

### Tim Stewart, CEO/Manager

## **GRID RESILIENCY AND** POWER RESTORATION



**¬** arlier this year (April 2021) I talked about the February polar vortex and ✓ the events that surrounded the Texas blackouts, market conditions of the Electric

Reliability Council of Texas (ERCOT), and the Mid-continent Independent System Operator (MISO) and grid reliability.

This month, as we are in the midst of summer seasonal storms, I would like to talk about grid resiliency relative to storm events and how power restoration takes place.

Resiliency of the grid is one of the most popular concepts being talked about in the electric industry today. Resiliency is many things—it's reliability in your electric service, it's our ability to efficiently restore your power, it's being able to meet the demands of new technology, and it's how we serve you with various generation sources without skipping a beat. Ultimately, resilience is how we deliver on our promise to improve the quality of life for our member-owners.

When it comes to having a resilient electric grid, it begins with a system that is designed and built to withstand high winds, powerful storms, cybersecurity threats, and other disruptions that could result in outages. A resilient grid is also flexible and adaptable by allowing different

In the dictionary, resilience is defined as "the ability to bounce back, recover quickly and go back into shape or position after being stretched." When it comes to providing our member-owners with resilient service, this is what we work toward, day in and day out!

types of generation—such as wind, solar, coal, and hydro to seamlessly work together to provide you with safe and reliable power. The way our systems react to advancements in technology-from demand response investments to serving the needs of electric vehicles—all factor into the resilience of our grid.

Resiliency is a 24/7, 365-days-a-year task. Whether it's the power lines, substations, or generation facilities on our grid, it takes proactive maintenance and investment to keep them running smoothly. Consider Texas: Lack of weatherization preparedness contributed to the events of February 2021.

In a similar way to how we maintain our vehicles with regular oil changes, inspections, and tire rotations, a grid must also be properly maintained. Throughout the year, we regularly conduct pole and line inspections and perform a host of maintenance programs like breaker maintenance and vegetation management. Our goal is to find a problem before it becomes one. For example, if we find a weak pole that has damage, we replace that pole. Doing so ensures that pole is as strong—or as resilient—as it can be.

Living in Wisconsin, we know that significant power

outages can occur, especially as we enter spring and summer storm season. We know things can and do occur; however, we have confidence in the resiliency of our system to recover from the situation with as little disruption as possible.

The following article explains how power is restored in the event of an outage:

### **Outage Restoration Priority**

I would like to review how power is restored after a widespread storm. This can also be found on our web site at www.cecoop.com. Damage can occur to transmission lines, substations, distribution lines, and your secondary service lines despite our best efforts. When this happens, our priority is to safely restore power to as many members as possible in the shortest amount of time. Transmission lines are handled first. These lines transmit power to distribution substations. If the substation can come back on, power can be restored to thousands at one time.

Next, crews inspect substations to determine if the problem starts there, or if there could be an issue down the line. If the source of the problem is at the substation, power can be restored to hundreds of members.

Next, crews check the distribution feeder lines that deliver power to homes and businesses. There are three-phase lines that deliver power to various line sections. Once these are repaired, power is then restored to even more people. If you continue to experience an outage, there may be damage to a line section or tap line. This is a line that comes off the three-

phase feeder line that energizes your transformer.

If you still don't have power, the service line between a transformer and your home or business may need to be repaired. Always call to report a power outage, which helps our line crews isolate these individuals.

## **OUTAGE RESTORATION PRIORITIES** Transmission Substation Feed Lines Tap Lines

### **Text Messaging & Notifications**

Clark Electric Cooperative is pleased to offer an outage text messaging/notification program. The goal is to help keep you informed via text messaging to your mobile device regarding an outage status and other information. It is FREE and easy to do. Signing up for text messaging takes just six

- 1. Under News/Events you will see a link that says outage text messaging and notifications—sign up here. Click
- 2. This will take you to the sign-up page. You can watch a



tutorial on how to sign up (**strongly recommended**) or you can start the process by clicking Introducing Outage Notifications.

