Lamar ELECTRIC COOPERATIVE
P.O. BOX 580 • PARIS, TEXAS 75461 • (903) 784-4303

Smart Wires

MESSAGE FROM MANAGER JERRY D. WILLIAMS

Various newspaper articles and television programs have been dedicated to the subject of "smart grid" and the resulting "smart meter." A recent poll indicated that most folks outside the electric industry don't really know what a smart grid is. I guess you could say they are in the dark about this subject.

It appears to me we should first answer the question: "What is the grid?" That is where most folks start, if their eyes have not already glazed over and moved on to another article. 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. 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 folks 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.

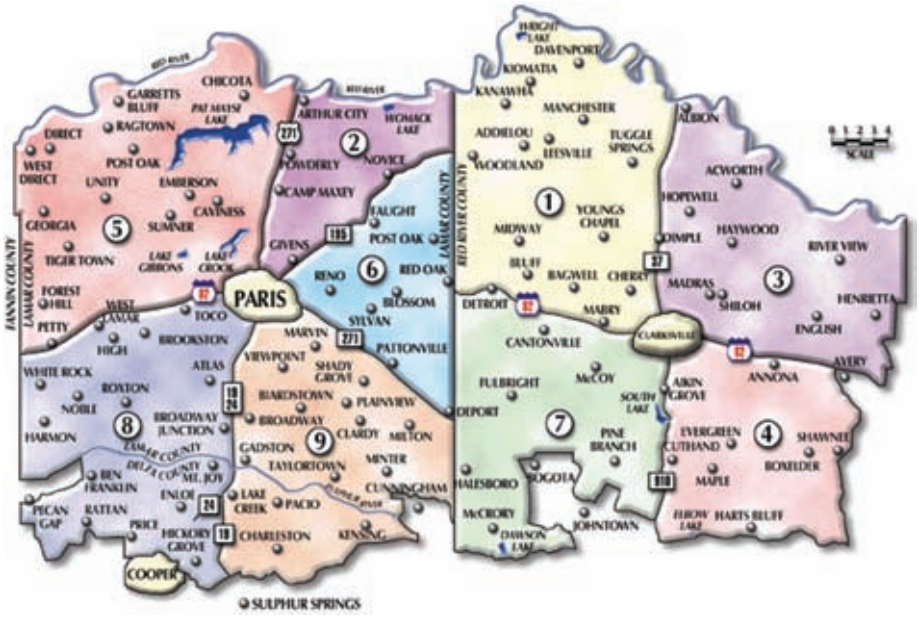
Over the years, some new transmission lines have been added and others have been upgraded, as middlemen have entered the picture and started buying and selling electricity as a commodity. Rather than each utility making an individual deal with its neighboring utility, the federal government stepped in and "deregulated" the transmission lines with a law that requires any utility 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 phone.

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 these 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 Electric Reliability Council of Texas (ERCOT) that sets standards and handles the interconnection of electric transmission lines in Texas. The transmission lines in Texas were pretty much constructed for the same reasons lines were built in other parts of the United States.

So, now you know there really are two electric grids; one in Texas and one in the rest of the U.S. That still doesn't address the issue of a smart grid or a dumb grid. That issue is really all about gathering information and operating devices from a remote location. To really confuse the issue, some folks have started referring to the electric grid as being transmission lines, distribution lines and the smaller secondary wires that enter your home.

Next month we will continue with how these electric wires develop enough intelligence to be called "smart" and how that may help you better control your electric bill.



A Few Days Left to Apply for LEC Board

Three positions on the Lamar Electric Cooperative 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 be a candidate for one of the three available board positions must file an application not less than 60 days (February 8) or more than 90 days (January 9) before the annual meeting date. If you are unsure of which district you live in, please refer to the district map above.

Lamar Electric Cooperative will hold its annual meeting at 10 a.m. Saturday, April 9, at Love Civic Center at 2025 S. Collegiate Drive in Paris. If you have any questions, call Laura Williams at (903) 783-4907.

