

Electric Grid Reliability and Resilience



MESSAGE FROM CHIEF EXECUTIVE OFFICER ROBERT A. LOTH III

KEEPING THE LIGHTS ON IN THE EVENT OF A NATURAL DISASTER OR cyber incident is a major—and growing—concern for the electric industry. At Central Texas Electric Cooperative, we take steps to lessen potential damage and ensure that the system recovers quickly so it can get back to the business of providing you power.

What's the Difference?

Power grid resilience and power grid reliability are frequently, and often interchangeably, referenced in conversations about keeping the lights on. This raises the question: What is the difference between reliability and resilience?

Reliability means the ability of the power system to deliver electricity in the quantity and quality demanded by users. Reliability means that the lights are always on in a consistent manner.

Resilience concerns the ability of a system to recover and, in some cases, transform from disruptive events. Resilience-focused approaches to stabilizing the grid emphasize the idea that such incidents occur regularly, and systems should be designed and shored up to bounce back quicker and stronger.

Steps Toward Stability

A panel of national experts, including scientists from the National Rural Electric Cooperative Association, recently conducted a study on behalf of the

U.S. Department of Energy to make recommendations for improving grid security.

The panel recommended more cooperation among stakeholders and stepped-up coordination on threat assessment, training and joint recovery planning. Major emphasis was placed on the need for research involving government and industry players, including NRECA and its member cooperatives.

At Central Texas EC, our own resiliency efforts involve every aspect of our operations—from the member service representatives in the call center to the linemen in the field, from the engineers in the control room to the communicators keeping the media and members updated.

Electric co-ops serve the most rugged, remote terrain in the country, covering more than 70 percent of the nation's landmass. We have learned how to restore power in incredibly difficult circumstances, and we're focused on increasing reliability and resilience for you, our members.



Prepare for Little Visitors

WITH THE HOLIDAYS COME HOUSE-

guests, and often they're little ones. Kids and grandkids can be a joy, but their presence requires preparation around the house. Use these tips to ensure that your home is ready to welcome your loved ones for all the festivities.

- ▶ Put away small items that could pose choking hazards, such as batteries, buttons, coins and jewelry.
- ▶ Install tamper-resistant electrical receptacles to prevent shocks and burns, or use safety covers on all unused outlets that are accessible to children.
- ▶ Never allow children to play with electrical decorations or cords.
- ▶ Use safety gates at the tops and bottoms of stairways to keep babies and toddlers safe.
- ▶ Move all cleaning products and other dangerous items out of reach of children and store them in a locked area.
- ▶ Consider turning your water heater temperature down to 120 degrees to reduce the risk of scalding.
- ▶ Teach overnight guests your fire escape plan, including the location of your outside meeting place. Everyone should know at least two ways out of each room in your home.



LBJ's Vision for Area Youths Continues

Students can apply for all-expense-paid trip to Washington, D.C.



LYNDON B. JOHNSON, A TEXAS HILL COUNTRY NATIVE BORN IN STONEWALL AND THE 36th United States president, was an innovator in a number of ways. Although he's known mainly for his Great Society reforms and passage of the Civil Rights Act, he also inspired a youth program for electric cooperatives, from which Central Texas Electric Cooperative youths benefit to this day.

As a Texan who understood the value of quality rural life, Johnson was a champion of electric cooperatives, including CTEC, even helping form neighboring Pedernales Electric Cooperative. Before his presidency, the young, first-term Sen. Johnson inspired the Government-in-Action Youth Tour, a program that still is going strong after 51 years.

More than 50,000 U.S. teens, including local youths from Central Texas EC, have participated in the Youth Tour to Washington, D.C., following Johnson's challenge for electric cooperatives across the country to send youngsters to the national capital "where they can actually see what the flag stands for and represents."

CTEC is proud to follow the call to serve by sponsoring three high school students annually from our service area to participate in the tour.

"Having the opportunity to go on the CTEC Youth Tour is truly the experience of a lifetime," said Erin Ratliff, a 2017 Youth Tour participant. "The number of museums and memorials we saw was astonishing. Not only did I get to visit many landmarks that I'll never forget, but I also made some lifelong friends!"

Nolan Keller, another 2017 participant, said, "D.C. will definitely be one of my fondest memories, from marveling at the Lincoln Memorial to dancing the night away on a river cruise. This trip will make you form friendships that will last long past the end."

CTEC holds an annual essay contest to select three participants for Youth Tour. Participation is open to area high school students who have completed their sophomore year by May 2018. Students whose parents or guardians are members of Central Texas EC are eligible; the CTEC account must be in the name of the parent or guardian. All expenses for the tour (except personal items such as souvenirs, etc.) are paid by the co-op.

This year's essay prompt and additional details on submitting an application will be available in the December issue of *Texas Co-op Power*.

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Website

ctec.coop

CHIEF EXECUTIVE OFFICER

Robert A. Loth III

BOARD OF DIRECTORS

W.C. "Dub" Stewart, President, *Llano County*
Allen Goodwin, Vice President, *Kendall County*
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James Low, *San Saba County*
Charles E. Pearson, *Gillespie County*

Emergency Contact

To report electric service interruptions, please call the Central Texas Electric Cooperative office in your area at the numbers listed below:

FREDERICKSBURG AREA

(830) 997-2126

1-800-900-CTEC (2832)

including Gillespie, Kendall, Kerr, Blanco, Real and Kimble counties

LLANO AND SAN SABA AREAS

(325) 247-4191

THE LAKES AREA

(325) 388-4542

8 a.m. to 5 p.m.

