

## Frequently Asked Questions

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Firelands Electric Cooperative is upgrading to an advanced metering infrastructure (AMI) in order to improve the efficiency and reliability of our electrical system. Many members have asked questions about these new meters and how they work. Below are answers to some of the most common questions:

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### **When will my meter be installed?**

The first phase of upgrades began in early December 2014 with meters in the Ashland Substation area. Once this phase is complete, meter change-outs will continue across the co-op's territory, according to geographic location. Members will receive a postcard in the mail prior to the start of meter installations in their area.

### **Will I lose electrical service during the installation?**

Yes, for just a few minutes. You will need to reset electronic clocks and other devices.

### **How does my new meter work?**

Automated meters have been used by Firelands Electric for more than 15 years. The current system reports energy-use updates on a daily basis. The new AMI meters use Two-Way Automatic Communications System (TWACS) power line carrier technology, which will allow the co-op to receive hourly meter readings and real-time data. This data will make a variety of advanced applications available — including outage management, “blink” monitoring and remote disconnect and reconnect. The TWACS system will make it possible for Firelands to monitor the system better and correct inefficiencies.

### **Why are we changing to AMI meters?**

This meter upgrade provides Firelands members with numerous benefits. The new meters will help the cooperative:

- **RESPOND FASTER TO OUTAGES.** The two-way meters tell us when and where there is an outage.
- **IMPROVE RELIABILITY.** More accurate outage information will be providing, reducing restoration times.
- **INCREASE EFFICIENCY.** Our employees will spend less time on the road reading meters and pinpointing outages.
- **IMPROVE electric service reliability.**

### **How much is this going to cost?**

There will be no additional costs to the member to install the new system.

**Who will be changing out the meters?**

Contractors will be installing the new meters on behalf of the cooperative. The crews will have several types of identification, including Firelands Electric contractor badges, vehicle signage and a letter from the cooperative.

**Do members have a choice in getting a new meter?**

New meters will be installed on all accounts. This system-wide upgrade will allow the co-op to acquire more accurate information, and to improve our service and reliability for our members.

**Will I keep the same rate after the conversion?**

Yes, members will continue to stay on the same rate schedule as they were on in the past. There will be no increased cost to the member.

**What if my bill reports more kWh usage than normal or I think my meter is not working correctly?**

Contact the cooperative office to discuss any billing concerns you may have.

**What information does the new meter record?**

The new meter records an electronic kWh reading, the date and time of energy usage, the overall peak demand of the electric account, if the meter has rotated backwards, and the number of times the meter has experienced a loss of power for any reason. In fact, the meter will record the date and time of light blinks and the length of the power outage.

**What day of the month will the meters be read?**

All of the co-op's new meters can be read at a variety of times to obtain a history of account information. However, for billing purposes member bills will be read on the same monthly schedule used in the past.

**Once co-op employees no longer need to read the meter, can obstacles be constructed that may make the meter inaccessible?**

No. Reasonable access to equipment still must be maintained. This allows for cooperative personnel to either read or maintain the meter if it becomes necessary.

**How will the co-op read the meters?**

The cooperative's computer will communicate with the substation-installed equipment, which sends a request for one or more meter readings. The meter reading is then sent back to the co-op via a secure network.

**How secure will the new meters be?**

The meter display is visible for members to be able to check their consumption, but all

other information and data stored in the meter is secure and the meter is sealed. Although not impossible, it is extremely unlikely for someone other than the co-op to access your meter information. Electric cooperatives are paving the way for other utilities to safeguard their systems, thanks to research and development of the advanced cybersecurity measures needed to protect the evolving smart grid. Meter manufacturers are incorporating security features and encryption technology into their meters, as recommended by national security experts. Our goal is to upgrade our electric distribution system to make it safer, more secure, and more reliable. Your new meter is part of this effort.

**Are there any potential health impacts from a meter that can receive and send data?**

No. People are continuously exposed to very low levels of natural and man-made radio frequency fields (RF). Even the earth's surface and the human body are constant sources of RF fields. Research conducted by the Electric Power Research Institute (EPRI), the Utilities Telecom Council and others has revealed no health impacts from digital meters. The radio frequencies emitted by digital meters falls well below the maximum recommended in federal guidelines. Contrary to some misconceptions, the new meters emit radio frequencies only when responding to a request for data from the co-op office – either once every fifteen minutes or once every hour for less than a second. Compare this activity to a laptop with a wireless connection, which is constantly sending and retrieving data. A digital meter emits only 0.000015 milliwatts per square centimeter (mW/cm<sup>2</sup>). The RF level of a cell phone is more than 12,000 times that! And your electric meter is installed on the outside of your house, not next to your ear. Click here for additional information on EPRI's research regarding RF:

[RadioFrequencyExposureLevels.pdf](#)

**Will the co-op continue to do service inspections?**

Routine inspections of all meters and services will continue in order to look for safety hazards, theft or other problems.

**Can the cooperative disconnect electric service using the new meters?**

Yes, meters can have remote reconnect and disconnect capabilities.

**Will the new meter notify the co-op when the power goes out?**

The meters will be able to record outages allowing the cooperative to verify whether the outage is on the member's side of the meter or on the co-op's.

**Will the co-op notify me prior to installation?**

Yes. Postcards will be mailed out prior to new meter installation in your area.

**How will I know if my meter has been changed?**

Contractors will leave a door hanger on your front door to let you know they have changed the meter. You do not have to be present during the meter change.