

MESSAGE FROM GENERAL MANAGER AND CEO

JERRY D. WILLIAMS

Who Built the Grid?

AFTER THE WINTER snow and ice storm last February, there has been a lot of discussion about the electric grid in the United States and Texas in particular. Most folks outside the electric industry don't really know much about how the electric grid works or where it came from. I guess you could say they are in the dark about this subject.

If you start the conversation with "What is the electric grid?" most folk's eyes will glaze over and another subject will be injected. I will try to explain some of the history in simple terms. The electric transmission grid in the United States is somewhat like the Interstate Highway System, with some very notable exceptions. Interstates were constructed by the federal government for the basic purpose of national defense. We needed a way of moving military equipment and supplies across the nation.

Moving electricity across the nation was never the intent of the electric transmission grid. It is true the electric grid is a lot of high-voltage electric wires that interconnect across most of the nation, but it was all funded by electric companies to help them move electricity across the area they served, primarily from their generators to their substations. Yes, the Tennessee River area is an exception for another day. Later, the electric companies (which include co-ops and municipal electric systems) discovered they could add short sections of transmission line to interconnect with their neighboring utility. This interconnecting with other utilities allowed the people generating electricity some options. The most typical situation occurred in the middle of the night, when a lot of businesses are shut down and folks are in bed.

Generally speaking, the need for electricity goes way down in the middle of the night and the interconnected transmission lines allowed generators that are not very efficient and had a minimal load to shut down and purchase lower-cost power from their neighbor. The result was a patchwork of transmission lines across the nation that were constructed without any type of overall planning or consideration of moving large amounts of electricity to other areas of the nation based on the cost to generate.

We use the word "transmission" because these wires are usually high voltage, (generally over 100,000 volts) and are used to transmit electricity from generators to substations. This contrasts with the lower voltage "distribution" lines (usually 7,000 to 25,000 volts) that are used to distribute the electricity from the substation to your home.

Over the years, some new transmission lines have been added and others have been upgraded, as middlemen have entered the picture and started buying and selling electricity as a commodity. Rather than each utility making an individual deal with its neighboring utility, the federal government stepped in and "deregulated" the transmission lines with a law that requires any utility (public or private) with transmission lines crossing state lines to carry electricity from anyone as long as the wires were capable of handling the additional load. The enterprising middlemen have pushed each transmission line provider to take more power over the wires in an effort to make money for the middleman, who has only invested in a desk and telephone.

Of course, there is a limit of how far you can efficiently move electricity over high-voltage transmission lines. As the electricity moves through the wires, heat is naturally generated in the wire, and some of the electricity is lost. This all depends on how high the voltage is and how big the wire is. The situation is sort of like the water pressure at the end of one garden hose connected to your house spigot compared to the 10 garden hoses connected together and attached to the same house spigot.

As you may have guessed, Texas is different. All those interconnecting electric transmission lines cover much of the United States in a sort of grid; until you reach the Texas border. With the exception of a small portion of Texas, all Texas electric transmission lines start and end inside Texas. Generally speaking, this removed Texas from many of the federal regulations that have cropped up over the years. Texas has an organization called the Electric Reliability Council of Texas (ERCOT) that sets standards and handles the interconnection of electric transmission lines in Texas. After last February, everyone in Texas has heard of ERCOT. Most folks don't understand that ERCOT has no generators, no transmission lines and cannot turn anything off or on. In summary, ERCOT matches generation to load. They work with existing facilities, because the transmission lines in Texas were pretty much constructed for the same reasons lines were built in other parts of the United States.

As you now know, there really are two electric grids; one in Texas and one in the rest of the United States. That fact didn't really have much to do with last February, because the electric grids in surrounding states were short of generation and had none to send to Texas, even if there had been an available path. Some have said we need a "smarter" grid to go with the 21st century, and that will fix the problems. Next month we will continue the discussion on the electric grid and how adding more intelligence to the electric wires may help you better control your electric bill.



LAMAR ELECTRIC'S mailing address has changed to P.O. Box 68, Blossom, TX 75416. Please send all payments and correspondence to this new address. We will soon close the box at the Paris Post Office to reduce the time spent checking the boxes at two post offices each day.



Happy New Year!

Our office will be closed for the New Year holiday on Monday, January 3rd. As always, crews will be on standby should outages occur.



