



CVEA Begins Automated Meter Infrastructure (AMI) Deployment



Copper Valley Electric Association will install new, automated meters over the next two years to increase the efficiency and reliability of the electric system in CVEA's service territory. Improving the efficiency of both operations and electricity delivery within the existing electric distribution system can help keep down costs for members.

The biggest change? The new automated meters will enable the Cooperative to perform several functions remotely, such as reading meters and reconnecting power. Remote meter reading will save time, labor and money. In fact, the metering system is expected to pay for itself within eight years.

In addition to reducing operational costs, the new meters, which can receive and send information to computers at the dispatch center at Solomon Gulch and to the Co-op headquarters, will help improve the reliability of the system.

The new technology allows CVEA to detect problems more quickly and to locate outages more precisely. In some cases, problems may be fixed before members even know their power has been out. The new meters will also report when power has been restored. CVEA will know if there are single member out-

ages without relying solely on a phone call from that member.

The new technology allows the team to monitor the electrical system in almost real-time. This information can be used to make the process of delivering power much more efficient. Members can also expect to experience fewer blinks, surges and spikes as a result of the upgrade.

The meters, which provide daily information about power use will help consumer-members understand how and when they are using electricity. Armed with this information, CVEA's customer service representatives will be better able to help members address unusual circumstances and billing inquiries.

According to Travis Million, CVEA COO, "The AMI project is very exciting for CVEA and the membership. Not only will this project save the co-op time, money, and improve the safety of our team, but the ability to identify and respond to outages in a much quicker and more tactical way will be very beneficial. I know the entire team is looking forward to utilizing the new tools that come with the AMI project to improve the reliability, safety, and cost for the membership."

Installation began in the Valdez District on July 16, and is expected to continue through September. Once complete, crews will begin installing the new meters in the Copper Basin, starting with areas that take crews the longest to reach and are the most difficult to investigate during the winter months. The majority of the Copper Basin District will be deployed in 2019.

It is important to note that members whose meters are changed out will see this reflected on their bill; possibly as early as the August billing, but will be determined based on the date of each member's installation. The bill will reflect separate kWh usage for the original meter and the new meter. The original meter usage will be designated as a 'meter exchange' line item on the bill, and the usage from the new meter can be seen under the 'current read' heading of the bill.

An example of a sample bill can be seen on page 5 of this article. In this case, the original meter used 192 kWh and the new meter used 277 kWh. The total of these two meters is 469 kWh, which is the total billed amount. After the initial meter exchange, member bills will return to normal, no longer recording usage from the old meter.

CVEA will continue to provide status reports via *Ruralite Magazine*, cvea.org, and CVEA's Facebook page. For questions, view the Q&A at cvea.org or contact Sharon Crisp at 907-822-5506, 907-835-7005, or email crisp@cvea.org.

ss	Service From	Service To	No. of Days	Billing Date
TON HWY	08/22/2017	9 /11/ 2017	11	9 /20/ 2017
id	Current Read	Mult.	KWh Usage	Past Due Date
	277	1.0	277	10/15/2017
CURRENT BILL INFORMATION				
Customer Charge				12.00
Meter Exchange	2735	2927	192 kWh	32.83
	469 kWh @ 0.0700	=	32.83	
G&T Charge		0.1153/ kWh		54.08
Total Due				98.91



After the installation, you can expect.....

Increased efficiency

Operating more efficiently helps us keep costs down for members.

- With data from the meters coming directly into the offices, CVEA will be able to **read your meter remotely**. Remote meter reading and remote reconnects mean the Co-op eliminates the labor and transportation costs of in-person meter reading - a savings passed on to the members.
- Older systems are less efficient at distributing power. Now, information coming from the new meters will allow CVEA to monitor the system in near real-time and **correct problems and inefficiencies**.
- New system allows for **optimum dispatch** of CVEA crews.
- **Improved safety** from reduced patrolling and quicker fault isolation times during extreme weather improves safety and leads to fewer potential accidents.

Increased reliability

New tools for diagnosing problems and disruptions help us improve reliability for members.

- More advanced and detailed information about what is happening in the field will produce **faster outage response time**. The new meters can pinpoint the exact location of outages and disturbances more quickly.
- With more data we can also **improve power quality** by reducing the number of spikes, blinks and surges.
- More data enables us to provide **more accurate information** about outages and restoration times.

New tools to help keep electric bills affordable

- New meters mean more information about power consumption patterns, outage and blink count history, and voltage information, **improving CVEA's ability to troubleshoot and diagnose problems** leading to high energy bills.
- **Improved billing accuracy** by eliminating misreads or inaccurate readings.

