MONROE ELECTRIC NEWS
Waterloo, Illinois • 618.939.7171 • 800.757.7433
Your Touchstone Energy® Cooperative

Alan W. Wattles
Across The President's Desk

What is the power grid and how does it work?

When people go without power during widespread outages, it seems like discussions turn toward the power grid. But what exactly is the power grid, and how does it work? In the U.S., the power system consists of more than 9,200 electric generating units with more than 1 million megawatts of generating capacity connected to more than 600,000 miles of transmission lines, according to the U.S. Department of Energy.

- First, power is generated at a power plant by converting some form of energy into power. Examples of energy sources include wind, water, steam, oil, coal, nuclear, solar and natural gas.
- Once the power is generated, it is converted to high voltages so it can be pushed a long distance through the grid via transmission lines (345,000 volts) or subtransmission lines (69,000 volts).
- Eventually, it is stepped down so it can be sent on to lower-voltage power lines called distribution lines (7,200 volts), which take the electricity to houses and businesses.
- Once it makes its way there, it gets stepped down again before it enters the structure through drop-down lines (220 volts).
- Sensors are located at key points throughout the grid to monitor outages.

Some electric utilities generate all the electricity they provide using their own power plants. Some utilities purchase electricity from other utilities, independent power producers or a wholesale market.

How consumers, or end users, purchase energy varies from region to region:

- The utility providing power may be a not-for-profit municipal electric utility; an electric cooperative owned by its members; a private, for-profit electric utility owned by stockholders (often called an investor-owned utility); or in some states, a power marketer.
- A power marketer is often a trading company engaged in the purchase and sale of electricity. Generally, these marketers do not own generation or transmission facilities. Rather, they buy electricity from utilities, independent power producers and other suppliers to sell wholesale to other utilities or marketers.

Newer technology is improving how the grid works, inspiring the phrase "smart grid" to describe this evolutionary process. For example, some improvements include:

- **Individual microgrids**. With some sources of energy now at consumers' disposal, some individuals and businesses have their own power source (solar panels, for example).
- **Energy storage technology.** This enables companies to store excess energy when not needed and use it later when there is more demand.
- **Smart meter technology.** This creates two-way communication between consumers and the electric utility or cooperative by automatically notifying them about outages and other potential issues. Smart meters also allow consumers to see how much electricity they use, when they use it and its cost. Combined with real-time pricing, this allows end users to save money by using less power when electricity rates are highest.

For more information about electricity safety and energy efficiency, visit SafeElectricity.org.

MCEC welcomes two new office employees

Melissa Hardin and Rachelle Fizer

With two upcoming retirements at the end of the year, your cooperative has hired two new individuals to fill positions as Member Service Representatives (MSRs). These new employees will be working at the front desk of the office, answering phone calls and when the COVID-19 situation allows us to open up, work with the membership face-to-face.

Melissa Hardin

Melissa was hired on June 14. Her last position was an administrative assistant at Rogers Elementary School in Waterloo. She worked there for the past 7 years.

Melissa lives in Columbia and has two daughters ages 15 and 17. Since her soccer and band mom days have come to an end, she uses her free time to garden, craft and enjoy her time with family and friends.

Melissa Hardin

Rachelle Fizer

Rachelle Fizer

Rachelle was hired on June 16. Prior to joining MCEC, she worked at New Athens School District as the superintendent secretary for 8 years.

Rachelle and her husband, Darrin, live in New Athens with their two children, Haley and David. Rachelle enjoys camping with her family and friends and gardening.

Both Melissa and Rachelle will be answering phone calls, working with members on bill payments, answering questions and setting up budget billing and auto payment programs. They will also be working with delinquent accounts and making payment arrangements.

Melissa and Rachelle are looking forward to working with the membership and are excited to start their new journey with MCEC.

Drew Goff, *tree trimming intern*

Drew Goff joined the tree trimming crew at the beginning of June as a summer intern. He graduated from Waterloo High School this year where he participated in FFA and played on the football team. In his free time, he likes to hunt, fish and ride his four-wheeler.

Drew hopes to become a lineman and is looking forward to getting a taste of the trade here at MCEC.

Drew Goff

We welcome Melissa, Rachelle and Drew to our cooperative and wish them all the best.

Mark your calendar! Monroe's annual meeting will take place Saturday, Oct. 2 at the cooperative office.

SAVE THE DATE!

MCEC
Monroe County Electric Cooperative, Inc.
Your Touchstone Energy® Cooperative

6132 State Rt. 3 • P.O. Box 128
Waterloo, Illinois 62298
618-939-7171 • 800-757-7433

www.mcec.org

Office hours: Monday through Friday 7:00 a.m. to 4:00 p.m.

Meet the Directors

Joel Harres

What is the most important duty of a director?

To keep the co-op focused on its core mission.

What has surprised you most about serving as a director?

The amount of effort and detail put into the operation by the staff.

What is your projection of the future for the cooperative?

I think we are going to have to be nimble and smart because many changes are coming. We just don't know what all those changes will be yet.

What person has had the greatest impact on your life and why?

My dad has had the greatest impact because he showed me how to live a life with integrity and how to always do the right thing.

How do you like to spend your free time?

I enjoy spending my free time with our kids, grandkids and working around my home.

Energy Efficiency Tip of the Month

When shopping for new light bulbs, know the difference between lumens and watts. Lumens measure the amount of light produced by the bulb. Watts measure energy consumption.

Energy-saving LEDs come in a variety of colors and brightness levels and last 15-25 times longer than incandescent bulbs.

Source: energy.gov

MCEC line outages June 2021

Date	Duration	# Out	Map Location	Cause Desc	Substation
6/4/2021	0:56	2	Lower Saxtown Rd	Other, faulty equipment	Millstadt
6/4/2021	1:29	76	Five Forks Rd	Unknown	New Athens
6/14/2021	0:09	188	Columbia South	Maintenance	Columbia
6/16/2021	1:48	13	Schlueter German Rd	Other, faulty equipment	Smithton
6/17/2021	1:49	46	Grant/Maus Rd	Trees, other	Fults
6/18/2021	0:09	535	Waterloo East	Other, scheduled	Waterloo
6/20/2021	1:00	20	Rock Rd	Trees, other	Waterloo
6/20/2021	2:15	7	Triple Lakes Rd	Small Animals Or Birds	East Carondelet
6/21/2021	1:54	98	Gall Rd/Cedar Ridge Ln	Lightning	North Waterloo
6/21/2021	0:40	7	Floraville Rd	Other, faulty equipment	Smithton
6/22/2021	1:18	3	Concordia Church Rd	Small animals or birds	East Carondelet
6/27/2021	0:59	3	Imbs Station Rd	Lightning	East Carondelet
6/29/2021	1:10	2	Douglas Rd	Unknown	Smithton

Is a power line insulated?

(and other myths debunked)

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, birds on a wire and other conundrums:

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, arc or make any noise at all.

Where might downed power lines be?
A downed power line might be in the street, 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 doesn't mean it's dead. There's a chance the line is still energized, which not only means you should not touch it, but 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 it's caused by another unforeseeable reason, such as 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 contact the utility pole or other grounded source, it will 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. Although our first instinct is often to help, a person running near an energized area could get electrocuted.

Contact us at 618- 939-7171 or 1-800-757-7433 with any questions about downed lines. For more information about electrical safety, visit SafeElectricity.org.