

Keeping a Secure Electric Grid



MESSAGE FROM GENERAL MANAGER AND CEO JERRY D. WILLIAMS

Many of you probably get tired of a lot of the trash on mainstream TV like me, and channel surf till you find Alaska Gold, Moonshiners, those Duck guys or even Swamp people. A few months ago, you may have seen a movie on one of those channels that was based on the United States electric grid going dark. I guess a national blackout

100,000 volts) that crisscross most of this nation, in a somewhat haphazard pattern. The Interstate Highway system also crisscrosses the nation, but it was a project of the Federal Government and actually has a predetermined pattern. (I10, I20 I30, I40 etc go east and west and I5, I15, I25, I35, I45, etc go North and South) The electric grid is actually a patchwork of transmission lines that were planned and constructed by

to wheel the power for this third party. They created a market for electricity where none existed. This created a situation where transmission lines started to be overloaded and these entrepreneurs purchased power at a low price and tried shipping it over a longer distance to maximize their profit. The end result was a big push to install more sophisticated electronic equipment on the electric transmission lines to increase their efficiency and maximize the middle man's profit. See my February 2011 article in Texas Co-op Power called "Smart Wires" on our website: www.lamarelectric.coop

A tree limb in Ohio in 2003 led to about 50 million people, including New York City, being in the dark. This was a freak event, but after 9-11 all the political guru's were nervous and during the excitement laws were passed and a voluntary industry organization NERC (North American Electric Reliability Council) was changed to a federal bureaucracy called North American Reliability Corporation or NERC. Still seems odd that a federal agency is called a Corporation but then again how does the Federal Reserve Board make any sense. We will hold that for another editorial.

NERC started with a determination that a patchwork of electric transmission lines would be whipped into shape and the latest and greatest electronic controls installed. A basic requirement was that electric transmission data would be transparent and available on the internet. Realizing too late, NERC realized the "modernization" requirement now made the system more vulnerable to computer hackers. The saving grace was that regional transmission organizations pretty much developed their own approach and thus creates some obstacles for a national cascade of problems.



Co-ops across the nation are banding together to protect the security of our power grid.

makes a good setting for a host of problems and thus an interesting backdrop for a lot of drama. My plans were to watch it, but church went a little long and I just forgot. In the yarn spun by the show's writers, a cyberattack causes a lengthy national grid failure, and life without electricity is difficult, as you can imagine.

The program's theoretical plot is, of course, a worst-case scenario with far-reaching consequences that we don't want to experience in real life. It does make one wonder if this could really happen. The short answer is no.

A little history may help you understand what the electric grid is and why this cannot happen. There are a lot of High Voltage wires (Typically over

electric utilities without much assistance from the federal government. These electric transmission lines were primarily constructed to connect one generating facility with other generating facilities and then move the power to electric utilities that distributes the power to the communities (like Lamar Electric).

Everything worked pretty well until companies like Enron entered the picture about 20 years ago and decided they could make money by getting between the folks generating the power and the folks distributing the power. They lobbied the federal government for laws that allowed anyone with a briefcase and a business card to go around buying up power from the electric generators and forced electric transmission line owners



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Your "Local Pages"

This section of Texas Co-op Power is produced by LEC each month to provide you with information about current events, safety, special programs and other activities of the cooperative. If you have any comments or suggestions, please contact the local office.

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Lest you forget, Texas has refused to interconnect with electric transmission lines in other states, which makes us an island, electrically speaking. This also reduces the amount of federal regulations for Texas, and insulates us from any electric grid outage anywhere else in the nation.

The electric cooperatives in Texas, including Lamar Electric have worked diligently with NERC and other federal agencies over the past several years to strengthen reliability and cybersecurity standards for the Texas bulk power infrastructure system, known collectively as the grid.

Rural Electric Cooperatives are on the cutting edge of research into cyber security. Recently, the U.S. Department of Energy awarded \$3.6 million to the research arm of our National Rural Electric Cooperative Association. This research group is to develop cyber security management tools for small utilities. NRECA and Honeywell Corp. plans to provide additional funding for a total of \$4.7 million.

Cyber security research is the big words used when an attempt is made to stay ahead of the computer hackers who have nothing better to do than create problems for someone else.

The research goal is to create a simple, automated network device that will enable small utilities, such as cooperatives, to manage system security more reliably and cost-effectively, according to Craig Miller, chief scientist at NRECA. "The system will simplify cybersecurity management for small utilities with limited IT resources," Miller said, adding that improved security for small systems supplements the security of larger utilities.

