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## **VEC getting AMR meter benefits it sought**

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by RICK NORTON, Associate Editor

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Volunteer Energy Cooperative successfully entered the world of Automated Meter Reading (AMR) technology six years ago for some of the same reasons that Cleveland Utilities is now changing out its 30,000 customer units — to save money, to expedite power outage response time and to improve billing accuracy.

The 17-county utility's electric distribution grid maintains 9,000 miles of power lines and serves more than 110,000 customers from the Georgia line to the Kentucky border.

CU operates only within Cleveland and Bradley County, but provides electric, water and wastewater services.

VEC serves 17,500 electric customers in Bradley County, most of whom were among the first to receive the new AMR units when the initiative was launched. A few remaining commercial accounts will receive their AMRs over the next few months, according to Rody Blevins, president and CEO of the customer-owned utility.

The utility, whose electric customer volume is almost four times larger than Cleveland Utilities, is already benefiting from many of the efficiencies it sought when AMR technology was first researched long before the meter change-out began.

“Our operations are more efficient, billing is more accurate, customers and customer service employees have access to more and better information, and we have a real-time view of the electric distribution system,” Blevins told the Cleveland Daily Banner. “We are very pleased with the system.”

Like any system featuring new technology, VEC endured a few early hiccups and limited customer opposition based on what utility leaders say was misinformation about the AMR devices. Cleveland Utilities is now dealing with some of the same public perception issues that CU General Manager Tom Wheeler said is causing an isolated pocket of opposition, most of it coming from members of Bradley County's tea party.

Patty Hurley, vice president of VEC marketing and economic development, and Robert McCarty, VEC spokesman, pointed out the utility has remained open and receptive to addressing customers' questions about the AMR technology. CU is as well, Wheeler said.

The Cleveland Board of Public Utilities has heard past presentations from tea party members with issues ranging from installation of the new meters to CU's proposed role in helping to fund a new industrial park on the southern end of Bradley County near McDonald.

“We have received very few negative comments,” Hurley said. “The negative

comments we have received stem from misinformation that has been distributed on a national level and a misunderstanding about the type of system that VEC is using.”

She added, “Most customers, especially the ones who are proactively attempting to reduce their costs and electric consumption, appreciate the ability to obtain daily usage history on their accounts. Our customer service employees like the system because it gives them an additional tool that they can use to advise and converse with customers.”

The CU and VEC automated reading systems are similar, but they do have a distinct difference. The VEC system transmits its power-use readings from the customer meters over power lines back to substation equipment and on to the billing system. The CU system uses radio frequency (RF) signals, and not over power lines. RF signals are the same type of technology used in cell phones. Tea party members object to so-called “SmartMeters” by citing their potential as a health hazard blamed primarily on RF signals. Opponents also claim the AMR units can be used to control power and appliance usage inside the home. They also consider the units a Big Brother type of privacy invasion.

Wheeler has countered each of the claims by pointing out this is not the intent of the new CU meters. Like VEC, Cleveland Utilities is seeking to reduce costs, quickly identify power outages and improve response time, and make the overall meter-reading system more efficient. CU is also installing its version of AMRs in order to prepare for the start of TVA’s new time-of-use billing rates.

Blevins said the AMR technology selected by VEC was based on power grid size.

“It was simply an economic decision based on the physical size and structure of our electric distribution system,” Blevins stressed. “The systems that read frequency signals (RF) are normally more economical for utilities that need to read both electric and water meters in a concentrated area.”

He added, “In the case of VEC, our vast service area and the absence of water meter reading responsibilities made the power line transmission option more cost-effective. We can optimize the economic and environmental benefits by not needing a person to drive the area to collect data.”

What little opposition VEC receives to its new meters is normally satisfied when the utility’s technology is explained, McCarty said.

“The technology that VEC uses to automate the meter reading is very different from the structure of what is normally referred to as the ‘SmartMeter,’” McCarty explained. “We transmit our data directly over the power lines. Our meters do not have the capability of limiting customer usage, collecting specific information about activities in the house or otherwise being invasive to the customer.”

In past public meetings and individual interviews, Wheeler also has attempted to reassure customers this is not the intent of the AMR technology selected by CU

engineers.

Blevins pointed out the size of VEC's service area made it necessary to research new technologies that might improve efficiencies and save money.

"Reading (manually) each of these meters (110,000) every month was a large effort and a huge drain on cooperative manpower," Blevins explained. "Our ability to read these meters individually by hand was heavily dependent on factors out of our control such as weather and our ability to access a customer's property."

Automating the process allowed VEC " ... to focus our resources on more proactive efforts such as maintaining the system right-of-way to prevent outages," he said.

"In addition, we are able to link the Automated Meter Reading system with other automated services," Blevins noted. "VEC customers can now report outages, receive account information and pay their bills electronically 24 hours a day, seven days a week. Just like other businesses, we are facing costs of labor and materials every day. The automated systems allow us to use our workforce more efficiently."

The VEC leader pointed to another less known benefit AMR technology has made possible — the environment.

"In addition to improved billing accuracy, better customer service and lowering costs for manpower and fuel, our AMR system has also allowed us to lower our carbon emissions considerably by reducing the number of times that service trucks visit a customer's location," Blevins said.

VEC's new system " ... has helped improve our billing accuracy markedly," according to John Selvidge, Cleveland area manager offered. "The meter readings are inserted into the billing system electronically, minimizing the risk of human error."

Selvidge added, "We read each meter every day. This information is helpful when a customer has questions about a high bill. We can pinpoint higher usage days, or perhaps, a period where high usage begins. This can indicate a possible equipment malfunction that is causing high bills. For example, if a customer's water heater or heat pump is having issues, the customer may not immediately realize that there are problems. Reviewing the daily usage for the account is a great tool to help the customer identify these types of issues and resolve them."

System installation costs did not cause increased power rates to VEC customers, Hurley explained. "No rate increases were necessary to deploy the AMR technology," she said. "The costs were covered by existing revenue and improved efficiencies of the system."

This also will be the case at Cleveland Utilities, Wheeler explained.

Blevins said VEC researched several AMR technologies years ago before making its final decision.

“I am not familiar with the specifics of CU’s meters or their deployment, or of the specific comments that have been made regarding the CU system,” Blevins advised. “However, I can address any remaining concerns of VEC customers. VEC is a member-owned electric distribution cooperative. We are owned by our customers and governed by a popularly elected Board of Directors.”

He added, “The idea that there is some conspiracy or ulterior motive involved in the deploying of this automated technology is foreign to our structure of member ownership.”

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