MESSAGE FROM GENERAL MANAGER AND CEO

JERRY D. WILLIAMS

Is Solar For Me?

SALESMEN FOR RESIDENTIAL solar panels have recently been busy in North Texas. Several members have recently asked if they should buy solar panels for their home. I have written articles on this subject in the past, but perhaps it is time to do an update. The short answer is maybe, but it is a big investment that may take a long time to break even. Lamar Electric is neither encouraging nor discouraging the installation of solar panels for residential uses.

Perhaps I can clear up some of the confusion about what they cost, who pays who, what happens to the power and what Lamar Electric will do. One of the most important things to remember if you are seriously considering solar panels, is to call Lamar Electric and let us help you understand exactly the size of your electric load (in watts).

As your Cooperative we want our members to be informed so you can determine what is best for you. Solar panels installed at commercial locations are different, so for purposes of this article, we will concentrate on a permanent residence. If you have a question about solar panels for a commercial purpose, we will be happy to answer your specific questions, so just give me a call.

Tax credits or rebates are usually the first question. In 2020, there is a federal tax credit of 26% which is supposed to go down to 22% next year before it goes away in 2022. A tax credit is not the same as a tax rebate. It is simply a credit you can take against the amount of taxes you owe. Most folks only remember their "tax refund check". Over simplified, your tax refund check is the amount withheld from your paycheck compared to the amount of income tax you owe. If you do not owe any taxes after deductions, the "credit" is of no value to you.

A tax credit only helps you at the end of the year when you pay taxes. You still have to pay or finance 100% of the solar system when it is installed. Neither Lamar Electric nor the State of Texas offers any type of rebate for solar panels.

Many ask if solar panels will reduce their bill to near zero. Solar panels will reduce your electric bill some, but most likely no more than about 30%. Currently, residential solar installations less than 50 KW will usually qualify for net metering by Lamar Electric. "Net Metering" has a lot of definitions, so you need to be cautious. Basically you are charged for all energy provided by Lamar Electric, while allowing you to not be billed for energy generated by the solar panels and simultaneously used at your residence. Simply put, energy generated by the solar panels and immediately used by your residence will be deducted from your total energy consumed at the residence. The result is you receive retail value for the energy you consume as it is generated by your solar panels and you pay Lamar Electric for all energy you receive from Lamar Electric. The savings on your electric bill will essentially be the electricity used at your home while the sun is shining. The result is more savings in the summer and less in the winter.

Be cautious when calculating your savings and

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breakeven point. The current net billing procedure is very beneficial to the members that have solar installations, but there is a shifting of true cost to provide electric service that is involved. In other words, if a lot of solar installations are made, the policy may have to change to keep other members from subsidizing the members with solar installations.

Oversizing a solar installation is generally not economical because excess energy not consumed onsite is not purchased. You cannot carry over any excess electricity generated or "bank" the daytime generation and use it at night. If you prefer to purchase a solar system larger than your average daytime load, you may wish to consider an alternate approach. You can request to be considered to have a QF facility instead of the standard net billing.

As a result of the Public Utility Regulatory Policies Act (PURPA), the FERC (Federal Energy Regulatory Commission) has provisions for solar installations that are considered "Qualifying Facilities". At this time, Lamar Electric will recognize residential solar installations that wish to be considered a "Qualified Facility" or "QF" and purchase all energy generated by the solar panels at our incremental avoided cost, while charging retail rates for ALL energy consumed at the residence. We only have a couple of these QF accounts and generally their electric bill is a few dollars more each month compared to what it would be under net billing.

Most homes have a 10 or 15 kVA transformer; therefore it is likely you will not need anything bigger than approximately 5-10 kVA of solar panels. You can expect to pay about $2 per watt. A 10 KW solar system will likely cost you about $20,000 or more and generate about 1,000 kWh per month in the summer. If your home is using only 400 kWh per month while the sun is shining, the result will be 600 kWh per month excess generation that does not help you under net billing.

This month a residence using 1,000 kWh is paying Lamar Electric $97.42 plus the $12.50 Customer Charge less the current Power Cost Recovery Factor of $0.004 per kWh or Credit $4. This totals $105.92. Assuming you paid $20,000 for the solar system and received a tax credit of $5,200 at the end of the year, the net investment would be $14,800. If the solar system provided 400 kWh for daytime use, you would receive a bill for 600 kWh or $68.55. That is a savings of $37.37 for the month. The simple breakeven using this example is 33 years. If a 5 KW solar system will generate those same 400 kWh per month while the sun is shining, the result will be the same $37.37 per month and a breakeven of about 16 ½ years.

Many states that have a lot of residential solar panels installed have started eliminating net billing and leaning toward avoided incremental cost. This should be a consideration but should not be a major change. Currently Lamar Electric has less than 40 homes with solar panels but a change to avoided cost would most likely be about the same as net billing.

