

CASE STUDY

Badger[®] ORION[®]

Radio Frequency System



Michael Clay from the West Wilson Utility District profiles a customer's meter using the Badger[®]-Radix[®] handheld.

Badger[®] ORION[®] Helps Tennesseans Avoid Safety Hazards

By: Ted Schaar

The West Wilson Utility District is situated in a picturesque, somewhat rural part of Tennessee with narrow, hilly, and curvy roads. Though pleasing to the eye, before the installation of Badger[®] ORION[®], the roads caused safety concerns for District employees who needed to park their vehicles and visit each meter to retrieve a reading.

In fact, eliminating safety concerns due to the roads was a primary objective in the decision-making process that led the District to install the Badger ORION system.

Other objectives included increasing reading accuracy; reducing personnel hours and shortening monthly read times, thereby freeing employees to perform other duties; reducing wear-and-tear on vehicles; and improving customer service.

Terrain made reading difficult

"There definitely were some hazards associated with the manual way of reading meters," said Supervisor Tom Faulk. "ORION has helped us do our reads safely—which is a big improvement."

Meter Reader Michael Clay states: "We have a lot of older areas where the streets are very narrow. When we used to walk meter to meter, it was a hazard to stop and get out of the truck with vehicles whizzing by."

Clay recalled one instance when he parked his truck on a hill, and a dump truck approached heading in the same direction. A car was traveling toward him from the opposite direction, and there wasn't enough room for all three vehicles. "The dump truck driver couldn't stop, so to avoid hitting the car or my truck," Clay said, "he went over the curb and passed between me and the residence." Fortunately, no one was hurt.

Close to Nashville

The utility's territory is located about 17 miles east of Nashville and covers the western end of Wilson County. Water for about 18,000 connections and a user population of 55,000 is obtained from Old Hickory Lake.

Named for Andrew Jackson, the lake was formed in 1954 with the completion of a dam across the Cumberland River. The lake offers 300 miles of shoreline and has provided home sites to many stars, including Johnny Cash and June Carter.

Growing area

Mt. Juliet, the largest city in the District, has experienced tremendous growth in recent years, especially in commercial and retail development.

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About the Author:

Ted Schaar is a freelance writer based in Brookfield, Wisconsin.

WEST WILSON CASE



BadgerMeter, Inc.

P.O. Box 245036 • Milwaukee, WI 53224-9536

(800) 876-3837 • Fax: (888) 371-5982

www.badgermeter.com

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Michael Clay from the West Wilson Utility District reviews data using the profile viewer on the laptop.



The West Wilson Utility District meter readers face many hazards due to narrow, curvy roads, and this photo illustrates one example of some of the road hazards encountered by on a daily basis.

Several business and industrial construction projects are currently underway and several more are in the planning stages.

A variety of residential developments, including a retirement community, are also under construction.

Personnel visited AMR users

Prior to selecting Badger ORION, District personnel reviewed a number of AMR installations, including several in Tennessee and one in South Carolina.

“ORION received many compliments from other utilities,” said Customer Service Supervisor Regina Carr. “Field personnel liked it and so did billing people. We also heard many good things about Badger ORION’s Remote Data Profiler, and it has worked well for us, too.”

Remote Data Profiler

The Profiler provides data on water usage patterns that can help answer customer billing questions, detect leaks, and provide advice on water conservation.

“One businessman was concerned about a leak that he thought he might have under the firm’s parking lot,” Faulk said.

“He didn’t want to tear up the pavement if he didn’t have to, so we profiled the meter and confirmed that he had a pretty significant leak. He was very appreciative and impressed that we were able to provide this service to him.”

Unusually hot weather increases water usage

Wilson County, like much of Tennessee, experienced record-breaking high temperatures in the summer of 2007, along with drought conditions. Many customers watered their lawns more than usual, and some were surprised by the impact this had on their bills.

“The ability to profile the meter and show customers a printout that detailed the number of gallons used and the exact times they were used,” Carr said, “has been invaluable in proving to some that the water they’re being billed for was actually used.”

Carr continued, “We have also found the Potential Leak Report very helpful in alerting customers to leaks that, in many cases, they were totally unaware of until we contacted them.”

Productivity, accuracy, and safety improvements

District productivity has improved

considerably with the arrival of the Badger ORION system. “Previously, it took three meter readers up to 15 days to cover our territory,” said Faulk. “Now one person in a truck does the whole district in four days.”

The transition to Badger ORION began in April of 2006, and was completed in October 2007. “With the system totally installed, we expect to see even more improvements in productivity,” Faulk said, “as well as a bigger overall cost savings over the next few months.”

Carr added, “Accuracy has improved also. Before we typically had 15 to 20 misreads every month that needed to be corrected; ORION has eliminated those completely. It takes the human factor out of the equation and eliminates a tedious job that was very time consuming and could be hazardous. Thanks to ORION, our employees rarely have to read a meter manually.”

West Wilson Utility District personnel are equally happy with the service they’ve received from Badger Meter distributor United Utilities. “Everything went smoothly, and it’s all working well,” concluded Faulk. ■