



## Outage management technologies improve reliability *By Tom Tate*

“The only things certain in life are death and taxes,” as the old saying goes. Well, we can add another to the list: power outages. An outage can range from annoying to dangerous, depending upon its timing and length.

Clinton County Electric Cooperative’s primary goal is to deliver the highest possible quality of electric service at the lowest possible price. Perhaps the key measure of quality in the eyes of members is the number of times their lights blink or go out.

Let’s talk a bit about how the grid is designed as a backdrop to how technology is improving reliability by reducing blinks and outages. Along the power lines that bring electricity to your home, Clinton County Electric installs protective devices in the form of fuses and reclosers (high-voltage circuit breakers). Fuses and reclosers serve the same purpose as the fuses and circuit breakers in your home.

A fuse is a one-shot device. When a fault occurs, the fuse blows and everyone downstream from it loses power. Reclosers are multi-shot devices, meaning they can operate a certain number of times before they stay open and an outage occurs. A common setting is what’s known as a triple-shot. Here’s how that works. A tree limb contacts the power lines and creates a fault. The recloser senses it and opens, creating the first blink.

Here’s where a recloser differs from your home circuit breaker. It waits a certain amount of a time (typically a

few seconds), then recloses to try and complete the circuit. If the fault is still there, it opens again. This creates the second blink. Triple-shot settings allow the device to reclose a third time and if the fault is still there, it stays open and the members downstream experience a power outage.

Blinks are a nuisance, but they eliminate a lot of extended outages by protecting wires and equipment from serious damage.

So, what kind of technology is improving service reliability? The Smart Grid is spawning an amazing array of equipment and software that are already improving reliability. When combined with field construction practices, like building multiple ways to feed power loads, the deployment of advanced metering systems (AMI), and outage management systems (OMS) the future of reliability is bright—pun intended.

Electric cooperatives are starting to use more of what are called Intelligent Electronic Devices. “Intelligent” basically means a cooperative can program the device to behave a certain way when a specific event occurs. It also means the cooperative can remotely command the device to take an action, either preprogrammed or ad hoc.

Eventually, there will be a power outage despite the best efforts of Clinton County Electric. For CCECI, that is where the outage management systems (OMS) can earn its keep. The OMS maps system data and meter locations

into a piece of software that models the electric grid. When a member on the grid reports loss of power, the OMS runs calculations to determine the exact location of the fault and the number of members impacted.

Now, the whole suite of systems your cooperative uses comes into play. The cooperative dispatcher can call out or redirect a crew to the exact location of the problem. A map of the outage and number of impacted members is generated and member service reps are notified that an outage is in progress. An outage map is also available on our website [www.cceci.com](http://www.cceci.com) to keep members informed of outages on the CCECI system.

The end result of all this technology is the minimization of outages and their length, plus more availability of up-to-date information for the consumer.

Mother Nature is a tough opponent, and it’s impossible to eliminate outages and blinks altogether. But with the way technology is advancing, we can expect to see some remarkable improvements.

Contact Clinton County Electric Cooperative at 800-526-7282 to learn more about outage notification systems.

*Tom Tate writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation’s 900-plus consumer-owned, not-for-profit electric cooperatives.*



# Considering Solar? Call us first!

As interest in “green” energy and ways to save money on utility bills continue to grow, some cooperative members may be considering the installation of a solar array.

Since these types of systems have the capability of returning electricity back to the electric grid, there are some major safety considerations to sort out before a system is installed.

Before deciding to buy a solar array, examine the economics to determine whether such a system will lower your monthly electricity costs. If you do decide to install a solar array, contact our office as early as possible in the process.

A CCECI representative will provide information on our interconnection process and policies, as well as answer any questions you may have. That way, you and your installer will have the information needed as you progress with your system.

*For more information on CCECI policies and requirements, please contact our office Monday through Friday, between 7 a.m. and 4 p.m. at 800-526-7282.*

# Sons and daughters of CCECI members awarded scholarships



Clinton County Electric Cooperative proudly offers two \$500 scholarships to senior students from Carlyle, Central, Christ Our Rock Lutheran, Mascoutah, Mater Dei and Wesclin High Schools. The following sons and daughters of Cooperative members were awarded \$500 scholarships this past May on behalf of Clinton County Electric Cooperative:

## **Carlyle High School:**

Kaelyn Johnson, daughter of Troy and Stephanie Johnson  
Benjamin Koopmann, son of Randy and Melissa Koopmann

## **Central High School:**

Gabrielle Garland, daughter of Bruce and Karen Garland  
Jack Strieker, son of Jeff and the late Alicia Strieker

## **Mascoutah High School:**

No applicants

## **Mater Dei Catholic High School:**

Drew Toeben, son of Mike and Dana Toeben  
Jacob Dumstorff, son of Brian and Lisa Dumstorff

## **Wesclin High School:**

Abigail Becherer, daughter of Terry and Angie Becherer

Cami Meddows,  
daughter of Dave  
and Lynn Meddows

## **Christ Our Rock Lutheran High School:**

Madeline Haake, daughter of Denny and Teresa Haake  
Madissen Torrence, daughter of Michael and Norma Torrence

*Congratulations to all of the sons and daughters of CCECI members who were awarded scholarships in 2017.*

## \$2,000 Thomas H. Moore Scholarship awarded

Claire Eggermann from Carlyle High School was one of nine recipients of a \$2,000 Thomas H. Moore IEC Memorial Scholarship. This scholarship program is designed to assist deserving students in the “electric cooperative family.” It is also a way for individuals to honor deceased members of the cooperative family through memorial gifts.

Five scholarships are awarded to high school seniors who are the sons or daughters of an Illinois electric cooperative member receiving service from the cooperative. A sixth scholarship, the Earl W. Struck Memorial Scholarship, will be awarded to a student who is the son or daughter of an Illinois electric cooperative employee or director. Three additional scholarships are reserved for students enrolling full-time at a two-year Illinois community college who are the sons or daughters of Illinois electric cooperative members, employees or directors.

Claire competed with 242 other students from across the state of Illinois. Candidates were judged on grade-point average, college entrance exam scores, work and volunteer experience, school and civic activities, and a short essay demonstrating their knowledge of electric cooperatives.



*Clinton County Electric Cooperative President Bob Kroeger is pictured with Claire Eggermann, recipient of the 2017 Thomas H. Moore \$2,000 scholarship.*

# CCECI Sparks Learning

On May 16, 2017, Apprentice Linemen Jacob Haselhorst and Justin Hubert and Foreman Mike Faust were invited by the Mascoutah Fire Department to present a Live Line Safety Demonstration as part of their monthly training. The demo prompted great discussion regarding safety of the public, emergency personnel and linemen.



The Cooperative Office will be closed Tuesday, July 4, 2017 in observance of Independence Day and Monday, September 4, 2017 in observance of Labor Day. Although the office will be closed, view your account information and pay your bill 24 hours a day, 7 days a week by visiting our website [www.cceci.com](http://www.cceci.com) or by calling 800-526-7282.