No one can guarantee that a large-scale blackout caused by cyber terrorists can't happen but we can be sure they will have to mess with Texas if it affects us. Of course anything connected thru the internet is worldwide. Electric wires may not cross state line, but communications lines do. You can get some comfort from knowing that even small electric cooperatives like Lamar Electric are part of a national effort to protect the reliability and security of our power grid.



*Happy
New Year*

**FROM LAMAR ELECTRIC
COOPERATIVE**

Lamar EC will be closed Wednesday,
January 1, for New Year's Day.

The directors and employees of
LEC hope that 2014 brings peace,
prosperity and happiness to all of
our members.

Prepare for the Worst

It has been 13 years since Mother Nature covered our service territory with a thick layer of ice. I'm sure many folks remember the ice storm of 2000 as if it happened yesterday. We always want storms like that to stay a memory, but you never know when another could hit. Let's be prepared if it happens again! If icing conditions are predicted, you should:

1. Create a weather emergency plan for your family. Enter important numbers in your phone like that of Lamar Electric Cooperative, (903) 784-4303, and those of your closest neighbors and family members.
 2. Fill a backpack or a cooler with a couple of days' worth of food and water. Toss in a flashlight, a portable radio, a first-aid kit, some cash and your medicine. You can take that with you to a shelter, a hotel or a friend's house, depending where you plan to stay until your home is safe to live in again.
 3. When the bad weather starts, turn off your sensitive electronics.
 4. If the power fails, turn off everything except one light so you will know when the power is back on.
 5. Keep extra batteries in multiple sizes on hand. Invest in a battery-operated radio, some reliable flashlights and battery-powered flameless "candles."
 6. Stay far away from fallen power lines and flooded streets. Assume any utility wire that you find on the streets is "live" and could harm you or kill you if you touch it. Call your electric cooperative to report any damaged wires or utility poles.
 7. Teach your children about the dangers of mixing water and electricity. Be clear about the harm electric power lines can cause to anyone who touches them.
- Finally, remember that Lamar Electric employees are working in extremely dangerous and difficult conditions. Your patience and cooperation are appreciated.



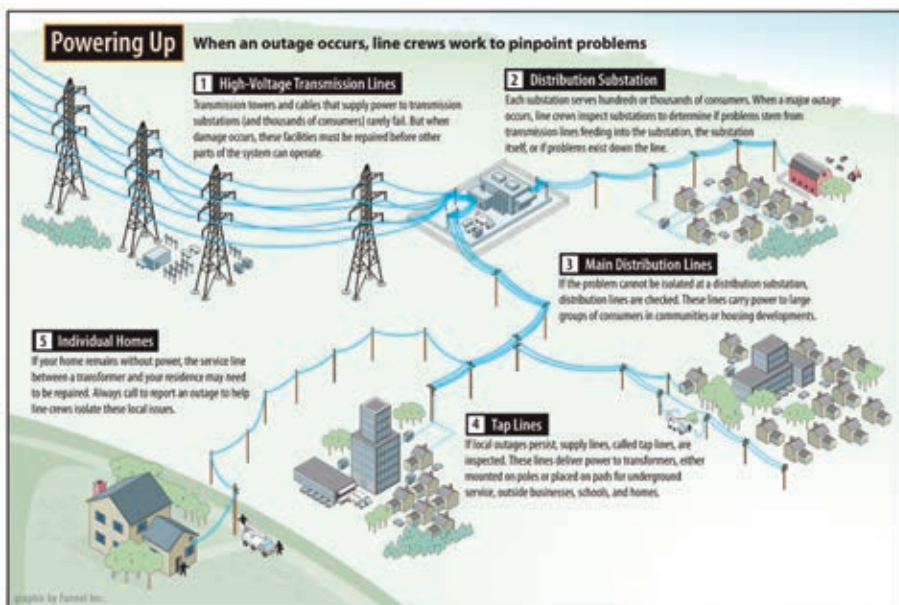
PAUL VASARHELYI | THINKSTOCK

Instead of cranking up the thermostat, slip on a sweater to keep warm.

What Not To Do When It's Cold Outside

Follow these tips to stay safe and save energy during winter.

