
Advanced Metering Infrastructure (AMI)

Fergus Electric is in the beginning stages of upgrading its metering system. The new Advanced Metering Infrastructure (AMI) requires an installation of new equipment to send members' electrical usage to the main office. The co-op's "turtle" meter reading system, which was originally installed beginning in 2005, has become obsolete and the manufacturer is not guaranteeing support of it beyond December 31, 2020. Given how technology changes so rapidly, the co-op is satisfied that the old metering system has lasted 15 years.

After a considerable period of studying and comparing prospective metering systems to replace the old turtle meters, Fergus Electric selected what is known as an Advanced Metering Infrastructure, commonly referred to as AMI. The new meters are approximately the same size as the current turtle meters but offer a way of reading the kilowatt hour usage more frequently. The new meters communicate with antennas that send energy usage information to the co-op. The meters will automatically read every 15 minutes, whereas the current turtle meters read the usage every 27 hours. One benefit of having meters transmitting readings every 15 minutes is that, if a meter fails to transmit a reading, the co-op can pinpoint the exact location of the meter or meters that are not transmitting information and troubleshoot the problem. The new meters record electronic meter readings, the date and time of energy usage, the overall peak demand of the electric account, and the number of times the meter has experienced a loss of power for any reason. What's more, the meter will record the date, time of light blinks and the length of the power outage. The meter display is visible for members to be able to check their consumption. Members may also view their account information via SmartHub. All other information and data stored in the meter is secure and the meter is sealed. Fergus Electric will be able to tell if someone "tampers" with a meter because the meter will report any attempts of tampering.

Fergus Electric Cooperative owns and maintains all parts of its distribution system to the meter. After the meter, Fergus Electric members own the meter base and are responsible for the maintenance of this equipment. This includes making the correct repairs to the meter base if it is damaged and/or unsafe. This ensures a safe working environment for Fergus Electric line crews performing the necessary work to upgrade the meter.

Outage Management System (OMS)

In conjunction with the AMI, Fergus Electric Cooperative is working with NISC, our software company, to implement an Outage Management System (OMS) once the new AMI is installed. The long-term goal is to install the OMS software program, which will alert the office immediately when the power goes off to a substation, an individual line, and even an individual meter. The co-op sees this benefit as a significant improvement for both the member and the co-op. If the power should go out to a remote stock well, cabin or even to homes whose occupants are away at work during the day or on vacation, the co-op will know immediately during work normal business hours, and after hours, co-op personnel can receive notifications via text, email, etc., and the power can be restored in a timelier manner.

Benefits of the Advanced Metering Infrastructure (AMI)

and

Outage Management System (OMS)

(Bullet points are in random order)

- The system will allow remote connections, re-connections, and transfers of service immediately on single-phase 200 Amp services
- Members can view daily and hourly energy usage online, using the SmartHub app
- Provides the ability to email outage reporting notifications to members using a template
- Allows a prepaid billing option for single-phase 200 Amp services
- Efficient meter reading and billing accuracy
- Can collect meter reads on demand
- Enables the outage management system to detect the locations and times of outages
- Saves time and resources by reducing the number of visits to meter locations
- Improves the reliability of the online energy data by reading more frequently
- Will provide voltage level and fluctuations
- Enables Fergus Electric to search up to six months of historical outage records
- Enables Fergus Electric to view the maximum demand to ensure that each transformer is sized adequately
- The OMS call back priority field will allow the co-op to indicate the order in which the provided phone numbers (home, cell and work) should be called with outage information
- Will enable Fergus Electric Cooperative to optimize distribution system as receiving real-time data of the distribution system will help employees repair problem areas
- The system will allow for Time-of-Use (TOU) metering

Frequently Asked Questions

Fergus Electric is upgrading its metering system. The new Advanced Metering Infrastructure (AMI) requires new equipment to send members' energy-related data to the main office. The following are some of the co-op members' frequently asked questions.

Q: I see Fergus Electric Cooperative line trucks on my property. What are the linemen doing?

A: The linemen are currently performing a survey of the existing powerline to assess if the location is deemed suitable for installing new equipment related to the new metering program. After which, linemen will be installing equipment as our metering system upgrade gets underway.

Q: What are the devices being installed?

A: The devices are relay equipment that communicate members' energy usage, using a secure communication path, to the main office. Although it used a different instrument, the turtle metering system communicated with the office too.

Q: How are the new meters different from the meters currently being used?

A: Overall, the new meters are not so different from the old, turtle meters. They are both secure digital electronic devices that provide accurate readings. They both can be read remotely from the office. Several differences are that the new metering system will allow for a prepaid billing option, members will be able to view their usage online, and the meters will be automatically read every 15 minutes, which will assist in earlier outage detection.

Q: How long will the system last?

A: The current metering system has lasted for approximately 15 years. The cooperative expects the new system to last over 20 years. The metering system that the co-op is implementing is widely used, making it more likely to be supported by manufacturers for many years to come.

Q: Will rates go up?

A: The Fergus Electric board sets rates with the goal to continuously provide safe, reliable, affordable, high quality power to our members. Power supply is approximately 66% of the total expense at Fergus Electric. Operating costs (AMI included) makeup the remaining 34%. Fergus Electric currently anticipates rate stability to continue, going forward. Fergus Electric sees valuable benefits in the new AMI and OMS system for our members, such as time of use rates, outage detection, etc.

Additional Information

Website: <http://www.ferguselectric.coop/> • Facebook : <https://www.facebook.com/ferguselectric/>

If you have questions, please call Fergus Electric Cooperative at (406) 538-3465.