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Utilize a Smart Thermostat

Safely Use an Extension Cord

Contact CEC During the Holidays

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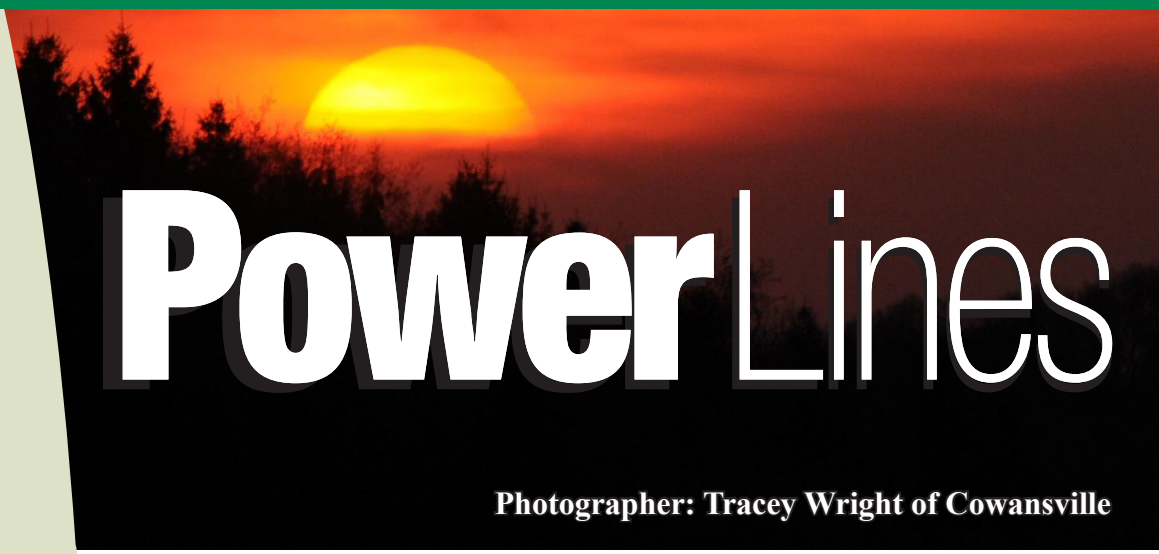
PowerLines



Photographer: Tracey Wright of Cowansville

What is Grid Resiliency?

by Matthew Boshaw, CEO & General Manager

I like to write articles that inform our members about issues in the electric utility business. My counterparts at other cooperatives do the same. When I come across an article that one of my colleagues has written that I think is particularly informative, I steal it for the benefit of our members. This article on grid resiliency is one of those thefts — with the permission of the original author, of course.

Resiliency of the power grid is one of the most popular concepts being talked about in the electric industry today. This concept recently made headlines in the wake of Hurricanes Irma and Maria (in 2017), which caused extraordinary damage to Puerto Rico's electric grid resulting in the longest sustained outage in U.S. history. "Lack of resilience" became the go-to phrase to describe Puerto Rico's grid.

Resiliency is many things — it is reliability in your electric service, it is our ability to efficiently restore your power, it is being able to meet the demands of new technology, and it is how we serve you with various integrated generation sources. Ultimately, resilience is how we deliver on our promise to maintain and even improve the quality of life for our members.

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, seemingly limitless trees, cybersecurity threats, and other disruptions that could result in outages. A resilient grid is also flexible and adaptable by allowing different types of generation to seamlessly work together to provide you with safe and reliable power. Recently, this is one of the more common uses of the word resilience

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"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."

Matt Boshaw, CEO & General Manager

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as it pertains to electric grids. The ability of what has historically been called baseload generation to provide resilience to our power grid is significant. These resources may best be described as schedulable, or available to increase or decrease supply as demand dictates. Some of the renewable generation sources don't support the same level of flexibility and therefore offer challenges when discussing resiliency.

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 apparently the result of years of neglect in taking care of their system and preparing for a worst-case scenario.

The storm systems that have hit our service territory this year caused the Public Utility Commission (PUC) to review maintenance practices of investor-owned utilities due to the slow recovery of electric service. Our territory, however, is entwined with these investor-owned utilities, and sometimes power outage causes are beyond our delivery point and our control. Some electric lines stretch through different utilities, so, for example, a tree down on a transmission line outside of our service territory could cause an outage beyond our control at any of our delivery points and effect thousands of homes and businesses.