- 3. End user terms and conditions of use comes up. Click Accept to continue.
- 4. The site will then ask you for your account and mobile phone number. Input those. **IMPORTANT:** Your phone number must be on file in order to sign up. If your phone number is not on file you will NOT be able to continue. You can email, call, or send us that information.
- 5. A verification code will be sent to your phone. Input that code
- Once inside the portal will bring up account summary. Click the blue pencil beside your account and follow instructions.

Once you're signed up for the service, just text Outage to 55050 to report your outage. Once your outage is restored, you will receive a text.

If you have any questions please contact our office at 715-267-6188.

### **Operating Your Generator Safely**

Clark Electric Cooperative cannot guarantee 100% power 100% of the time. So, when the electricity goes out, generators can help you get through until power is restored. However, before ever starting a generator, it is vital that you have educated yourself on how to use one safely.

There are two types of generators for homeowners to choose from: standby and portable. Standby generators are installed directly to the house and are typically powered by natural gas or propane. These generators start automatically when the power goes out.

A portable generator is usually gas powered and is movable. You can power appliances by plugging them into it. Your generator should have more output than the wattage of the electronics you will plug into it. This way, the generator will be able to create the extra electricity it takes for the initial power surge. Make sure there is nothing plugged into the generator when turning it on.

When you refuel a generator, make sure the engine is cool to prevent a fire, should the tank overflow. Keep children and pets away from the generator, which could burn them.

Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary during moist conditions. Protect the generator by operating it under an open, canopy-like structure and on a dry surface where water cannot form puddles or drain under it.

Carbon monoxide fumes emitted by the gasoline engine on the generator can be deadly. Always operate your portable generator outdoors at least 10 feet from your home.

If you are not careful with the installation of a portable or standby generator, you can put the lives of others in danger away from your home because of backfeed—a situation where a generator is feeding electricity back through your electrical system and meter into the power lines. To prevent backfeed, standby generators should have a transfer safety switch installed by a professional. Portable generators should never

be plugged directly into a home outlet or electrical system; use an extension cord to plug appliances into an outlet on the generator for power.

It is recommended that a generator be operated once a month for 10 minutes to ensure it is running properly. Store a generator in an easily accessible, weatherproof area. Have enough fuel for at least 24 hours in case of a power outage.

For more safety information, visit SafeElectricity.org.

### **Myths of Downed Power Lines**

Have you ever wondered why a bird can sit on a live wire, or what you should do if a power line is on the ground? Here are some Q-and-As to clear up some common misconceptions concerning power lines:

What do I do if I see a downed power line? Vacate the area. Call 9-1-1 to report. Do not return to the area until you are given the go-ahead by authorities.

Can I tell from looking (or listening) if a downed power line is still live? Absolutely not. A live wire may not spark or arc and it may not make any noise at all (although it could).

Where might downed power lines be? A downed power line might be in the street or ditch or field after a bad storm or car accident. It could also be lurking in flood waters or under debris, trees, or other objects after a severe storm.

If a line is on the ground, is it dead? Once a line is on the ground, it is not automatically dead, even if the power is off in your area. There's a good chance the line is still energized, which not only means you should not touch it, it also means the surrounding ground and any metal objects nearby could be energized and extremely dangerous, even deadly.

Why might a power line be down or damaged? A car accident may cause a line to be hanging down or on the ground; severe weather could damage a pole or line; or in some cases the cause could be a storm-damaged tree or a hungry squirrel.

Why can a bird sit on a power line and not be hurt? Doesn't that mean the line is insulated? No. Lines are sometimes coated for protection against the elements but still deadly upon contact. A bird or other critter can sit on a power line all day happy as a lark because there is no path to ground. If the animal were to come in contact with the utility pole or other grounded source, it would be electrocuted, just as a person would be under the same circumstances.

Do different kinds of utility lines look different? Perhaps, but for the most part, the non-utility professional cannot know what kind of line it is and what it carries (electricity, phone service, cable TV, and so on) just by looking. You also can't tell how much voltage it is carrying by its appearance.

What if my car comes in contact with a downed power line? Do not get out. Do not try to drive over it. Call 9-1-1 and wait for utility personnel to de-energize the line. If you smell gas or if there is a fire, exit your car with a solid jump landing on both feet (but don't touch the car at the same time) and DO NOT WALK, but hop away.

