Advanced Metering Infrastructure, or AMI, is the name for new technologies that provide two-way communication with smart meters. The technologies enable electric companies to analyze energy usage, identify potential problems, provide better electric service and implement programs that can help their members and customers.

One example of AMI in action is seen at Brunswick Electric Membership Corporation, located in southeastern North Carolina. BEMC was founded in 1939 and serves over 90,000 meters. They decided to implement AMI for many reasons, including increased efficiency, better accuracy and dependability, and the ability to get detailed usage and voltage readings.

In order to switch to AMI, BEMC had to first install new substation equipment and then replace all of their 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 to BEMC. Internally, they are using the hourly data and voltage readings to monitor how the system is performing as a whole. For example, the data enables them to identify potentially overloaded transformers that they can then replace before an actual failure.

“AMI is a tool that has allowed us to do wonderful things for our members.”
- James Green, BEMC Manager of Customer Service
AMI has also enabled BEMC to implement new member programs. They now have a monitoring program where they can look at usage data and identify irregularities that may be a sign of a problem the member is unaware of. When BEMC sees high usage, they immediately contact the member and help them diagnose the problem.

Another new member program is PrePay Power, which allows members to pay for their power in advance, so they can buy the power they need when they need it. Members are able to pay for their power 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.

“I really like the PrePay program because I don’t have to worry about any bills, any late fees and it also allows me to monitor what I’m using in my home, and if I have any issues in my home I can also see that as well. If you want to save money, pre-pay is the way to go.”

- Christie Stephenson, BEMC Member

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

PrePay is just one program that is made possible by AMI. This smart technology provides an opportunity for utilities to implement additional energy efficiency and demand response programs. Overall, AMI is a smart choice that provides numerous benefits for electric utilities and their customers.