Extreme Cold Challenges Power Grid



MESSAGE FROM MANAGER ALAN LESLEY

For all of the inconvenience that the rolling blackout event on February 2 created, it was also a necessary occurrence that prevented a statewide blackout of the entire electric grid in Texas.

The event began early on the morning of February 2 when the Electric Reliability Council of Texas (ERCOT) issued a watch stating there was a high probability they would implement their emergency load reduction plan. Just 36 minutes later, ERCOT had gone through all three steps of the plan and an immediate instruction for system operators to reduce their load was communicated to all electric distribution utilities in the ERCOT system. Two additional load reduction demands were received within an hour and for the next seven hours electric consumers in Texas experienced rolling blackouts.

What would cause such an event? Why were there no warnings? The simple answer would be Mother Nature, but the real answer to these questions lies within the complexities of the states' electric grid.

The electric grid in Texas, as well as all other parts of the nation, powers our homes and businesses through a mass of interconnected wires that ultimately are fed from a series of generating facilities throughout the state. Since this supply of energy cannot be stored, the electricity we use in any given moment is produced in that same moment by these generating facilities. Under normal circumstances, these generators produce excess electricity to meet the need, or "demand", we place on them at any given point in time.

However, that Wednesday morning was anything but normal. While we are accustomed to moderately cold weather in our part of the country, the morning of February 2 was met with temperatures in the single digits. Water not only froze in the piping in many of our homes but also in the piping throughout the generating facilities on which we are so dependent.

Water is an essential component in the production of electricity at these facilities. It helps not only in the cooling of the power plant, but in many cases acts as the power supply in the form of steam used to turn the turbine attached to the generating unit. As a result, the generating units tripped offline to protect themselves from malfunction due to the freezing water in their piping. This reduction of generated electricity began to eliminate the excess capacity in the electric grid.

At the same time, the single digit temperatures caused the state's electric consumers (you and I) to place additional demand on the grid with increased consumption. This increased demand, combined with the reduced capacity, produced a shortage of available energy. In other words, demand exceeded supply. The only way for ERCOT to compensate for this discrepancy was to call for each utility in the state to drop the excess demand based on their percentage contribution to the state grid.

For Comanche Electric Cooperative, this percentage amounted to us turning off approximately 2,000 homes on a rolling basis during the peak of the event. At the point where ERCOT determined there was an adequate supply of electric generation available for consumption, the rolling blackouts ceased. The majority of our members lost power for approximately 25-30 minutes, with the exception of a part of our territory where we interconnect with other utilities.

All in all, the system worked as required, although not perfectly. We have since worked to address any problems we encountered during this process and will continue to work for you, our members, to see that these inconveniences are kept to an absolute minimum.

Looking Out for **YOU**



It's hard to predict the future, but one thing seems certain: New government regulations will increase the cost of electricity.

We're controlled by members like you, and your money stays in our community. In fact, since we're not-for-profit, we give money back to you when revenues exceed costs. Find out how we're looking out for you at www.ceca.coop.





The right tools—in good condition—and the right person are crucial to outdoor safety. Children should never be allowed to handle electrically powered tools. When it comes to getting your yard and garden in shape for spring, the No. I rule is this: Think safety first.

Think Outdoor Safety for Spring

With warmer temperatures comes an increase in outdoor activity, especially for homeowners getting their yards and gardens back into shape. Think safety first—especially around electricity—when performing spring chores.

Before plugging in your electric mower for the first time this spring, ensure that the blade is sharp and in good condition; the discharge chute is free of dirt and debris; and the insulation on the power cord is in good repair.

• Appliances or electrically powered tools should not be used outdoors unless they are equipped with a heavyduty cord and three-pronged plug. If the grounding prong is missing or damaged, have it repaired before you attempt to use it.

• Ensure that all outdoor electrical outlets are weatherproofed with plug covers and equipped with a ground-fault circuit interrupter (GFCI).