1. **DON'T OVERSTUFF YOUR REFRIGERATOR.** Stacking holiday leftovers on top of each other and squeezing extra containers of food onto every refrigerator shelf will prevent the air from circulating. That forces the appliance's compressor to work harder and use more electricity.
2. **DON'T CRANK THE THERMOSTAT WAY UP** to heat a cold house in a hurry. Turning the heat up to 90 degrees won't warm a 60-degree house any quicker than turning it up to 72 degrees.
3. **DON'T RUN BATHROOM AND KITCHEN EXHAUST FANS** any longer than you have to. Flip them on to clear smoke while cooking and steam while showering.
4. **DON'T USE A BARBECUE GRILL OR A PROPANE PATIO HEATER INDOORS,** even if your central heating system is on the fritz. This is a fire hazard and can expose you to carbon monoxide poisoning.
5. **DON'T TURN OFF YOUR CEILING FANS.** Ceiling fans can save energy during winter. The trick: Set the spin direction to push air up. In this mode, the blades slant downward. Heat rises, so in the winter, the blades should move warm air toward the ceiling and walls and down into the room.



When electricity goes out, most of us expect power will be restored within a few hours. But when a major storm causes widespread damage, longer outages may result. Co-op line crews work long, hard hours to restore service safely to the greatest number of consumers in the shortest time possible. Here's what's going on if you find yourself in the dark.

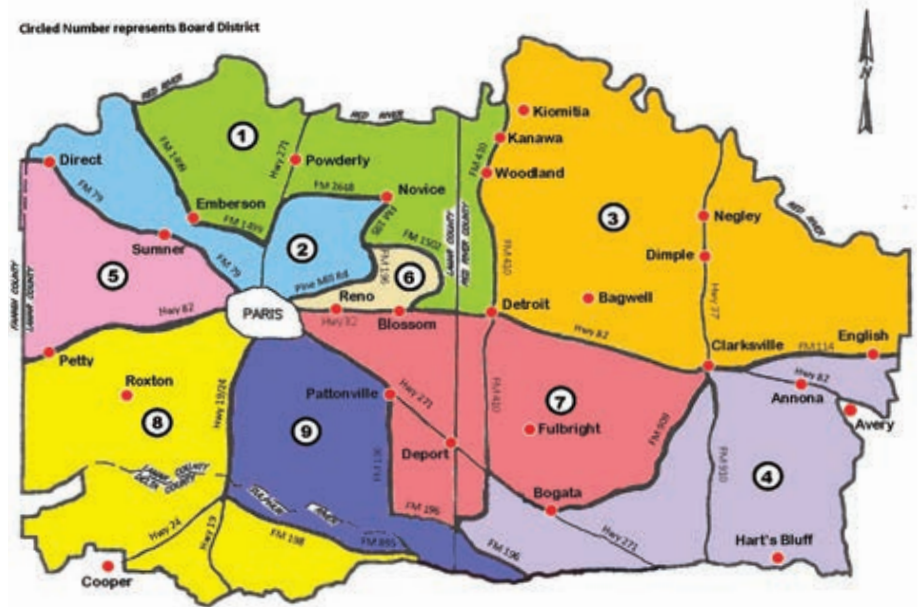
Co-op Annual Meeting Set for April 19

Lamar Electric Cooperative will hold its annual meeting at 10 a.m. Saturday, April 19, at Love Civic Center, 2025 S. Collegiate Drive in Paris. There will be additional information in Texas Co-op Power regarding the meeting over the next few months.

Three positions on the board of directors are up for election each year. This year, Districts 1, 8 and 9 will be voting at the annual meeting. Members residing in Districts 1, 8, and 9 who wish to become a candidate for one of the three available board positions must appear in person at the main office of the cooperative and fill out a nomination form no earlier than January 19 and no later than February 18, as outlined in the co-op's bylaws. If you are unsure of which district you live in, please refer to the district map.

The bylaws below spell out the qualifications to be a board member.

Circled Number represents Board District



EXCERPT FROM LAMAR EC BYLAWS

Article III

SECTION 3. QUALIFICATIONS.

No person shall be eligible to become a board member of the cooperative who:

- a) Has not been a member of the Cooperative for at least one year prior to nomination;
- b) Has not been a bona fide resident of the board district for which seeking election for at least one year prior to nomination;
- c) Is any way employed by or financially interested in a competing enterprise or a business selling electric energy or supplies to the cooperative;
- d) Is an employee of this cooperative or has been terminated from the cooperative less than five years;
- e) Is a close relative of an employee or an employee's spouse ("close" being defined as wife, husband, grandparent, grandchild, parent, child, brother, sister,

step-parent, step-child, step-brother, step-sister, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, and/or sister-in-law);

- f) Has been convicted, pleaded guilty or plead "no contest" to a felony; or
- g) Is an incumbent of, or candidate for, an elective public office for which a salary is paid.

