Dunnill. “The thing about the Badger ORION system is other utilities reported very low failure rates and they seemed to be very happy with their selection. Our experience has been the same. We now have over 7,000 Badger meters in the ground and we’ve had only one or possibly two failures. That’s great and we couldn’t be happier.”

Although technology was important, the selection process was careful not to recommend a manufacturer that may not be around to provide future customer service. “We wanted to work with a company that had been in business for a while,” said Dunnill. “Some newcomer may come on the scene with the best AMR solution in the world, but if you commit to them today and they’re out of business tomorrow, you’re out of luck.”

The population of Rutherford County continues to grow and Consolidated Utility District is thankful that the Badger ORION AMR System provides the best technology solution to accommodate it. ■