Before digging, whether it's to plant a tree, make a new garden bed or embark on a construction project, call 811 to find out whether a buried electric cable or other infrastructure might be on your property. The call not only is required by Texas law, but also might even save your life!

• If an electrical fire starts at an outdoor wall outlet, pull out the plug by the cord or turn off power at the breaker and call 911. If the fire is small, you can attempt to put it out with a carbon dioxide-based or generalpurpose fire extinguisher. Never put water on an electrical fire.

• If you are not sure you can handle a job, employ an expert—especially when it comes to electrical repairs.

• Keep tools clean and maintained. Check them over before each use.

Plan ahead and don't rush a job. Accidents are more likely when you are in a hurry.

• Wear the correct clothing and sturdy shoes when mowing or using other power tools in the yard.

Before attempting to adjust or repair an electrical tool, don't merely turn it off—unplug it.

SAVE TIME, MONEY Pay your bill online!

Options available on the new system are:

- Online bill payment
- Account management (change address, telephone number, e-mail address, etc.)
- Billing and payment history
- Applying for budget or levelized billing
- Opting in or out of Operation Round-Up
- Applying for e-mail notifications

TFYASCOOPPOW

Co-op Teens Power Texas

Visit us at **www.ceca.coop.** For login instructions, give us a call at 1-800-915-2533.

DEADLINE IS APRIL I. ENTER TODAY!

SHOOT A VIDEO AND WIN \$15000

HIGH SCHOOL STUDENTS: Make your own YouTube video, and you could win a cash prize!

TEACHERS: You could win **\$1000** for your school by sponsoring the grand prizewinner.

For full details, go to www.TexasCoopPower.com



Conservation MATTERS

- THE LATEST NEWS AND INFORMATION ABOUT ENERGY CONSERVATION FROM YOUR ELECTRIC COOPERATIVE

Energy Rebates Return for Another Season

ring Our Wo

Responsibly

Spring has sprung, and the weather is comfortable. There is no better time of the year to make your home more energy efficient.

Through CECA's **ecoPOWR Rebate Program**, you might even qualify for a rebate while lowering your electric bill. When you install more efficient lighting, electric heating and cooling equipment, attic insulation, low-flow showerheads or faucet aerators, electric water heater blankets, hot-water pipe insulation or commercial lighting upgrades, you could be making improvements that will not only lower the bottom line on your electric bill, but put an ecoPOWR Rebate check in your hands as well.

Compact Fluorescent Lighting

Switch out existing incandescent bulbs with compact fluorescent lighting. **Qualified Rebate:** \$1.25 per bulb (*Residential lighting only; 20-bulb maximum*)

Low-Flow Showerheads

Replace existing showerhead with one having a flow rate of under 2 gallons per minute. **Qualified Rebate:** \$10 per showerhead (*Electric water heating only*)



Even small investments like a low-flow showerhead can offer benefits from both our ecoPOWR Rebates and lower energy costs.

Electric Water Heater Blanket

Install an insulating blanket on your existing electric water heater. **Qualified Rebate:** \$15 per electric water heater

Pipe Wrap

Insulate all exposed hot water pipes to reduce heat loss.

Qualified Rebate: \$10 per electric water heater

Low-Flow Faucet Aerators

Replace existing faucet with one having a flow rate of 1.5 gallons per minute in bathrooms and under 2.2 gallons per minute in kitchens.

Qualified Rebate: \$5 per faucet (*Electric water heating only*)

Ceiling Insulation Upgrade

Increase the insulation of your single-family home. Homes with R-8 insulation or less must increase insulation to a minimum of R-38 to qualify. A receipt from the contractor performing the upgrade must document existing insulation R-value prior to upgrade and the resulting R-value after upgrade.

Qualified Rebate: \$275 per residence (*Electric resistance heating only*)

Commercial Light Fixture Upgrade

Replace existing commercial light fixtures with new highefficiency light fixtures to reduce the number of watts of electricity used. Contact CECA Member Services Department for verification before upgrading.