(325) 247-4191

after business hours

MASON AREA

(325) 347-6314

including McCulloch, Menard and Kimble counties

CTEC Directors Receive Recognition

AT THE SEPTEMBER 19 CENTRAL TEXAS ELECTRIC COOPERATIVE BOARD MEETING, FOUR directors were recognized for achieving education certifications. Allen Goodwin of Kendall County, plus Charles E. Pearson, Doyleene Bode and Tim Lehmsberg, all of Gillespie County, received the Director Gold credential for their commitment to education from the National Rural Electric Cooperative Association.

The NRECA Director Gold credential recognizes directors who have earned their Credentialed Cooperative Director certificate and their Board Leadership certificate while also continuing their education through service on the board.

Today's electric utility environment imposes new demands on cooperative directors, particularly increased knowledge of changes in the electric utility business, new governance skills and a working knowledge of the Seven Cooperative Principles.

Central Texas EC is committed to educating board members to sharpen the body of knowledge for the benefit of all of the electric cooperative's members.

NRECA represents the nation's more than 900 consumer-owned electric co-ops, which provide electric service to more than 42 million members in 47 states. CTEC serves more than 39,000 meters in 11 Hill Country counties in Texas.



Regular Board Meeting Recap

Central Texas Electric Cooperative, September 19

Meeting called to order by Board President W.C. "Dub" Stewart and prayer offered. Member Errol Candy addressed the board.

Approved: Amended minutes of the regular board meeting held August 1

Approved: Minutes of the organizational board meeting held August 15

Approved: August 1–September 11 membership list and membership conversions

Approved: Safety report for seven months ended July 31

Reviewed: Financial and statistical reports for seven months ended July 31

Discussed: Future power procurement

Reviewed: Board Policy No. 11

Reviewed: Current Strategic Plan

Discussed: Committee reports and 2017–2018 committee assignments

Approved: Offer for Mason property

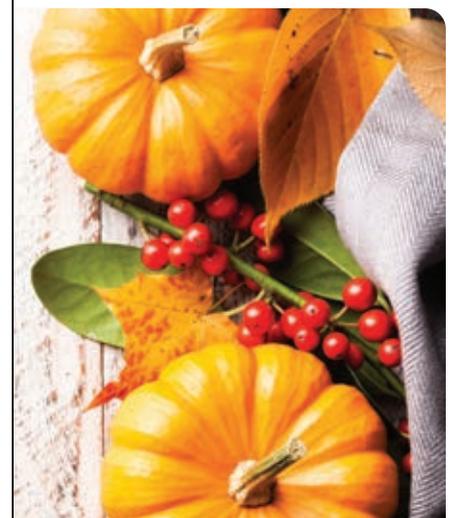
Meeting adjourned.



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Veterans Day November 11

Central Texas EC salutes veterans
for their service.



IRYNA MELNYK | ISTOCK.COM

Happy Thanksgiving

from Central Texas EC

Our offices will be closed Thursday
and Friday, November 23–24, to
celebrate the holiday.



Energy Q&A

OUR ENERGY ADVISOR ANSWERS FOUR OF THE MOST COMMON QUESTIONS ABOUT energy conservation in the home.

Q: How important is it to seal air leaks in your home?

A: Air leaks in the walls, ceilings and floors of your home can waste up to 30 percent of the energy consumed by heating and cooling equipment. Sealing air leaks reduces energy loss, helps control environmental contaminants such as dust and moisture, and makes your home more comfortable.

Q: Why is it so important to keep the return air filter clean on your heating and cooling system?

A: Clean filters keep your heating, ventilation and air conditioning system healthy. They enable it to run more efficiently, keep repair costs to a minimum and reduce monthly energy bills. Clogged filters make the HVAC system work harder as it conditions the air in your home, which raises your energy bill and shortens the life span of the equipment.

Q: What is the proper temperature to set my thermostat?

A: In the winter, 68 degrees when you are home, and 63–65 degrees when you're gone. In the summer, 78 degrees when you are home, and 81–83 degrees when you're away. For each degree above or below the recommended setting that you set your thermostat, you potentially can save 5–8 percent on your electric bill.

This is where a programmable thermostat really can help lower energy usage, by automatically changing the settings for you. Once you program the desired settings into the thermostat, you no longer have to remember to manually change the settings before you leave your house.

Q: How much is enough insulation?

A: In our part of the country, the 2012 Energy Code standards call for an insulation value of at least R-38 in the attic and R-17 on exterior walls.

Insulation is what resists the flow of heat into your home during the summer and out of your home in the winter. The higher the R-value of your insulation, the greater the resistance to heat flowing through it.

Most older homes do not have this level of insulation. However, it is relatively easy to add more insulation to most attics to increase the R-value. Walls are another story. Unless you are planning on tearing into your walls as part of a remodeling project, it is difficult and expensive to increase their level of insulation.

What To Do if the Power Cuts Out

THE HOUSE GOES DARK, AND EVERY-thing inside is silent. No fans whirring, microwaves beeping or TVs displaying the news. Your power has just gone out, perhaps because of a raging storm outside.

What do you do? During a power outage, stick to the following safety procedures:

- ▶ Use flashlights, not candles, which can start a fire if you drop one in the dark.
- ▶ Keep your refrigerator door closed, and it will keep food cold for four hours. A closed freezer will stay cold for up to two days without electricity.
- ▶ Dress in layers indoors when it's cold outside and your heater has stopped.
- ▶ Never, ever heat your house with the oven or a charcoal grill, which could cause carbon monoxide poisoning. Instead, see if a family member or friend with electricity can take you in temporarily.
- ▶ Unplug appliances and electronics in case of a sudden power surge, which can damage your equipment.
- ▶ Your backup generator belongs outdoors, not in your house or garage. The carbon monoxide in the exhaust could be hazardous.

Once the power comes back on:

- ▶ Toss out food that has been exposed to temperatures warmer than 40 degrees for more than two hours and restock any emergency supplies you used.

