



Tim Stewart, CEO/Manager

# GRID RESILIENCY AND POWER RESTORATION



s we are in the midst of summer seasonal storms, I would like to talk about grid corm events and seasonal storms.

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 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.

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 memberowners with resilient service, this is what we work toward—day in and day out!

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.

For example, the cooperative experienced an extreme storm event with strong winds and a tornado on May 21, 2024. The first call came in at 7:10 p.m., with restoral by 10:10 p.m. on May 22,









2024. We had seven substations off due to loss of transmission to the substation and numerous distribution feeders and tap lines off, primarily due to trees. We had approximately 4,800 members off at any one time, and a total of over 8,000 members were affected by the event.

I have been asked many times how power outages are restored. I would like to review how power restoration takes place. The following article explains how power is restored in the event of an outage after a widespread storm.

## Outage Restoration Priority

This can also be found on our website at www.cecoop.com. Damage can occur to transmission lines, substations, distribution lines, and your secondary service lines despite our best

#### OUTAGE RESTORATION PRIORITIES

Transmission

Substation

Feed Lines

Tap Lines

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

efforts. When

down the line. If the source of the problem is at the substation, power can be restored to hundreds of members.

there, or if there could be an issue

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 threephase 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 Text Messaging & Notifications

Clark Electric 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 easy steps:

1. On our website, under Outage and then Report an Outage, you will see a link that says outage text messaging and notifications—sign up here. Click that link.

- 2. End user terms and conditions of use comes up. Click Accept to continue.
- 3. 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.
- 4. 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.

# **HELP KEEP RATES DOWN**

# Watch & listen for peak alerts

There may be days when you hear oa PEAK ALERT on the radio. When this happens, please shift your flexible electricity usage to after 6 p.m.

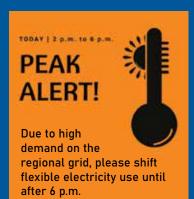
The Peak Alert will be issued due to high demand for electricity on the regional grid. Clark Electric Cooperative, along with other local Touchstone Energy Cooperatives, will be calling for extra electricity conservation efforts between 2 and 6 p.m. Elevated peak demand leads to higher power costs.

Here are a few things you can do: Please avoid using multiple large appliances at the same time, and wait until after 6 p.m. to run your dishwasher or washing machine. Use your grill to cook dinner outside and have a family picnic in the yard. Set your thermostat a few degrees higher.

As a cooperative member, you are part of something bigger. Every little effort you make benefits

all the members of Clark Electric Cooperative and helps to keep your electricity rates stable and affordable.

When you hear PEAK ALERT please remember to shift flexible electricity use to 6 p.m. or later.





## HELP US STABILIZE COSTS BY DOING THE SUMMER SHIFT

The Summer Shift supports stable rates by helping members use less electricity during times of high demand. Anyone can participate in the Summer Shift by "shifting" non-essential energy use to before 11 a.m. or after 7 p.m., during summer weekdays (June through August). That afternoon window of time is usually when the demand for electricity is at its peak. With a successful Summer Shift program, the

cooperative's wholesale power provider, Dairyland Power Cooperative, purchases less electricity during times of peak demand and high prices. Reducing the price paid for our wholesale power contributes to stable retail electricity rates in the long term.

Dairyland works with its 24 member cooperatives, including Clark Electric Cooperative, to cover all our electricity needs every hour of every day of the year. By joining with other cooperatives, the benefit of the Summer Shift is multiplied. To be fair: Just doing the Summer Shift may not mean a reduction in actual electricity used because members will still run a dishwasher or take a shower earlier or later in the day. But members looking for a few power tips can not only do the Summer Shift, but also save energy and improve inhome comfort this summer.

# UNDERSTANDING DEMAND

As more appliances in your home run at the same time, your demand for power increases. The members in the following example use the same amout of energy to run their appliances, but each member is putting a different demand on the electric grid.



Megan cooks her food for one hour, then runs the dishwasher the next hour.



Jason runs the dishwasher during the same hour he cooks his food.



1.8kW

DEMAND

m 8pm

Megan:

Energy: 3.3 KWh Demand 1.8 kW Average Appliance Use (60 min runtime) Range: 1500 Watts = 1.5kWh/1.5kW Dishwasher: 1800 Watts = 1.8kWh/1.8kW Jason: Energy: 3.3 KWh Demand 3.3 kW

### Discover Power Tips

- Cook outdoors to avoid additional heat from the oven.
- Close blinds to help keep the house cool; use a ceiling or table fan to circulate air.
- Shift laundry to before 11 a.m. or after 7 p.m., and air-dry clothes instead of putting them in the dryer.
- Catch a summer breeze! Line dry your clothes.

- Make sure chicken is the only thing crispy this summer. Use an air fryer instead of your oven.
- Utilize an ENERGY STAR dishwasher over hand washing to conserve water and energy.
- Run the dishwasher after 7 p.m. Open the door to let dishes air dry overnight.
- Create a schedule for your smart thermostat and lighting to minimize energy use between 11 a.m. and 7 p.m.
- Bump up the thermostat setting a few degrees on summer weekdays.

- Charge electric vehicles overnight (after 9 p.m.).
- Adjust the water heater to no higher than 120 degrees.

Before 11 a.m. and after 7 p.m.: When we all work together to shift non-essential electricity use to off-peak times, we can all help keep rates stable. Utilize the power tips shared above to help save energy and save money. Reach out to your trusted energy advisor at your Clark Electric Cooperative for more information.

# **CLARK ELECTRIC CREW RESPONDS TO MUTUAL AID REQUEST**

Being part of a cooperative comes with numerous benefits, including Principle #6 Cooperation Among Cooperatives.

ROPE, or Restoration Of Power in an Emergency, is a very unique program of Cooperatives helping Cooperatives. When a major storm rolls through a cooperative's service territory and causes extensive damage to its distribution system, that cooperative can request mutual aid and activate the ROPE program. Needed personnel and equipment from unaffected cooperatives travel to the affected area to help restore power.

On May 25, 2024, a severe spring storm heavily impacted Washington Island Electric Cooperative's service territory. According to the National Weather Service, the EF-1 tornado had wind speeds of 90 MPH and was on the ground for 2.5 miles, cutting a swath of damage 50 feet wide from Detroit Harbor to Jackson Harbor, but General Manager Robert Cornell says the

damage was much longer and wider than that.

In response, the ROPE program was activated, and Wisconsin cooperatives, including Clark Electric, came forward to answer the call for help.

Linemen Scott Bailen and Jesse Friedenfels headed to Washington Island Electric Cooperative to assist in restoring power to the members.

Clark Electric Cooperative has sent crews to a number of other cooperatives in recent years including Eau Claire Energy, Clay Electric in Keystone Heights, Florida, Bayfield Electric, Barron Electric, Oconto Electric, and Washington St. Tammany Electric Cooperative in Franklinton, Louisiana, after Hurricane Katrina.

While Scott and Jesse volunteered to respond to the latest call for help, every one of our linemen at Clark Electric Cooperative stands ready to assist other cooperatives through the ROPE Program.



Clark Electric linemen Scott Bailen and Jesse Friedenfels traveled to Washington Island in May to help restore power after a tornado caused widespread damage.



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Office Hours: 7:30 a.m. – 4:00 p.m.