

AMR

(Automated Meter Reading)

Questions & Answers



Charles Mix Electric Cooperative is implementing an Automated Meter Reading (AMR) system. The system uses ACLARA's Two Way Automatic Communications System, or TWACS. All electric accounts will be read remotely without any requirements to the member. Below are some Questions and Answers that will better explain the operation of the system and how it will be implemented.

Why are we changing to the AMR system?

The AMR system provides Charles Mix Electric members with numerous customer service and cost saving benefits including:

- Saving the cooperative expense in meter reading costs.
- Improving billing accuracy by eliminating

misread or inaccurate readings.

- Enhancing customer service on billing and service issues by providing data to members about their accounts, including daily meter readings.
- Better outage management.
- Save members time in meter reading, bill calculations and submissions.
- Offer improved electric service reliability.
- Helping protect members' assets.
- Helping secure the overall safety of the cooperative employee team.
- Will give Charles Mix Electric the ability to provide members with more detailed information such as power consumption patterns, outage and blink count history and voltage information, reducing high bill complaints.

How does AMR Work?

Using a combination of power line carrier and Internet communications, Charles Mix Electric will bring meter readings and other information back from the member's location to the coop, nearly instantaneously.

How is AMR implemented?

The installation of the TWACS system is done in three parts. The first is installation of equipment in the substations to communicate with both the meters and the computer control equipment. The second is the installation of computer equipment at the CME offices to control the system and collect data. The third is installation of the meters at each and every location with an active electric account.

What changes will I see with my billing?

The main purpose of any AMR system is to

remove the burden of reading the meter and calculating the monthly electric bill from the member. Once your meter is changed, you will start receiving a bill in the mail each month from Charles Mix Electric. Although not required, you can continue to track your electric use by reading and recording readings.

When can I stop reading my own meters and calculating the bill?

When Charles Mix Electric has installed and tested your AMR meter, there will no longer be a need for you to read the meters or calculate your monthly bill.

What day of the month will the meters be read?

All of Charles Mix Electric's 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 the first week of the month.

Will I need a rate chart after the cooperative is reading meter(s) automatically?

No. Members will no longer need to spend valuable time reading the meter and calculating their bills.

How will annual billed accounts be handled?

Annual bills will stay as they are until the anniversary month for that account type is reached, i.e., April for cabins, churches and township halls; October for wells. The meter will be read, and a bill will be sent for the energy use over the preceding year.

From then on, meters will be read by the AMR, and the service charge and energy use will be billed monthly.

Do members have a choice to use the AMR system?

No. TWACS meters will be installed on all Charles Mix Electric accounts. This is a system-wide AMR program, changing 100 percent of existing residential and commercial meters to AMR.

How will Charles Mix Electric read the meters?

The cooperative's computer will connect to the equipment in each substation through an Internet connection. A request to read one or more meters is sent over the power lines, and the AMR meter responds back with the meter reading(s). It takes just a few seconds for a single meter reading to return.

Will someone other than Charles Mix Electric be able to read the TWACS?

No. The TWACS AMR computer software is exclusively for CME and can only be read by the CME computer system. All billing calculations will be done at the Charles Mix Electric headquarters office.

How much is this going to cost the member?

There are no additional costs to the member to install the AMR meter. There is no rate increase anticipated in association with this project.

What are the cooperative's cost in implementation and maintenance of the AMR system?

The \$825,000 project is designed to not only benefit members with convenience and cost attributes, but to also increase the efficiency and safety of the Charles Mix Electric employees.

Will the rate be the same?

Yes, members will stay in the same rate class as in the past.

Will I need additional equipment?

No additional equipment is required. However, if customer-owned equipment is identified to be faulty or hazardous, suggestions will be made to aid you in correcting the problem.

What is the difference between the TWACS meter and an old meter?

The new meters are highly accurate electronic devices with a digital display and no moving parts. A TWACS communications module is installed allowing for two-way communications. This is compared to the old meters having a mechanical rotating disk driving lots of gears to register the readings.

The new meters still display the meter readings, allowing members to monitor their electric use if they wish. Also, accuracy of the new meters is much better than that of the old meters by a factor of 10.

What will the schedule be for meter changes?

Charles Mix Electric's members can expect to see the transition to the AMR system throughout 2009, with an expected completion in December. Although the Wagner substation customers will be the first to see the new meters installed, other customer types may be made a priority due to annual billing schedules. Otherwise, installation of meters will move from East to West across Charles Mix County.

Why is the installation scheduled in some areas before others?

Charles Mix Electric started at the Wagner substation because of it is close to the headquarters building in Lake Andes. As we learn how the system operates, short travel distances will allow CME employees to respond quickly should any quirks develop. The remaining order of installation is an orderly installation of the AMR meters.

Who will change the meters?

Steve Hasz, a retired meter technician from West Central Electric, and his wife Rita, have been contracted by Charles Mix Electric to change the meters. You can expect to see Steve's truck in your yard as he progresses across the county. CME employees also may be involved in the meter change.

Will I have to be home when the meter is changed?

No one is required to be at the location when the meter is changed since all meters are mounted in exterior locations.

Will a power outage occur when the meter is changed?

Yes, members will experience a very short disruption in electric service during the meter change. Steve or CME personnel will try to contact the member before changing the meter. In extreme situations, problems with member-owned equipment may result in a longer disruption of service.

How will I know when my meter has been changed?

When a meter is changed, a card will be placed on

the new meter or on the door of your residence. This will give the final reading from the old meter and a short explanation of what is to occur. The reading is for your records. The AMR will allow CME to read your meter from then on, and you will receive your bill by mail.

What if I have a separate heat meter?

The submeter (heat meter) will be changed at the same time as the main service meter. The discounted heat rate will remain the same and will be automatically calculated on your bill.

Since the meter is remotely read, does it have to remain accessible?

Yes. Reasonable access to equipment still must be maintained. This allows for members or cooperative personnel to either read or maintain the meter if necessary.

Will Charles Mix Electric continue to do service inspections?

Routine annual inspection of all meters and services will continue to look for safety hazards, theft or other problems.

Are the TWACS meters secure?

The TWACS meter display is visible for the member to check consumption. All other information and data stored in the meter is secure since the meter is sealed and readable only by the AMR system.

Can the electric service be remotely disconnected using AMR?

Yes, with the addition of a separate disconnect collar. This will allow the cooperative to remotely disconnect the service.

What information does the TWACS meter record?

The TWACS meters record kWh readings, date and time of energy usage, and the rate of energy use, also known as demand. The meter can identify backwards rotation, 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.

Will the TWACS module notify Charles Mix Electric when the power goes out?

Not at first since the meters speak only when spoken to. As technology evolves, it is expected that automatic outage reporting will be implemented. However, at this time, members will need to call Charles Mix Electric at 487-7321 or 1-800-208-8587 to report a power outage or emergency situations. Meters will record outages, blinks or other odd power situations to aid in determining power problems.

Can I still read the meter(s) on my property?

Yes, you will still be able to read the meter. You will round off the last number on the meter to coincide with the rate chart. However, keep in mind that Charles Mix Electric will be figuring the payment on the actual reading so you may see a discrepancy of a few cents.

How do I tell if my meter is “turning” if it is electronic?

The meter has a scrolling bar under the number display, mimicking a moving disc. The speed of the scrolling bar varies on electric use, slowly for low use, faster for higher use.

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

Electronic meters are more accurate than mechanical meters. Each TWACS meter installed by Charles Mix Electric has been tested and meets American National Standards Institute (ANSI) regulations. Contact us at 487-7321 or 800-208-8587 to discuss your billing concerns.

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