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

So how is Central Electric Cooperative (CEC) keeping its own grid resilient? One way we do so is by taking proactive measures like regularly trimming trees in the power line rights-of-way, physically inspecting our poles, using specialized tools and equipment to isolate and identify weak or loose connections, and embarking on planned maintenance schedules of equipment like transformers, regulators, and reclosers. As trees are by far our largest cause of service interruption, we have dedicated increasing resources and efforts to clear our rights-of-way more effectively. By proactively finding the hanging branch, the weakened insulator that was perhaps struck by lightning, or the bird or insect damaged wood pole, we're preventing an outage.

And those annoying power blinks that sometimes occur, causing you to have to reset your blinking clocks? As frustrating as they may be, they do serve a useful purpose for our grid. The blink in power (which is a brief, momentary power outage) allows a fault to clear

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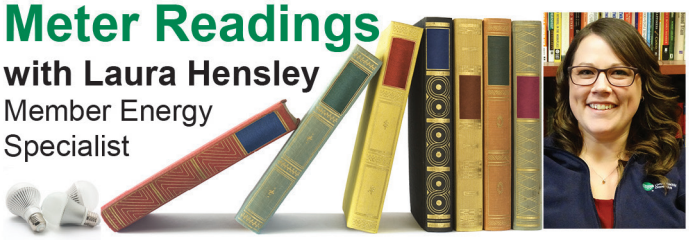
through the line, whether it was from a tree branch contacting the line or an animal contact. Once that fault has cleared, the power comes back on after that momentary blink. This technology allows the blink to happen up to three times before deciding the fault has not cleared and the power has to stay off until a line crew can troubleshoot the problem. Without these blinks, we would be dealing with an outage for an hour or two. We analyze reports of where blinks have occurred, and we dispatch someone to patrol the area, to find a potential future outage-causing issue.

In a similar way to how you maintain your vehicles with regular oil changes, inspections, and tire rotations, a grid must also be properly maintained. In doing so, our goal is to find the problem before it becomes one. We strive to be proactive, instead of reactive, when storms strike.

A special thanks to Chris Reese, CEO of Sussex Rural Electric Cooperative in New Jersey for allowing me to share his article with you.

Meter Readings

with Laura Hensley
Member Energy Specialist



Everything in our home is getting "smarter" these days and it can be overwhelming to keep up. The list of smart devices is endless – but one device I would propose families take a good look at would be a smart thermostat. This takes the idea of a programmable thermostat, which you can use to manually schedule temperature settings, a step further. A smart thermostat is connected to your home's Wi-Fi to enable you to do so much more.

Not only does a smart thermostat offer an appealing digital display, but it also offers convenient access via your computer or smart phone. This means you can control your home's temperature when you aren't even there. Smart thermostats are capable of learning your habits over time and can automatically make adjustments to help you become more efficient. Some added perks include insightful reporting about your family's energy usage and integration with other smart devices.

Smart Thermostats

A smart thermostat will cost you between $130 and $250 to purchase and should be installed by a professional. There are a number of good options. Some of the current top sellers – and best rated units – include ecobee3, Nest Thermostat E, and Honeywell Lyric. You should do your research so the unit you purchase works best with your heating and cooling systems, and integrates with the smart devices you currently own.

A smart thermostat offers a way to become uniquely involved in energy efficiency.

To Celebrate the Holidays CEC will be Closed:

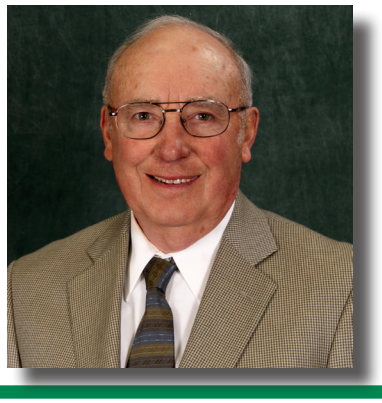
- Nov. 22 for Thanksgiving (normal hours resume Nov. 23).
- Dec. 24 at noon in observance of Christmas Eve.
- Dec. 25 in observance of Christmas Day (normal hours resume Dec. 26).
- Dec. 31 at noon in observance of New Year's Eve.
- Jan. 1 in observance of New Year's Day (normal hours resume Jan. 2).

In Memory of ...

William J. Eichner

May 18, 1939 — Oct. 5, 2018

Central Electric Cooperative Board of Directors
Butler County Representative
2010 — 2018



SAFETY MATTERS

Give Your Extension Cord Some Respect

Next time you reach for an extension cord, what should you be thinking? You should be thinking about inspecting it before you use it. Make sure it doesn't have any signs of wear like cracks or fraying. And if you can't remember when you purchased it, it's probably time to replace it.

CEC offers additional tips to keep you and your family safe while using extension cords.