5225 US Hwy. 82 E • P.O. Box 68 Blossom, TX 75416 **Phone** (903) 784-4303 **Web** lamarelectric.coop

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Jerry D. Williams

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MEMBER BENEFITS

- Level billing
- Automated meter reading
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- Visa and Mastercard accepted
- Prepaid metering

TEXAS CO-OP POWER

Lamar Electric provides *Texas Co-op Power* and TexasCoopPower.com to give you information about events, safety, special programs and other activities of your cooperative. If you have any comments or suggestions, please contact the co-op office.

VISIT US ONLINE

lamarelectric.coop





Check us out at TexasCoopPower.com/lamar



2022 Government-in-Action Youth Tour

EACH YEAR, Lamar Electric Cooperative selects two high school students to attend the Government-in-Action Youth Tour, an all-expenses-paid 10-day trip to Austin & Washington, D.C., where participants tour the U.S. Capitol, meet members of Congress, and visit many historical sites, monuments, and museums. However, this year, the two winners will be provided with a choice – attend Youth Tour or receive a \$1,000 scholarship! The scholarship may be used for expenses related to post-high school studies including college, community college, trade schools and/or technical training.

Who Is Eligible?

10th, 11th, and 12th grade students who live full-time in a residence served by Lamar Electric or attend one of the three high schools served by Lamar Electric which are: Prairiland, Detroit, or Faith Christian. Home-schooled students served by Lamar Electric are also eligible.

How to Apply

Go to https:/lamarelectric.coop/youth and complete the 2022 Youth Tour Application Process which includes: 1) Online application 2) 1–2-minute self-interview video* that includes a personal introduction and your future plans after high school) 3) Written essay** on this year's essay topic: "What are the Future Sources of Electricity in the United States?" For questions or further assistance, please contact us at youthtour@lamarelectric.coop or call 903-784-4303.

Deadline

The application, video, and essay must be received no later than 5pm on January 31, 2022. Submissions must include all 3 elements. Incomplete submissions will not be considered. Winners will be announced no later than February 15, 2022.

*Video specifications: (mP4, moV, or AVi video formats preferred; most common video applications on Android/ iPhones)

**Essay specifications: (2 page minimum, double-spaced, 12-pt. font, 1 in. margins) ●

It's the Law: Move Over or Slow Down



Lineworkers dedicate long hours to ensuring affordable and reliable electric power. Texas' "move over, slow down" law reminds us to do our part to keep our utility workers safe.

Look for flashing lights.

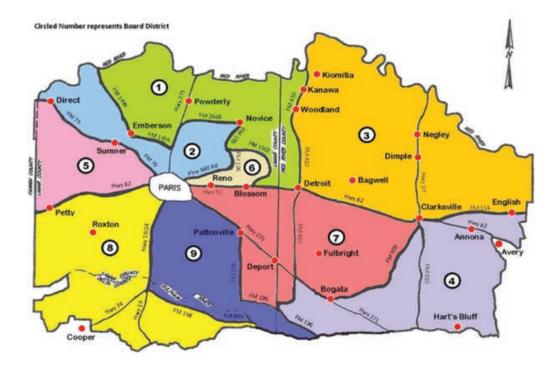
When you see a utility vehicle on the side of the road with its amber and blue lights flashing, move over a lane. When you move over, you're giving workers the room they need to safely complete their work.

Slower is safer.

If you do not have an extra lane to move into, the law requires you to slow down 20 mph below the posted speed limit. A slower-moving vehicle is a safer vehicle.

And keep in mind, significant fines give this law teeth.

Lamar Electric Cooperative encourages you to always practice safety.



Annual Meeting Set for April 23

LAMAR ELECTRIC COOPERATIVE will hold its annual meeting at 10 a.m. Saturday, April 23, at the Cooperative Headquarters, 5225 US Highway 82 East, Blossom, Texas. 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, and this year, districts 5, 6 and 7 will be voting for their directors at the annual meeting. Members residing in districts 5, 6 and 7 who wish to be 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 23 and no later than February 22, as outlined in the co-op's bylaws. If you are unsure of which district you live in, please refer to the district map, above.

Lamar Electric Cooperative Bylaws Excerpt

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, stepparent, stepchild, stepbrother, stepsister, 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, stepparent, stepchild, stepbrother, stepsister, 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.