

# Learning to use technology to improve service

As we continue to expand our use and understanding of some of our recently added technology, we learn even more about where we can improve our service to the membership. We are still ironing out a few kinks as they are identified and still learning how to properly interpret the data being provided, but each day brings things into a little clearer focus. Winter Storm Jonas brought major snowfall to the area, but it also provided us the ability to evaluate how well all of our new technology was working together.

As a refresher, we first started working on a geographic information system (GIS) where every pole, meter and protective device was identified. We simultaneously changed out every meter on our system with new electronic meters that are equipped with advanced metering infrastruc-

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ture (AMI) devices from Aclara. Finally, we combined the abilities of these two technologies with the addition of an outage management system that is available both in the office and in the field. In theory, an outage call that is entered into the OMS triggers the AMI system to begin a systematic "ping" of meters to determine which protection device is the origin of the problem. When we tell it the outage is restored, it triggers another meter "ping" sequence to verify the restoration.

Everything performed to a high degree of accuracy with only a few stray results that we can now clean up in the GIS connectivity model. Of course, while knowing where to begin was a big help, technology couldn't do anything about getting trucks and men through 18 to 24 inches of snow in blizzard conditions to actually make the necessary repairs. Actual restoration was totally dependent upon the dedication and intestinal fortitude to those who actually answered the bell to put others' needs before their own. I appreciate the efforts of these individuals, unlike the individual who messaged us that they essentially did not care how tough the conditions were, those guys chose to be linemen and he/ she did not choose to have their

Manager's Corner by Terry Stout, CEO/General Manager

electricity go out.

Beyond the technology, the storm provided us another opportunity to evaluate our internal procedures to determine outright weaknesses and areas for improvement. We have developed an emergency response program (ERP) that is meant to cover all of the possibilities we may encounter. Obviously, there is always tweaking to the program because reality has a habit of showing you just how much you do not know and what you didn't think of. We consulted the ERP prior to the storm's arrival and actually had support crews on hand Friday. Luckily, we were able to release them Saturday.

The bottom line is that despite how much technology you add and how much planning you do to prepare, the world and life is going to throw you new challenges every day. Accept these challenges as learning opportunities and endeavor to always do better and make the necessary improvements.

See you in the SPRING. 28

### **Electric co-ops participate in** national electric grid security exercise

BY DAN RIEDINGER

Have you ever imagined what would happen if a catastrophic event damaged or destroyed parts of our electric system? What if a derecho tore down high-voltage power lines? What if a power plant sustained major flooding? What if a hacker got into an electric utility's control system?

Relax! You don't have to dream up these scenarios; there are utility security professionals who do that for a living, and recently they convened more than 3,000 people from 350 organizations for a two-day exercise to help utilities prepare for these sorts of disasters.

The event was called "GridEx III," and it simulated physical and cyber attacks on the nation's power systems, destruction of communication systems, and damage from explosive devices and shootings.

Electric co-ops were well-represented during the drills: A few hundred staffers from 14 generation and transmission utilities, as well as four distribution co-ops, participated in this biennial exercise, which was spearheaded by the North American Electric Reliability Corporation (NERC). NERC said the exercise was designed to "enhance coordination of cyber and physical security resources and practices within the industry, as well as communication with government partners and other stakeholders."

Co-ops were represented at the national level by Duane Highley, president and CEO of Arkansas Electric Cooperative Corporation & Arkansas Electric Cooperatives, Inc. Highley serves as co-chair of the industry's Electricity Subsector Coordinating Council. The CEO-level council works with Cabinet-level officials from the federal government on electric reliability, security and resiliency in the face of cyber and physical threats.

"Simulated exercises such as these allow co-ops to practice contingency and response plans, improve them and hone our skills to be prepared for potential future events," Highley said. "This also gives us the opportunity to improve our coordination capabilities with multiple industry sector partners at the local, state and federal levels."

**DAN RIEDINGER** writes for the National Rural Electric Cooperative Association, the Arlington, Va.based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.



If you see these HREA employees this month, be sure to wish them a very happy birthday!

Sean Bailey	March 09
Joe Duffelmeyer	March 20
Lucas Randolph	March 26

HREA will be closed March 25 in observance of Good Friday.

For emergency service, call 800-540-HREA.

