



ADVANCED METERING INFRASTRUCTURE OPPORTUNITIES FOR COOPERATIVES

The enhanced data collection and analysis and two-way communication of advanced metering infrastructure (AMI) open many new doors. Although its use by co-ops continues to evolve, at a broad level, AMI enables opportunities that support grid operation and member service.

OPERATIONAL BENEFITS

From an operational perspective, AMI can greatly reduce truck and personnel dispatches, as co-op representatives no longer need to visit member sites for meter-reading and connect/disconnect procedures – these can be performed remotely. Expenses and employees previously devoted to these tasks can instead be redirected to other co-op uses and functions.

AMI is also a boon to outage detection and response. For example, the technology can help co-ops determine whether an outage is originating from their end or from a member location. In addition, when making repairs, co-op workers no longer need to drive by lines to verify restorations; instead, they can ping meters along the lines to ensure that homes and businesses have their power back. And even before an outage occurs, AMI can assist with identifying equipment that may be overloaded or damaged and require replacement. In other words, AMI lets co-ops be proactive and plan ahead rather than have to respond to issues after they occur.

MEMBER AND PROGRAM BENEFITS

AMI has several capabilities that can benefit member service and allow for more tailored support, products, programs and communication. For example, the enhanced information it provides can be used to better analyze member usage data and explore irregularities. If an issue is believed to be at play, the co-op can notify the member and work to identify the problem. In addition, members can receive information about electricity price signals, their energy usage and their projected monthly bill, which can help them make more informed decisions about their consumption.

AMI supports new pricing and rate mechanisms that benefit both members and co-ops as well. For example, prepay (sometimes called flexpay) programs allow members to pay for their electricity in advance, as they need it. These pay-as-you-go offerings provide updates on electricity usage and remaining balance to help members budget, and they frequently do not require an initial deposit, reducing financial burdens further. From a co-op perspective, these billing structures can reduce delinquent payments, write-offs and disconnects/reconnects.

AMI EXAMPLE: BRUNSWICK ELECTRIC MEMBERSHIP CORPORATION

One example of AMI in action is seen at Brunswick Electric Membership Corporation (BEMC) in North Carolina. BEMC implemented AMI for several reasons, including the increased efficiency, better dependability and accuracy, and the ability to get detailed usage and voltage readings.

To switch to AMI, BEMC had to first install new substation equipment and then replace all of its existing meters. Brian Hall, SCADA/AMI engineer, explained, “I think the biggest challenge was just organizing the phases of the project and coordinating everything that needed to take place within different departments.”

Even with this challenge, however, AMI has brought numerous benefits and opportunities. Internally, the co-op is using the hourly data and voltage readings to monitor how the system is performing as a whole. For example, the data enables staff members to identify potentially overloaded transformers that they can replace before failure.

AMI has also enabled BEMC to implement new member programs. It now has a monitoring program that allows co-op staff to look at usage data and identify irregularities that indicate a problem. When BEMC sees high usage, it immediately contacts the member and helps them diagnose the problem.

Another member initiative is PrePay Power, a pay-as-you-go billing program. Members can pay for their power when they need it over the phone, in person, at a bill payment terminal or online through the BEMC SmartHub portal, which also allows them to view their monthly, daily and hourly usage in easy-to-read graphs.

Since implementing PrePay Power, BEMC has seen fewer delinquent payments, write-offs and site visits for disconnects and reconnects. Additionally, members have benefited from not having to pay deposits, late charges, and disconnect and reconnect fees. They are also able to better understand their energy usage.

PrePay Power is just one program made possible by AMI, and the technology provides an opportunity for co-ops to implement additional energy efficiency and demand response efforts. Overall, AMI is a smart choice that provides numerous benefits for co-ops and their members.

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