No person shall be eligible to remain a board member who:

- a) Is not a member of the Cooperative;
- b) Is not a bona fide resident of the district for which elected;
- c) Is any way employed by or financially interested in a competing enterprise or a business selling electric energy or supplies to the cooperative;
- d) Is an employee of this cooperative or has been terminated from the cooperative less than five years;

e) Is a close relative of an employee or an employee's spouse ("close" being defined as wife, husband, grandparent, grandchild, parent, child, brother, sister, step-parent, step-child, step-brother, step-sister, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, and/or sister-in-law);

- f) Has been convicted, pleaded guilty or plead "no contest" to a felony; or
- g) Is an incumbent of, or candidate for, an elective public office for which a salary is paid.

Upon establishment of the fact that a board member is holding office in violation of any of the foregoing provisions, the board shall remove such board member.

Nothing contained in this section shall affect in any manner whatsoever the validity of any action taken at any meeting of the board or at any special or annual meeting of the members.

Government-in-Action Youth Tour 2014

Every summer, two Lamar Electric Cooperative-area teens are selected for a weeklong trip to Washington, D.C. This unique trip, called the Government-in-Action Youth Tour, will give them the opportunity to watch history come alive as they explore the capital's museums, memorials and monuments with other students from Texas. They will meet student leaders from nearly every state and hear dynamic leaders on Youth Day.

Bottom line, Youth Tour participants will make friendships that will last a lifetime and be part of a group that has more than 50,000 alumni in every walk of life, including CEOs and U.S. senators.

While in Washington, tour participants from Texas will visit their representatives in Congress, tour the House and Senate Chambers, the Supreme Court and the Library of Congress, and have photo sessions on Capitol Hill and in front of the White House. The group will also see the wreath-laying ceremony at

the Tomb of the Unknowns; see Kennedy's gravesite; tour Arlington National Cemetery, the Lincoln Memorial, Vietnam Memorial, World War II Memorial, and Petersen House; the Smithsonian museums of American Art, Natural History, American History and the Air & Space Museum; Union Station and the Old Post Office Pavilion. In addition, students will visit Pentagon City Mall and the Hard Rock Cafe, experience the Washington at Night Driving Tour, and see the Sunset Parade at Iwo Jima. On the last night in Washington, Youth Tour groups from all states will come together for a dinner and dance.

Sierra Kruse, a senior at Prairiland High School, was selected in 2013.

"The Arlington Cemetery was one of my favorite places. It opened my eyes at how many people have risked their life for this country. Visiting with Congressman Ralph Hall was really cool, too! He was so laid back and talked to us as if he had known us all our life. I would have never thought he was the oldest congressman in

the House," Kruse said. "If the co-op allowed me to enter as a senior, I would do it again and hope I would be selected. This was a trip of a lifetime, and thank you, Lamar Electric, for giving me this opportunity," Kruse said.



TO BE ELIGIBLE FOR THIS YEAR'S GOVERNMENT-IN-ACTION YOUTH TOUR CONTEST, EACH APPLICANT:

- ▶ Must be a sophomore, junior or senior in high school; AND
- ▶ Must live full time in a residence served by Lamar Electric Cooperative OR must attend one of the four high schools serviced by Lamar Electric, which include Detroit, Faith Christian, Prairiland and Roxton. Home-schooled students in homes served by Lamar Electric are also eligible.

HOW TO ENTER:

Let us know a little information about yourself and send us a two-page essay (about 300 words) on "What Would You Change If You Were President?" It's that simple!

Five finalists will be chosen by the co-op staff. After an in-person interview, two students will be chosen.

Information and the application can be found on our website: lamarelectric.coop.

Once the information is entered on the application, simply click on the email button, attach your two-page article (must be PDF or Word format) and send to: dctrip@lamarelectric.coop.

THE DEADLINE IS 5 P.M. FEBRUARY 28, 2014.



2014 YOUTH TOUR APPLICATION

NAME

PHONE NUMBER

NAME(S) OF PARENT(S) OR GUARDIAN(S)

ADDRESS

SCHOOL

LAMAR ELECTRIC ACCOUNT NO.

EMAIL ADDRESS

Applicants hereby acknowledge that the application essay becomes the property of Lamar Electric Cooperative and may be published.

SIGNATURE

DATE