Qualifications for board members are specified in our bylaws. A copy of the qualification portion of the bylaws was published last month in this magazine. A copy of the bylaws is available at the Lamar Electric office and on our website at www.lamarelectric.coop.

LAMAR ELECTRIC COOPERATIVE

1485 North Main St.
P.O. Box 580 • Paris, TX 75461
Phone (903) 784-4303

For general information and outages after hours, call **(903) 784-4303** local or **1-800-782-9010** toll-free

Operating in Lamar, Red River, Delta and Fannin counties

Find us on the web at www.lamarelectric.coop

YOUR "LOCAL PAGES"

This section of Texas Co-op Power magazine 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.

MEMBER BENEFITS:

- Level billing
- Automated meter reading
- Free bank draft service
- E-Bill
- Visa and MasterCard accepted

Lamar Electric Cooperative

Academic Scholarship Information

This year, Lamar Electric Cooperative will award six $1,000 academic scholarships to students who plan to pursue an academic degree or certification from an accredited university, college or junior college. Scholarship payment will be made directly to the college or university in one lump sum. Scholarships must be used within two years of the award date.

Eligibility Requirements For An Academic Scholarship

To be considered for a Lamar Electric Cooperative Scholarship, the student must:

- Live in the home of a parent or legal guardian who is a full-time resident in the Lamar Electric service area and maintains an active Lamar Electric account in good standing.
- Be a graduating senior attending a high school or an accredited Home Extended Studies program within the counties served by Lamar Electric Cooperative.

Scholarships will be drawn and given away at the Lamar Electric Cooperative Annual Meeting on Saturday, April 9. Students need not be present to win.

Entry deadline is April 8, 2011.

The application can be found on our website, www.lamarelectric.coop.

Once the application is completed, simply click on the e-mail button and send to: scholarship@lamarelectric.coop

Or mail to: Lamar Electric Cooperative
Member Services Department
P.O. Box 580
Paris, TX 75461

LAMAR ELECTRIC COOPERATIVE
2011 SCHOLARSHIP APPLICATION

Deadline is April 8, 2011

NAME _____

ADDRESS _____

NAME OF HIGH SCHOOL _____

PARENTS/GUARDIAN NAME _____

LEC ACCOUNT # _____

PHONE # _____

COUNTRY CORNER EVENTS

February 3-6

Paris Community Theatre presents "Steel Magnolias." 7:30 p.m.

February 5

Blossom Fire Department Chili Supper & Auction. 5-9 p.m. at Blossom Elementary School. For more information, contact Joe Misek at (214) 504-6688.

February 21

Deadline for Youth Tour Applications at Lamar Electric Cooperative. 8 a.m. Applications are available online at www.lamarelectric.coop.

February 24-26

"The Violet Hour" presented by PJC Drama at Ray Karrer Theatre. 7 p.m. For more information, call (903) 782-0327.

If you have any events that you would like listed for Delta, Lamar or Red River counties, please contact Marci Thompson. Information must be submitted two months in advance for the magazine. E-mail marci@lamarelectric.coop or call (903) 783-4911.

Students: Win a Trip to

WASHINGTON, D.C.

The deadline is approaching for high school juniors and seniors to enter the Government-in-Action Youth Tour Contest. Get your entries in by 8 a.m. Monday, February 21.

For more information, go to our website at www.lamarelectric.coop and apply today.

Power TIP

SAVE ENERGY ▪ SAVE MONEY

Leaky faucets can be sending your dollars down the drain: A leak of one drop per second from a water faucet can waste as much as 48 gallons of water a week. And if that's a hot water leak, you're wasting the energy to heat it as well.

NEW SPRING 2011 CONTEST!

TEXAS CO-OP POWER

Co-op Teens Power Texas

SHOOT A VIDEO AND WIN $1500!

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