

Electric Grid Reliability and Resilience



MESSAGE FROM
GENERAL MANAGER ALAN LESLEY

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 Comanche 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 Comanche 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 land-mass. We have learned how to restore power in incredibly difficult circumstances, and we're focused on increasing reliability and resilience for you, our members.





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Veterans Day November 11

CECA salutes veterans for their service.



IRYNA MELNYK | ISTOCK.COM

Happy Thanksgiving

from CECA

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



P.O. Box 729, Comanche, TX 76442

Operating in Brown, Callahan, Comanche, Eastland, Mills, Shackelford and Stephens counties

HEADQUARTERS

201 W. Wrights Ave.
Comanche, TX 76442

EARLY OFFICE

1801 CR 338
Early, TX 76801

EASTLAND OFFICE

1311 W. Main St.
Eastland, TX 76448

OFFICE HOURS

Comanche Office: Monday– Friday, 7:30 a.m.–4:30 p.m.

Early Office: Monday, Wednesday and Friday, 7:30 a.m.–4:30 p.m., closed 1–2 p.m.

Eastland Office: Tuesday and Thursday, 8 a.m.–4 p.m.

General Manager

Alan Lesley

Board of Directors

- Randy Denning, District 1
- Pete McDougal, District 2
- Ruby Solomon, District 3
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Report an Outage

CECA crews are available 24/7 in the event of a power-quality issue by calling 1-800-915-2533.

Contact Us

CALL US

1-800-915-2533 toll-free

FIND US ON THE WEB

www.cecacoop.com



facebook.com/CECA.coop

Right Trees, Right Place, Right Result

WHETHER PLANTING TREES TO CELEBRATE ARBOR DAY — this year, Friday, November 3, in Texas—or to provide a wind break, reduce carbon in the environment or beautify the landscape, Comanche Electric Cooperative reminds you of the importance of planting tall-growing trees safely away from power lines. Trees that grow too close to electric lines can create shock and fire hazards as well as power outages.

Take the time to research tree selections by consulting your local arborist, tree nursery or cooperative experts, who can help in designing a beautiful, shade-filled yard with trees that are appropriate for each area of the landscape but won't grow to interfere with the electric supply.

Trees help combat the effects of pollution by absorbing carbon dioxide. When trees grow, they take energy from the sun and combine it with carbon from the air to photosynthesize.

They remove carbon from the air and sequester, or store, it in their biomass and in the ground. This makes trees a natural "carbon sink," or living source of carbon reduction. Some trees are better suited for this task than others, and tree species that grow quickly and live long are ideal carbon sinks, according to the U.S. Department of Energy.

Choosing the right tree for the right place is crucial, especially when it comes to power lines. Trees and wood conduct electricity and can create a safety hazard if grown close to electric lines. Power outages or momentary interruptions can occur when branches come into contact with overhead lines. Electrical arcing and sparking from a wire to a nearby branch also can cause a fire.

Another concern is the safety risk when children climb trees near power lines. Accidental contact between electric wires and a child via a tree limb can be fatal. Parents and caregivers are urged to teach children to avoid not only trees near power lines but also padmount transformers and other equipment serving underground lines.

If you have trees that appear to be growing into power lines, contact your electric cooperative. Never try to prune them yourself. Your co-op has—or can recommend—skilled professionals trained to safely prune and trim trees for electric line clearance.

To avoid future electrical hazards, remember these safe planting tips:

- ▶ Consider the mature heights of trees. Never plant near a power line any tree that could grow to 25 feet or taller. Tall-growing trees should be planted a minimum of 20 feet away from power lines, and 50 feet away to avoid future pruning. A mature height of less than 15 feet is recommended for trees planted near power lines.

- ▶ Do not plant near underground utility ser-

vices. Tree roots can grow to interfere with underground pipes, cables and wires. Future repairs to these facilities also could damage the health and beauty of nearby plants and trees.

- ▶ Keep areas around meters, transformers and other electrical equipment free of any vegetation that could limit utility service access.

- ▶ Before digging, call 811 or the local underground utility locator service to have them mark the location of underground utilities so that accidental contact, damage and injuries can be avoided.

