AGi FAQ

Technology to serve you even better

Technology to serve you *even* better

As Dakota Electric is making investments to improve our electric grid, we are researching replacing older meters with advanced meters, similar to what other cooperatives and utilities around the country have already done.

Benefits:
- Increased system efficiencies
- Improved outage notification & restoration
- More energy information for members
- Replacement of aging infrastructure

SOME FREQUENTLY ASKED QUESTIONS ABOUT AGi

What is AGi?

AGi stands for Advanced Grid Infrastructure (AGi). Dakota Electric is using this term to refer to new technologies that would enhance the communication and operation of our distribution system that delivers electricity to our member-owners. These technologies will help Dakota Electric monitor our system for better efficiency and operation and allow us to have two-way communication to field equipment, providing numerous benefits to our members and Dakota Electric.

Is AGi the same as "smart meters" or "smart grid"?

Some in the industry have been using the terms "smart grid" or "smart meter" to refer to components of this new technology. When we use the term AGi, we are referring to what has been called "smart meters," but it is also referring to more than that. We wanted to use terminology that captures the wider scope of this project, from the meter to our control center to our customer information system.

Why is Dakota Electric looking at installing this technology?

Our existing meters and load management devices are aging, and the average age of these devices is more than 20 years old. Dakota Electric has more than 116,000 electric meters and about 50,000 load control devices in use today, and we are looking at the best technology to replace this infrastructure.

What are the benefits of AGi?

New metering technology can communicate meter readings and outage information directly to Dakota Electric's office and help us prevent outages by identifying failing equipment or overloaded situations before they turn into extended power outages. When an outage occurs, the system will rapidly collect information from individual meters and automatically report the outage so power can be restored, even if the member is away from home.

AGi will also help support the increased integration of renewable energy on the distribution system.

A summary of benefits:

- Automated power outage reporting, improved restoration and member communications;
- Enhanced reliability and power quality improvements;
- Improved energy usage information and options for our members;
- Reduced costs for power delivery to our members;
- Support increased integration of renewable energy;
- More efficient internal business processes regarding billing and metering;
- Better planning, utilization and operation of our distribution system;
- Operational savings;
- Improved and more effective load management system;
- Improved employee safety.

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What is the timeline for AGi at Dakota Electric?

In June 2018, we received final board approval and signed contracts with vendors. Internal design and meter testing and verification will take place in 2018. Then in 2019, we plan to install a limited number of meters and equipment to verify operation and performance of the interconnected systems. If all is in order, we will begin the installation of new meters in 2020, with meter installation taking approximately 24 months.

What will AGi cost?

We estimate the entire project will cost about $1-2 per member, per month through the life of the system, though this estimate may change. Besides the up-front costs of the installation of the new technology, there will be ongoing costs to operate the system. However, there are ongoing costs with our current metering system and infrastructure that will be avoided. The additional cost, above the operational costs of our current system, is less than $6 million over the 15-year life cycle of the equipment.

What about privacy?

We use our members' energy usage and operational data for billing purposes and troubleshooting and resolving problems with equipment or services. We treat personal information and data about our members as confidential. Our use of load data will be strictly limited to the provision of electric service. We will not disclose, share, rent, lease, or sell individual customer data to any third party or affiliate for any other purpose, without the member's express, affirmative written informed consent.

What about health concerns?

Research conducted by the Federal Communications Commission (FCC), the Electric Power Research Institute, the Utilities Telecom Council and others has found no negative health impacts from digital meters that send information via a wireless communications network. The radio frequencies (RF) emitted by digital meters fall well below the maximum recommended in federal guidelines.

The following information is from the American Cancer Society: "How much RF energy that people are exposed to from the smart meter depends on how far they are from the smart meter antenna and how the smart meter sends its signal. The frequency and power of the RF waves given off by a smart meter are similar to that of a typical cell phone, cordless phone, or residential Wi-Fi router. Smart meters typically send and receive short messages about 1 percent of the time. Because the smart meter antenna usually is located outside the home, people are much farther away from the source of RF waves than some other possible sources of exposure to RF radiation, such as personal cell phones and cordless phones. In addition, walls between the person and the smart meter's antenna further reduce the amount of RF energy exposure. This means that the amount of RF radiation that someone would be exposed to from a smart meter is probably much lower than the amount that they would be exposed to from other sources."

What if I don't want the meter installed?

We plan to offer an "opt-out" feature, so that those who do not want a smart meter can request that we do not install one. Choosing to opt-out will most likely incur a monthly charge for the cost of manually reading the meter.

Where can I stay updated on the project?

Visit our web page dedicated to this project at www.dakotaelectric.com/agi

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