Future Benefits

- Future program that will allow members to prepay their bill.
- Enhancements to SmartHub graphs for members bills.

Something New to Help Serve You Better



Automated Meters Equal Better Service to CVEA Members



The TWACS protocol sends the system commands over existing, unconditioned power-lines to the meter.

Above, the photo above depicts the flow of information using automated meters
Opposite, a picture of an automated meter, similar to what will be installed on CVEA's system
Photos courtesy Aclara

Copper Valley Electric Association will install new, automated meters over the next two years to increase the efficiency and reliability of the electric system in CVEA's service territory. Improving the efficiency of both operations and electricity delivery within the existing electric distribution system can help keep down costs for members.

The impact of the installation will be minimal. Co-op members should only expect to lose power for a few minutes on the day of the installation.

The biggest change? The new automated meters will enable the Cooperative to perform several functions remotely, such as reading meters and reconnecting power. Remote meter reading will save time, labor and money. In fact, the metering system is expected to pay for itself within eight years.

In addition to reducing operational costs, the new meters, which can receive and send information to computers at the dispatch center at Solomon Gulch and to the Co-op headquar-

ters, will help improve the reliability of the system. The new technology allows CVEA to detect problems more quickly and to locate outages more precisely. In some cases, problems may be fixed before members even know their power has been out. The new meters will also report when power has been restored. CVEA will know if there are single member outages without relying solely on a phone call from that member.

The new technology allows the team to monitor the electric system in almost real-time. This information can be used to make the process of delivering power much more efficient. Members can also expect to experience fewer blinks, surges and spikes as a result of the upgrade.

The meters, which provide daily information about power use will help consumer-members understand how and when they are using electricity. Armed with this information, CVEA's customer service representatives will be better able to help members address unusual circumstances and billing inquiries.

Taking advantage of this new technology is one more way CVEA is looking out for the members, and the Co-op is eager to get this project under way.

Installation will begin in Valdez in July 2018. Once Valdez has been completed, crews will begin installing the new meters in the Copper Basin. Members will receive progress updates through Ruralite Magazine, cvea.org, and CVEA's Facebook page.

See below for frequently asked questions and answers regarding this project.

Q: When will my meter be installed?

A: Substation equipment needed to communicate to the meters will be installed beginning in June 2018 with the Valdez meters to follow. Installation of Copper Basin meters will begin in the first quarter of 2019.

Q: Will I lose electrical service during the installation?

A: Yes, for a few minutes. You will need to reset electronic clocks and other devices that have no backup power.

Q: How does my new automated meter work?

A: With these new meters, CVEA can read the meter remotely from either district office. Information from the meter is transmitted to the co-op in daily, hourly, or in 15-minute increments depending on the information. Transmitting this information electronically means that a meter reader no longer comes to your house in person.

Q: Why is CVEA changing to the automated meters?

A: The meter upgrade provides CVEA members with numerous benefits:

- Money savings by eliminating the labor and transportation costs of in-person meter reading – a savings passed on to the members
- Improved billing accuracy, eliminating misreads or inaccurate readings
- Faster outage response time as meters can pinpoint the exact location of outages more quickly
- More accurate information about outages and restoration times will be available that can then be communicated to members
- Improved troubleshooting of 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
- Help secure the overall safety of the cooperative employee team

Q: What other additional installation parts will I need?

A: No additional parts are anticipated or required. However, if something is identified as faulty or hazardous with member's equipment, the co-op will address it at that time.

Q: Who will be changing out the meters?

A: CVEA employees



Q: Do members have a choice in getting a new meter?

A: No. New meters will be installed on all accounts. The cooperative is embarking on a system-wide program that will change 100 percent of existing residential and commercial meters in order to acquire more accurate information, without the need to enter a member's property.

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

A: The new meters are digital electronic devices while the old meters were a mix of digital and electro-mechanical devices. The new meters will display the meter reading in a digital LCD format.

The biggest difference is that the new meters will have an electronic circuit board module installed. The module receives and stores the kilowatt hours (kWhs) recorded by the electronics in the meter, and is able to transmit securely this and other system data to the cooperative's computers over the existing distribution lines.

Q: Will I keep the same rate after the conversion?

A: Yes, members will continue to stay on the same rate class as they have in the past. There will be no increased cost to the member as a direct result of this project.

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

A: Contact CVEA right away to discuss billing concerns. Electronic meters are more accurate than analog or mechanical meters. The new meters installed have been tested and meet American National Standards Institute (ANSI) regulations. The new meters allow for accurate readings and a consistent billing period.

(Continues on page 8)