There are many beautiful varieties of tall trees, low-growing trees and shrubs that provide color, screening and shade, and enhance the quality of life in our communities and environment. Consider the types of trees that coexist well with power lines and the environment before you start planting.



PATTIE CALFY | ISTOCK.COM

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 thermo-



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stat, 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.

Prepare for Little Visitors

WITH THE HOLIDAYS come house guest, 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 young children 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.



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Plan Ahead for Youth Tour

THE SCHOOL YEAR IS UNDER WAY, AND SUMMER MIGHT SEEM

like a million years away, but it's not too early for students to start thinking about next year's Government-in-Action Youth Tour. In fact, you might have read recently about June 2017 participants in these very pages.

Adventure awaits when students participate in the Government-in-Action Youth Tour, an all-expense-paid trip to Washington, D.C., sponsored by CECA and other electric cooperatives and organized by Texas Electric Cooperatives.

Youth Tour is an action-packed tour of the U.S. capital with more than 140 students and chaperones from across Texas and more than a thousand from across the U.S. The trip features visits to the Washington National Cathedral, Arlington National Cemetery, Mount Vernon, Smithsonian Institution, memorials and more. Activities include meeting elected officials, learning about rural electrification, seeing a performance at the Kennedy Center and going on a boat cruise with dinner and dancing.

Students can be part of this legacy shared by nearly 4,000 past Texas students who have participated in Youth Tour since 1965.

To apply for the trip, visit our website at ceca.coop. The application can be found under Youth Programs in the blue bar. Simply fill out the application and hit the submit button. It's that easy! While you are there, check out our other programs for students.

For more information, contact our Member Service Department at 1-800-915-2533 or memberservices@ceca.coop, or visit texas.youthtour.org.



TAYLOR MONTGOMERY | TEC

What To Do if the Power Cuts Out

THE HOUSE GOES DARK, AND EVERYTHING INSIDE IS SILENT. NO FANS

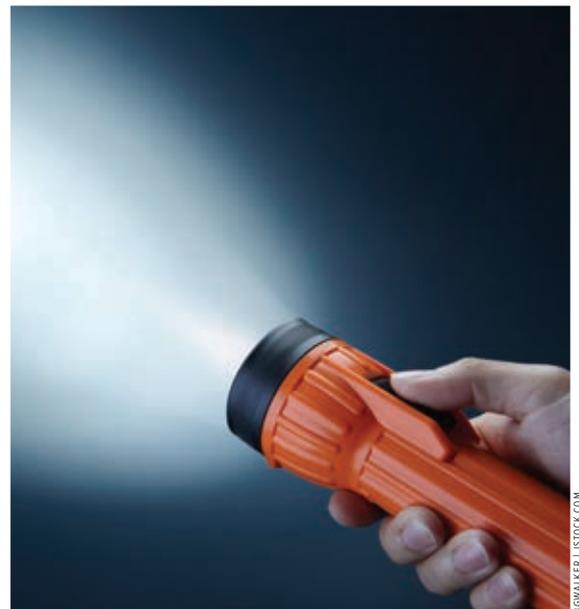
whirring, microwaves beeping or TVs displaying the news. Your power has just gone out, perhaps because of a raging storm outside.

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.



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Be Cool With Space Heaters

Space heaters are meant to provide supplemental heat, not to replace your home's heating system. If used incorrectly, space heaters can pose fire and burn risks.

Safety rules when using your portable electric heater:

- ▶ Read and follow the manufacturer's warnings and the operation and care guidelines before using a space heater.
- ▶ Space heaters need space. Keep them at least 3 feet away from any combustible materials such as bedding, clothing, draperies and furniture.
- ▶ Never use space heaters around unsupervised children or pets.
- ▶ Always turn the heater off and unplug it when leaving the room or going to sleep.
- ▶ Plug the space heater directly into an outlet. Do not use an extension cord.
- ▶ Electric space heaters use a lot of electricity. Plug your heater into a circuit with as little else on it as possible.
- ▶ Space heaters should be used only for supplemental heat. Don't use them to dry clothing, cook food, thaw pipes or warm bedding.

Comanche Electric
Cooperative
encourages you
to always practice
safety.