Make sure:

- You never try to plug a three-pronged cord into a two-slotted outlet. If you have grounded outlets (with three slots), it's time to upgrade to a three-pronged cord.
- The plug is fully inserted into the extension cord; unplug when not in use.
- You use the cord temporarily; have permanent wiring installed by an electrician if use is long term.
- The extension cord is certified by an independent testing laboratory.
- Cords used outdoors are plugged into a GFCI outlet.
- You store the cords indoors when not in use.

Conversely:

- NEVER plug major appliances, such as a window air conditioner or refrigerator into an extension cord ill-equipped for the job. Commonplace household extension cords (those that appear thin and flat and are often inexpensive) and power strips cannot handle heavy loads.
- Never cut the bottom lone prong off to fit in a two prong receptacle. This could create a shock hazard.
- DON'T stretch an extension cord.
- DON'T place cords in walkways where people could trip over them.
- DON'T use an indoor-rated cord outdoors.
- DON'T use them near water sources (pools, sprinklers, puddles).
- DON'T "string" or lengthen cords by plugging one extension cord into another.
- DON'T overheat or overload an extension cord, place under rugs in high-traffic areas, or drive over one outdoors.

Don't take your extension cords for granted. Inspect them and take care when using them.

CEC's 81st Annual Meeting

CEC conducted its 81st Annual Meeting on Aug. 24 at Whitehall Camp and Conference Center near Emlenton. During this meeting, our members re-elected Nancy Lendyak of Armstrong County and William Eichner of Butler County to the board of directors.

Over 1,000 people attended the event. Kentucky Fried Chicken catered the dinner and Hazlett Tree Service donated bottled water. Keep Off the Grass provided entertainment and Enhanced Visual Aerial Solutions offered information and demonstrations with drones.

The meeting opened with CEC's Stacey Bechtel singing the National Anthem. William Blum of Shippenville and Mitchell Mahle of Clarion won the $100 bill credits; Adam Miner of East Brady won the $50 bill credit; and two children who attended won backpacks full of school supplies — among other prizes.

After the annual meeting, the board of directors elected officers Jody Weaver, board president; Kenneth Durrett, vice president; and Althea Smith; secretary/treasurer.

Subsequent to the annual meeting and election, William Eichner passed away after a brief illness. Our deepest condolences go out to his family and friends.

CEC's Board of Directors

2018-2019 Member Aware Advisory Committee (MAAC)

Recipe of the Month

Easy Pecan Rolls

Ingredients:

- 12 frozen dinner rolls (Rhodes frozen Texas Rolls)
- 3 ounce box of butterscotch pudding
- 1 cup margarine
- 1 cup brown sugar
- 2 teaspoons cinnamon

Directions: Grease a 9 x 13 pan. Place dinner rolls in pan, spaced apart. Sprinkle pudding mix over rolls. In a separate bowl, melt margarine. Mix with brown sugar and cinnamon. Pour over rolls. Cut a sheet of waxed paper to fit pan and spray with cooking spray. Place spray side down on rolls to prevent sticking. Cover with tea towel and place on counter overnight or 4-5 hours for rolls to rise. Remove waxed paper and towel after rolls have risen and bake at 350 (325 for glass dish) for 30 minutes. Let them cool 10 minutes, then turn onto serving plate. Enjoy!

Thank you Susan Ritchey for submitting this recipe!

Send in your recipes to be shared today!

Send Recipes to: Renee Tritten at rtritten@central.coop or mail to CEC, P.O. Box 329, Parker, PA 16049

CEC Management Team

Matthew P. Boshaw
CEO & General Manager

Dennis W. Beggs
Director of Finance and Accounting/CFO

Stephanie Deal
Director of Human Resources

Lisa A. Hoover
Director of Member Services

Christopher W. Kossman
Director of Information Technology

Fred E. Terwilliger
Assistant General Manager/COO

Read Power Lines and Win!

Last Issue's Winner:
Ethel Peterson of Kennerdell
Last Issue's E-Winner:
Kellar Smith of Petrolia

Read Power Lines and win a $25 credit on your monthly electric bill by completing and returning the quiz below. You can also have a chance at another $25 bill credit by submitting a quiz online at www.central.coop.

If you don't have access to the Internet, indicate that on the quiz and we'll also enter you in the online drawing. Just complete and enclose the quiz and personal information below and return it with your monthly payment.

1. True or False: It's safe to "string" or lengthen cords by plugging one extension cord into another.
Answer:_____

2. True or False: A blink in power allows a fault to clear through the line, whether it was from a tree branch contacting the line or an animal contact.
Answer:_____

3. True or False: Smart thermostats let you control your home's temperature when you aren't there.
Answer:_____

How are we doing? (no wrong answer)

_____

_____

_____

_____

Name:_____

_____

Phone:_____ **Acct. #:**_____

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A Touchstone Energy® Cooperative
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