GRID RESILIENCY AND POWER RESTORATION

Clark Electric Cooperative
Your Touchstone Energy® Partner

Tim Stewart,
CEO/Manager

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 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.

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!

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. With thousands of consumers without power for months, the lack of resiliency in Puerto Rico's power grid wasn't solely caused by hurricane damage; it was the result of years of neglect in taking care of their system and preparing for a worst-case scenario.

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 website as well as the July 2019 edition of the magazine. 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.

Please remember, that in general terms the lines that will get the most services energized will be repaired first.

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. 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. Be sure to 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 standby generator in an easily accessible, weatherproof area. Have enough fuel for at least 24 hours in case of a power outage.

For more electrical 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.

STAY INFORMED OF OUTAGES WITH TEXT MESSAGING/NOTIFICATIONS

Clark Electric Cooperative is pleased to offer a new 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.

Sign Up for Text Messaging

Six Easy Steps

1. Go to our web site at www.cecoop.com. Under News/ Events you will see a link that says outage text messaging and notifications—sign up here. Click that link.
2. This will take you to the sign-up page. You can watch a tutorial on how to sign up **(strongly recommended)** or 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.
6. Once inside the portal will bring up account summary. Click the blue pencil beside your account and follow instructions.

Texting an Outage

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.

FOR SALE BY SEALED BIDS

2003 Chevy Impala 4 door, 3.8 liter V-6, automatic transmission, pw, pl, air conditioning, cruise control, 198,985 miles. Bids to start no less than $1,500.

Clark Electric Cooperative reserves the right to reject any and all bids. Car is being sold as is with no warranty implied.

2005 Chevy Venture LT, 4 door, 7 passenger, 3.4 liter V-6, automatic transmission, pw, pl, air conditioning, cruise control, 172,312 miles. Bids to start no less than $1,500.

Clark Electric Cooperative reserves the right to reject any and all bids. Van is being sold as is with no warranty implied.

2013 Dodge Quad Cab 4X4, 4.7 liter V-8, automatic transmission, pw, pl, air conditioning, cruise control, Ram Boxes & tonneau cover, 178,985 miles. Bids to start at no less than $6,000.

Clark Electric Cooperative reserves the right to reject any and all bids. Truck is being sold as is with no warranty implied.

2009 Dodge 2500 Quad Cab 4X4 5.7 liter Hemi V-8, automatic transmission, pw, pl, air conditioning, cruise control, 214,250 miles. Bids to start no less than $4,500.

Clark Electric Cooperative reserves the right to reject any and all bids. Truck is being sold as is with no warranty implied.

2006 Ford F750 4X4 with Versa Lift 50 foot material handling basket, 7.2 liter Caterpillar engine, Allison automatic transmission, pw, pl, air conditioning, 234,312 miles. Bids to start no less than $12,000.

Clark Electric Cooperative reserves the right to reject any and all bids. Truck is being sold as is with no warranty implied.

2009 Chevy Ex-cab 4X4, 5.3 liter V-8, automatic transmission, pw, pl, air conditioning, cruise control, 274,890 miles. Bids to start no less than $3,000.

Clark Electric Cooperative reserves the right to reject any and all bids. Truck is being sold as is with no warranty implied.

Interested parties should send sealed bids to Clark Electric Cooperative, P.O. Box 190, Greenwood, WI 54437, or deliver in person to the main office at 1209 W Dall-Berg Rd., Greenwood. (Attention Mike Ruff) Bids will be accepted until 4 p.m. Friday August 21, 2020. Vehicles can be seen across from the Clark Electric Cooperative office along Dall-Berg Rd., Greenwood. Questions or inquiries should be directed to Mike Ruff, director of operations.

While it may seem like a good idea to cover that "big green box" in your yard with pretty shrubs, like the one at left, this restricts access to the box and creates a safety hazard. Keep the boxes—known as transformers—clear of obstructions, like the one at right.

BEAUTIFY YOUR YARD, NOT UTILITY EQUIPMENT, THIS SUMMER

Green or gray utility boxes, known as transformers, are part of the supply chain that helps provide power to your neighborhood.

What are the boxes for? Their job is to step down high-voltage electricity to a lower voltage needed for the underground wires supplying power to the lights and appliances in homes.

Please do not paint, enhance, block, or otherwise obstruct these transformers. By respecting all utility equipment, including meters and transformers, you can help keep the power on and your local utility workers safe.

As you beautify your yard this spring, Clark Electric Cooperative and Safe Electricity remind you of these safety tips:

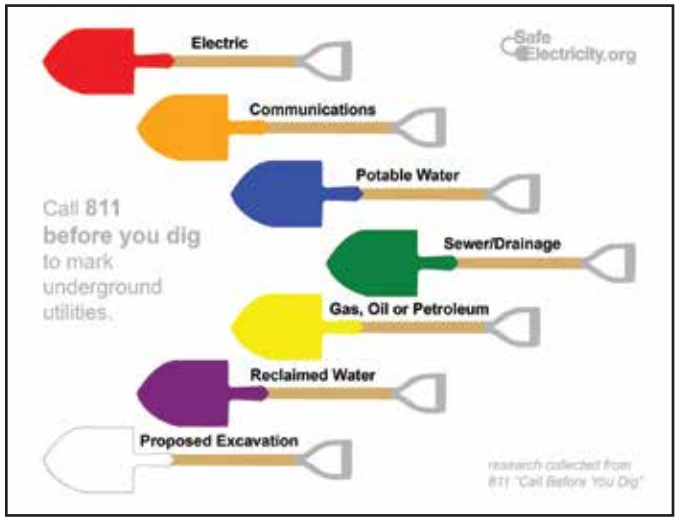
- Do not plant shrubs and trees close to transformers or other utility equipment. Limiting or restricting access to the transformer in your yard could delay restoration work during an outage and create a serious safety hazard. We need at least 10 feet of clearance in front of the transformer (the side that is padlocked), as well as four feet of clearance on the other three sides.

- Contact us if the transformer becomes unlocked or if it or any other type of utility equipment appears to be damaged.

- Call 8-1-1 prior to digging around a transformer and respect the clearance requirements noted earlier. If you dig near a transformer even beyond the clearance requirements, you could inadvertently hit a live underground wire. Always call 8-1-1 prior to any digging.

- Keep a clear path to the transformer. Although the transformer seems like it is in "your yard," it is technically on an easement, and our workers need clear access to it to maintain equipment and keep power running smoothly.

- Always teach children they should not sit on, open, or play around the big green boxes.



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

Clark Electric Cooperative
Your Touchstone Energy® Partner