

PCEC Smart Meters

Platte-Clay Electric Cooperative gradually installed smart meters from 2004-2006 to improve the efficiency and reliability of the electric system.

When will my meter be installed?

All Platte-Clay members have smart meters.

The co-op began installing digital modules in existing analog meters in 2004 and wrapped up installation during 2006. As the older meters, which now are obsolete, fail, they are being replaced by new digital smart meters.

Will I lose electrical service during meter replacement?

If Platte-Clay needs to work on the meter, members will lose service for a few minutes and need to reset electronic clocks and other devices.

How does my automated meter work?

With these automated meters, usage information calibrated by the meter is transmitted back to the co-op periodically. Transmitting this data electronically means that members no longer need to read their meter each month.

Why did the co-op change to the automated meters?

The meter upgrade provides Platte-Clay members with numerous benefits:

- Probably the most important is improving billing accuracy, eliminating misreads or inaccurate readings.
- Pinpoint the exact location of outages quicker, meaning a faster response time.
(Members also can learn about outages by clicking on the outage map tab on the website, www.pcec.coop)

- Help consumer-members troubleshoot high-bill problems by providing information about power consumption patterns, outage and blink count history and voltage information, reducing usage questions.
- Improve electric service reliability and power quality – fewer outages, blinks and surges. For instance, if Platte-Clay learns of blink problem or an outage, crews can be sent to repair damages and restore service.
- Help secure the overall safety of the cooperative employee team.

How much did this cost?

There were no additional costs to members to install the new system, and no rate increase associated with the project.

Updating the meters was part of a routine maintenance program to gradually move away from older equipment, which is becoming obsolete, to more accurate digital meters.

What other additional installation parts will a member need?

No additional parts are anticipated or required.

Who changed out the meters?

Platte-Clay technicians changed out the meters and installed the upgraded digital models.

Did members have a choice in getting a new meter?

No. Updated meters were installed on all accounts.

The cooperative conducted a system-wide program that over two years changed out all of the existing residential and commercial meters in order to acquire more accurate information without the need for a member to re-check the meter reading or the co-op to roll a truck and enter a member's property.

With the new system, customer service representatives can access the meter information and obtain the reading almost instantaneously.

The new system gives the cooperative periodic meter readings, instead of only monthly readings. Other features of the new system provide new data that enables us to monitor the system better and correct inefficiencies.

What's the difference between the new meters and the old meters?

For most members, it is the same type of meter with the exception that a new digital module has been installed. In other words, the "new" or actually refurbished meters now are digital electronic devices while the old meters were an electro-mechanical device. As these older units fail, they will be replaced with new digital meters.

The new meters display the meter reading in a digital LED format.

The biggest difference is that the new meters have an electronic circuit board module installed. The module receives and stores the kilowatt hours (kWh) and demand consumption recorded by the electronics in the meter, and is able to securely transmit it and other system data back to your cooperative's computers.

Did my rate change?

No, there were no rate changes and 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 Platte-Clay by calling 628-3121, or e-mail customerservice@pcec.coop right away to discuss any billing concerns.

Electronic meters are more accurate than analog or mechanical meters. These meters provide accurate readings and a consistent billing period.

The new meters installed have been tested and meet American National Standards Institute (ANSI) regulations.

Will Platte-Clay techs ever need to come to check the meter since the new meter is in place?

Yes. Platte-Clay technicians may stop by for routine inspection, for safety checks and even to replace a meter if a member reports a problem or if the co-op notices unusual readings.

What information does the new meter record?

The digital 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.

What day of the month will the meters be read?

All of the co-op's new meters are read several times to obtain an accurate history of account information. Each member's billing cycle determines the date for the monthly total.

Can obstacles be constructed that may make the meter inaccessible?

No. The Platte-Clay member is responsible for providing reasonable access to equipment. There are several factors, including safety. First, the National Electrical Code requires the co-op to have access to its equipment. Second, access to co-op equipment is part of the membership requirements. And third, co-op technicians may need to read, repair or replace the meter.

How will the co-op read the meters?

Your co-op's computer will communicate with the substation-installed equipment, which sends a request for meter readings. The meter reading is sent

back to the co-op via a secure network, which includes the co-op's private fiber optic network.

Will someone other than the co-op be able to read the new meter as it transmits data?

It's very unlikely but not impossible. The easiest way for someone to read the new meter would be to go to a member's home and write down the kWh.

The transmitted data includes a member number, much like a code, and the usage. It would be difficult for a random, though sophisticated hacker to tie the member number with a specific location and the amount of energy used.

Should that happen, however, Platte-Clay's billing system looks for unusual billing amounts, based on a member's history, and pulls those bills and checks both the account and meter before sending the bill out.

Meter manufacturers are constantly incorporating security features and encryption technology into meters, as recommended by national security experts. Our upgraded electric distribution system makes it safer, more secure, and more reliable, and the digital meters are part of this effort.

Further, Platte-Clay can tell if someone tampers with a meter because the meter reports any tampering attempts to the cooperative.

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

No. Research conducted by the Electric Power Research Institute, the Utilities Telecom Council and others has revealed no health impacts from digital meters. Platte-Clay's system sends digital data over the power line at 60 hertz—the same frequency as electricity.

Will the co-op continue to do service inspections?

Yes. Platte-Clay will continue routine inspections of all meters and services in order to look for safety hazards, theft or other problems.

How secure are these meters?

The meter display is visible for members to be able to check their consumption. All other information and data stored in the meter is secure and the meter is sealed.

Can the co-op disconnect electric service using the new meters?

Yes. Some meters can be fitted with a remote disconnect capabilities.

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

No. Since we are a power line-based system, if there is something wrong with the power line, the meter wouldn't be able to transmit data back to the co-op's computers. The meters do, in general, allow the co-op to verify if power is on at the meter.