Qualified Rebate: 20 cents per watt saved per fixture

Heating and Air Conditioning

Even though it may be warm enough to throw open the blinds and raise the windows, we Texans all know that summer's heat is just a couple of months away. That makes spring the perfect time to make sure your A/C is in shape for the coming season.

The best time to service your home's air-conditioning system is when you don't need it. If you put if off until it's 90 degrees outdoors, you could be deal-

ing with some downtime that can leave conditions in your home pretty uncomfortable.

The annual service of your airconditioning unit is important because your technician will lubricate and clean moving parts, and check for and repair—potential problems. That will make it more likely that your system will run smoothly all summer.

Choose a state-licensed A/C technician. You can find licensed technicians by county at the Texas Department of Licensing and Regulation online at www.license.state.tx.us/licensesearch or by calling 1-800-803-9202. Chances are, the same technician can come back in the fall to tune up your heating system.



The best time to have your air-conditioning system serviced is before you need it.

And, if your air conditioning is

more than 10 years old, you should seriously consider replacing it. Today's systems are so much more energy efficient that you can recoup the investment through lower electric bills in a surprisingly short amount of time.

And by tuning up your existing A/C unit, or replacing it with a high efficiency heat pump, you could qualify for even more ecoPOWR rebates.

Heating/Air Conditioning Tune-up

Schedule an annual tune-up to check your unit's refrigerant charge, repair any leaks, clean and lubricate the blower unit, inspect and clean refrigerant coils, replace filters and inspect thermostat, wiring and ductwork. **Qualified Rebate:** \$100 per unit (*One inspection per member household*)

High-Efficiency Electric Heat Pump

Reduce kilowatt demand and energy consumption by replacing existing HVAC equipment with better-performing models. To qualify, a copy of the certification must accompany the sales receipt from a licensed HVAC contractor showing the make and model number of the equipment installed. The equipment efficiency will be certified by the Air-Conditioning Heating and Refrigeration Institute (AHRI). **Qualified Rebate:** \$100 for 14 SEER Heat Pump **Qualified Rebate:** \$200 for 15+ SEER Heat Pump

This program has been designed to encourage cooperative members to select cost-effective, energy efficient measures that will reduce power costs in your homes and businesses. The availability of the rebate is limited and rebates will be processed on a first-come, first-served basis. When funds have been depleted, the ecoPOWR Rebate Program will no longer be available until the beginning of the next calendar year, pending board approval. Members must submit all required documentation to be eligible for rebates.

* CECA reserves the right to inspect the member's property and equipment associated with a rebate request to determine eligibility. CECA is not party to any agreement between the member and any service provider hired by the member to install equipment or to perform services in order to qualify for a rebate. The member and such service provider are solely responsible for satisfying rebate eligibility requirements.

Staying on Top of Unsafe Products

BY CHRISTINE SMITH

Each year, thousands of product recalls —many of them electrical devices occur in the United States. Given that some recalls involve items that have done great harm, it's important to stay on top of developments.

Recalls begin in two ways: A federal regulatory agency issues a mandatory recall, or the manufacturer voluntarily recalls the product after receiving information that it could be unsafe.

Stay on top of the dozens of recalls that are issued every week with these key sources:

RECALLS.GOV

The Consumer Product Safety Commission (CPSC), the National Highway Traffic Safety Administration, the Food and Drug Administration, the U.S. Department of Agriculture, the Coast Guard and the U.S. Environmental Protection Agency joined forces to create the website.

In addition to having the latest information, www.recalls.gov allows users to perform a keyword search through its archives and boasts a mobile phone application, which enables consumers to get information when and where they need it.

Some of the agencies, including the CPSC, have RSS feeds, which provide users with new information automatically every day.

CONSUMERREPORTS.ORG

The popular website www.consumer reports.org contains a safety blog on recalls and additional information, including illustrations of unsafe products. Users can sign up for the safety blog to receive information on a daily basis.

Christine Smith writes about electrical safety for the National Rural Electric Cooperative Association.