#### 19 MARCH 2016 • COUNTRY LIVING

### **AVOID A BAD DECISION WHEN** BY PAUL WESSLUND **YOUR WATER HEATER BREAKS**

### Save money and help the environment with a replacement – your co-op can help

If you want to save money on your energy bills and help the environment, a good step would be to have a replacement plan for your water heater when it fails.

And a key part of that plan is to get advice from HREA.

That helpful tip comes from an expert who's just published research showing that the increased use of electric appliances would improve energy efficiency at home and for the nation.

Keith Dennis is the senior principal of enduse solutions and standards at the National Rural Electric Cooperative Association (NRECA). His article, published in the November issue of The Electricity Journal, shows that we've been using for decades assumptions and measurements for energy efficiency that are no longer accurate. It explains that electric water heaters are a much better choice than natural gas, both for environmental impact and for home energy savings. That's important - water heating typically accounts for about 15 percent of a

home's energy use.

The problem is, replacing a water heater is often a panic decision. They seem to break at the worst time, and you're probably thinking only about getting hot water back as quickly as possible, rather than the best decision for energy efficiency.

"Moving forward, utilities will be more and more involved in helping with that purchasing decision," Dennis says.

The bottom line: Before purchasing a new water heater for your home, talk to the energy experts at HREA call 800-540-4272.

To read Keith Dennis's report on water heater efficiency, visit www.sciencedirect.com/science/article/ pii/S104061901500202X.

**PAUL WESSLUND** writes for the National Rural Electric Cooperative Association, the Arlington, Va.based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

#### HOW TO CLEAN REFRIGERATOR COILS AND WHY IT MATTERS!

Your refrigerator is one of the largest, most-used appliances in your home. It requires only minimal maintenance – just simple cleaning of the condenser coils, which disperse heat. If the coils are covered with dust, gunk or pet hair, they cannot diffuse the heat properly and will not run efficiently. A bigger problem can result if the compressor burns out from having to run constantly because of the grimy coating. This can be an expensive problem. A minor investment in time once a year can save you cash down the line



## **Knowing what** to do SAVED THEIR LIVES

Teens stayed safe after a car crash with an electric pole

WHEN TEENAGERS LEE WHITTAKER and Ashley Taylor saw a power line safety demonstration at their high school, they never dreamed what they had learned that day would be put to test. Only days later, Whittaker and Taylor, along with two classmates, were in a car that crashed into a utility pole, bringing live power lines to the ground.

"When people are involved in a car acci-

they are live by arcing and sparking with electricity, this is not always the case. Power lines do not always show signs that they are live, but they are just as lethal.

After an accident, stay in the car, and tell others to do the same. If you come upon an accident involving power lines, do not approach the accident scene. If you see people approaching, warn them to stay away. Call 911

> to notify emergency personnel and utility services. Do not leave your vehicle until a utility professional has told you it is safe to do so.

The safest place to be is almost always inside the car. The only circumstance when you should exit the vehicle is if it is on fire, and those instances are rare. If you must exit the vehicle, jump clear of it with your feet together and without touching the vehicle and ground at the same time. Continue to "bunny hop" with your feet together to safety.

This will ensure that you are at only one point of contact and will not have different strengths of electric current running from one foot to another, which can be deadly.

Whittaker, Taylor and their friends survived their accident because they had learned what to do. While they waited more than 30 minutes for line crews to arrive and deactivate the power line, Whittaker and Taylor made sure nobody left the car and warned those who came upon the accident to stay far away.

"Knowledge was crucial in keeping everyone involved in the accident safe," Hall says. "We want to make sure that everyone knows what to do if they're in accidents with power poles."

For more information and to see Lee and Ashley's story, visit SafeElectricity.org.

demonstration on what to do in this type of situation, which ultimately saved their lives.

dent, electricity is usually the last thing on their minds," explains Molly Hall, executive director of the Energy Education Council's Safe Electricity program. "We're usually more concerned about whether anyone was injured or how badly the vehicle is damaged. We can forget that by exiting the vehicle, we're risking exposure to thousands of volts of electricity from downed power lines."

If you are in an accident with a utility pole, your vehicle may be charged with electricity. If this is the case and you step out of the car, you will become the electricity's path to the ground, and you could be electrocuted. Loose wires and other equipment may be in contact with your car or near it, creating a risk for electrocution if you leave the vehicle.

While downed lines can sometimes reveal

Lee Whittaker and Ashley Taylor, along with two classmates, survived a vehicle collision with an electric utility pole. The students had recently seen a safety