Electric co-ops are contributing to a smarter grid

Norris Elec

It's a familiar scene: poles and wires stretching into the distance alongside a rural highway. This image might appear no different now than it did years ago, but look more closely. Invisible to most of us is an overlay of new equipment—chips, sensors and fiber—linking remote distribution infrastructure to the utility's operations center using advanced communications technology.

Those iconic poles and wires are now part of a "smart grid" that can be operated using software and automation.

For electric cooperatives, "digitalization" of electric infrastructure kicked into high gear in 2013 when the U. S. Department of Energy (DOE) funded new technology research at 23 electric co-ops across the country. That partnership has now evolved into a robust research program exploring everything from drones and smart solar inverters to cybersecurity training and carbon capture technology.

Here are some ways co-op consumer-members are already benefiting from a smarter grid:

Fewer power outages. In certain situations, smart feeder switching can re-route power around problems such as downed power lines, which reduces the number of people affected by an outage.

Pre-pay programs. Most co-op prepay billing programs no longer impose hefty reconnection fees because, thanks to advanced digital meters, the co-op doesn't need to send out a truck to physically reconnect the home.

Your Touchstone Energy® Partner

Cost savings from increased efficiency. Many of the new technologies are improving the efficiency of co-op operations—from reducing the amount of electricity lost in transmission to reducing the need for sending out trucks. These cost savings are passed on to co-op members.

Improved safety for co-op workers and members. The data from smart technologies provide utility operators a more detailed view of what is happening on the electric system. Co-ops have found the data can help them identify electrical hazards faster.

The research partnership between electric co-ops and the U.S. DOE, including the national laboratories, has enabled co-ops nationwide to increase their total solar energy capacity, install cutting-edge batteries for energy storage and microgrids, develop data analytics tools and find new ways to capture emissions from coal and natural gas power plants.

This partnership gives electric co-ops in some of the most remote regions of the country access to an amazing network of researchers, including researchers at Carnegie Mellon University, Purdue University and the University of California at Berkley, to name a few.

In exchange, the researchers can see how these new technologies operate in the real-world.

So, the next time you drive down a highway and see poles and wires stretching into the far distance, know there's more to that system than meets the eye. While the electricity in your home powers the toaster just as it always did, that electricity is more efficient, reliable and safer thanks to innovation made possible by cooperation.



Four common culprits of electrical fires

A sy is National Electrical Safety Month, which is the perfect time to evaluate the safety of your home's electrical system. Outdated wiring and overloaded circuits are the most common causes



of electrical fires. Check the following areas of your home to ensure your home's electrical safety is up to par.

Electrical outlets

Faulty electrical outlets are a leading cause of home fires. As outlets age, so do the wires behind them that you can't see. Any loose, damaged or warm-to-the-touch outlets should be repaired or replaced.

Electrical wiring

Outdated wiring is another common cause of electrical fires. Frequently tripped breakers, flickering lights and burning smells are clear warning signs. If your home is more than 20 years old, it may not be able to handle today's increased power load. If you suspect your home's wiring is outdated, leave this one to the pros and contact a qualified electrician.

Overloaded cords and outlets

Extension cords are not permanent solutions. If your big-screen TV, home theater system and other electronics are plugged into one extension cord, it's time to call an electrician and install additional outlets.

Old appliances

Older appliances are more likely to have loose or damaged wiring, which means they're more likely to catch fire. Check older appliances for damage and determine if it's time to upgrade or replace. Also check to ensure you're using appliance-grade outlets. A qualified electrician can help with installation.

Help us reduce your costs

A re you paying your electric or internet bill by credit card or debit card? Did you know that every time a credit or debit card is used, Norris Electric pays a fee? It is true. Norris Electric pays a percentage of the total amount charged to your card. In order to keep members' costs low, we encourage you to review other payment options.

- Mail your check to the office
- Set up recurring bank draft from your checking or savings account
- Make a payment at one of the convenient local banks
- Set up electronic payment from your bank to be transferred to Norris Electric
- Pay by e-check from our automated phone system
- Pay online with e-check at www.norriselectric.com
- Download the Norris app on your smartphone and pay by autopay or e-check

Please contact the office to make changes that will reduce costs for everyone.

ENERGY EFFICIENCY TIP OF THE MONTH

When the weather is nice, put your grill to use! During summer months, cooking outdoors is a great way to save energy and eliminate unwanted heat from cooking indoors.

LIHEAP update

Torris Electric would like to inform our members of energy assistance options available to support those impacted by the COVID-19 outbreak. The state of Illinois' Low-Income Home Energy Assistance Program (LIHEAP) has been extended through June 30 or until funding has been exhausted.

The following agencies serve our members in their respective counties:

Jasper County, Cumberland County, Clark County, Crawford County, **Richland County and Lawrence** County Embarras River Basin Agency, Inc. 400 West Pleasant PO Box 307 Greenup, IL 62428 217-923-3113 www.erbainc.org

Effingham County C.E.F.S. Economic **Opportunity Corporation** 1805 South Banker Street PO Box 928 Effingham, IL 62401

217-342-2193

www.cefseoc.org

Wabash County

Wabash Area Development, Inc 110 Latham Street PO Box 70 Enfield, Illinois 62835 618-963-2387 www.wadi-inc.com

to bed with you. DO NOT bring a charging cell phone or other electrical devices near water, including a bathtub or pool. If you are in a car accident involving a downed power line, DO NOT get out of the vehicle unless you see smoke or fire.

ELECTRICAL

A DO NOT put

your cell phone under

your pillow or take it

If you must exit a burning

vehicle near or on a downed

power line, make a clean

exit from the car and land on both feet: then

hop with feet together,

DO NOT WALK.

to safety.

Safety

DO NOT use generic chargers or cords. They could overheat or shock or burn you.

DO NOT use charging

tate Electricity.org

cell phones or other

electrical devices with wet

or damp hands.

Make sure your phone number and email are up to date

Over the years, many members have done away with their landline telephones. Due to this, the co-op is sometimes unable to reach members without a current phone number in our system.

We ask that if you have changed your primary phone number or would like to add a cell phone number or email address to your account, please notify us.

It is important we have a current number in our system so that we are able to reach you in the case of an emergency. Please give us a call at 877-783-8765 to update your phone number.

Norris Electric Board of Directors

A board of directors is the representative body of the members of the cooperative. It represents the legitimate cooperative owners and acts on their behalf. The owners elect the board and place in its hands the administration of the assets and responsibilities of the cooperative. The board of directors has five principal functions:

- 1. Legal: Ensure the legal right of the cooperative to exist.
- 2. Trusteeship: Act in the best interest of the members.
- **3. Planning:** Develop programs and carry out plans based on ideals that reflect the thinking of its members with realistic goals adjusted to the purposes of the cooperative.
- 4. **Resources:** Assure the availability of basic resources, including personnel, loan funds, wholesale power and revenue, according to the cooperative's size and needs.

5. Control: Monitor operations to assure compliance with board policy, budgets, member relations, loan covenants, contractual compliance and long-range planning.

In addition to the above responsibilities, directors also have certain duties and rights. Director duties include loyalty, obedience and due care. Loyalty requires a director to be loyal first to the cooperative entity. Obedience requires a director to perform his or her duties in accordance with applicable laws, bylaws, contracts and policies. Due care requires a director to perform his or her duties as a member of the board, or any committee of the board upon which he or she serves, in good faith, in a manner he or she reasonably believes to be in the best interests of the cooperative, and with the care that an ordinarily prudent person in a similar position would use under similar circumstances.