Can I help someone who has been in an accident involving a downed power line? No. Do not go near the scene and warn others not to do so. A person running near an energized area could get electrocuted.



# **UNDERGROUND EQUIPMENT CLEARANCES**

■ ach year we contract with Karcz Utility Services to complete inspections and maintenance to our underground equipment ✓ like transformers or junction boxes. To some, such equipment—or perhaps better known as "the green metal box" you may see on your property or along roadways—is an eyesore that you may be tempted to conceal. However, having the proper clearance around our equipment is extremely important to ensure we can continue to provide safe and reliable service to our members.

As Karcz crews inspect and maintain our facilities, they often face the challenge of not being able to access our equipment. Many members want to beautify the equipment on their property, but those type of enhancements restrict us from doing our job. Whether we are updating our equipment or we need to restore service during a power outage, we need to be able to access our equipment.

Examples of landscaping obstructions include:

- Fences
- Flower beds
- Trees
- Retaining

- Trellises
- Shrubs
- Decks
- walls

To make sure we have the proper clearances for our equipment, leave at least 12 feet from the front (side with the lock) and four feet on all other sides of the ground-mounted equipment clear. If crews come across obstructions, they have the right to remove them or work will be postponed until obstructions have been removed. This means that if there is a power outage and we need to fix the problem in the transformer but there is a fence built around it, the member would need to relocate the fence before we'd be able to restore the outage.



Before doing any digging for yard work or landscaping, call Diggers Hotline at 811. They will come to your property and locate any utility underground facilities for free.

### What not to do:











### DAIRY FARM REWIRING LOAN AND GRANT PROGRAM

Many agricultural facilities are aging, and reinvestment in them has been made more difficult due to low milk prices. Wisconsin's electric cooperatives have created a farm re-wiring financial assistance program for dairy producers.

Dairy farmers who are members of electric cooperatives can apply to their local co-op for a cost-sharing package to re-wire their existing agricultural facilities to meet current electrical code standards. (New construction is not eligible.)

This process involves a pre-program inspection performed by a state-certified electrical inspector (which is provided by your cooperative), and an application to the cooperative for up to \$6,000 (or 20 percent) in grant funds and up to

\$24,000 (or 80 percent) in low-interest loan funds. Farmers have five years to repay the loans.

The work must be completed by a master electrician licensed by the State of Wisconsin. Before final payment is made for the re-wiring project, the work must pass a final electrical inspection performed by the provided state-certified electrical inspector.

Wisconsin electric cooperatives are offering this financial assistance in order to protect the safety of their members and help preserve and extend the life of farmers' important assets. Clark Electric encourages its members with operating dairy farms to participate in the Safety First Wiring Program. Please contact our Operations Department for additional information on this program.

Clark Electric
Cooperative will be
closed Monday, July 5.
Have a safe and happy
holiday!

### Energy Efficiency Tip of the Month

During summer months, run large appliances that emit heat (like clothes dryers and dishwashers) during the evening when it's cooler. This will minimize indoor heat during the day when outdoor temperatures are higher.

Source: www.energy.gov



Forget wall-mounted thermostats that can be difficult to program or operate. Daikin systems feature built-in intelligence that allows individual control with the ability to automatically maintain preferences. These systems make subtle and continuous adjustments to ensure your home stays at a constant and comfortable temperature at the touch of a button.



Contact Greg for all of your heating and cooling needs.

### **CLARK ELECTRIC APPLIANCE & SATELLITE**

1209 West Dall-Berg Road, Greenwood

From Greenwood, west on CTH G, south on River Road, and west on Dall-Berg Road 866-279-6544 or 715-267-6544 • Hours: M-F 8 a.m.-4:30 p.m.



### Tim Stewart, CEO/Manager

1209 West Dall-Berg Road, P.O. Box 190, Greenwood, WI 54437 email us at info@cecoop.com or tnelson01@cecoop.com www.cecoop.com



HOURS: Monday-Friday 8 a.m. to 4:30 p.m.