Another issue to consider is degradation. Every solar panel will start to degrade as soon as it is installed. Depending on the particular material used and the manufacturer, you can expect the panels to degrade 1% to 2% per year. Currently, the average life of a solar panel is considered to be about 25 years.

Exposure to scorching rooftop temperatures will increase the degradation as well as how much the surface gets scratched due to cleaning. Most of the panels being installed today are not as subject to hail damage as in the past, but very large hail could be a problem. Ask your insurance agent if the solar panels would be covered for hail and wind damage. If you have a shingle roof that is subject to hail damage, you may find your insurance company expects you to remove and re-install the solar system in order to get a replacement roof.

Solar panels can be a complex topic. If you are considering having them installed, give us a call. ■

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Contact Us

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MEMBER BENEFITS

- Level billing
- Automated meter reading
- Free bank draft service
- E-Bill
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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

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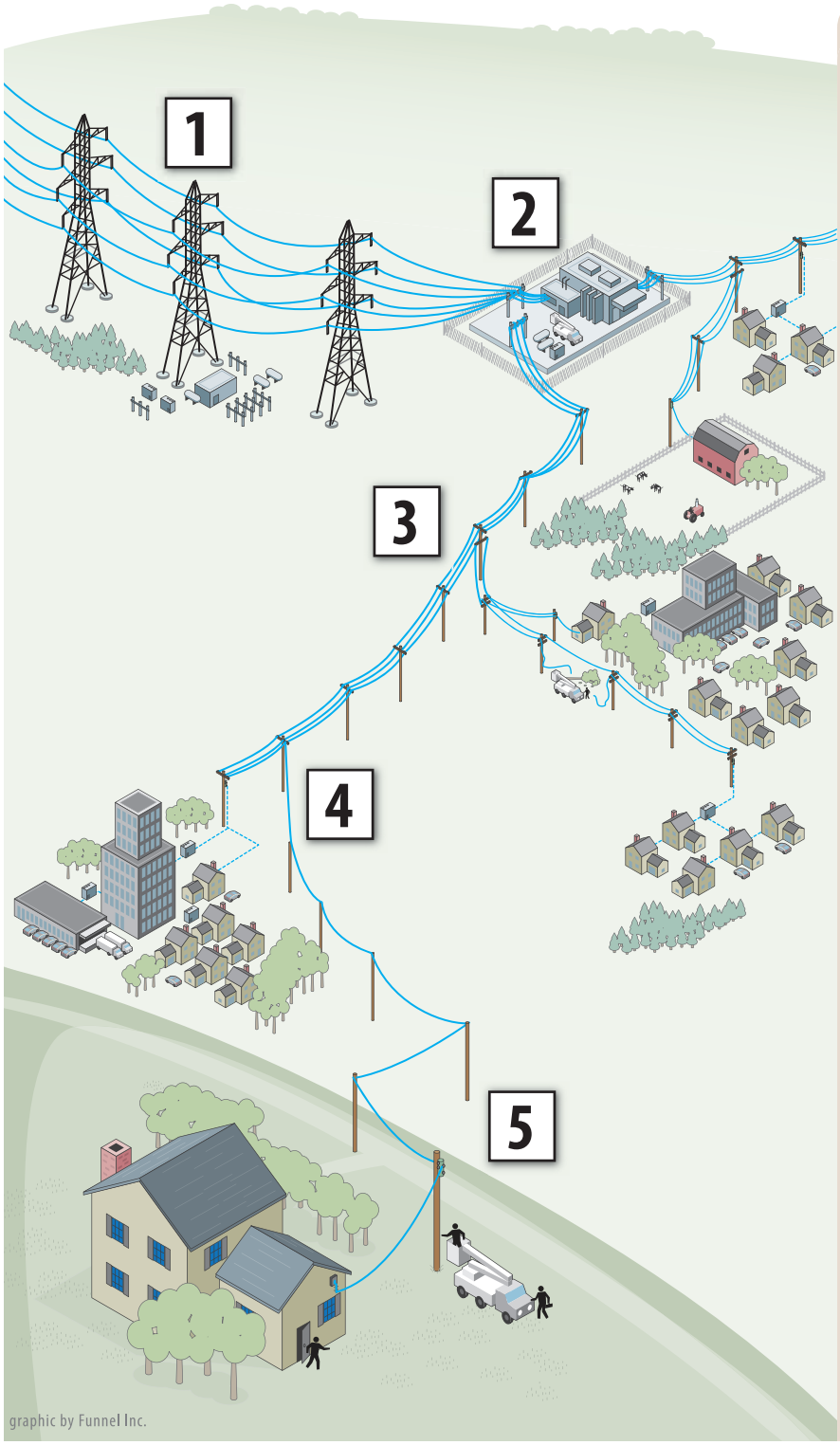
Powering Up

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.



1 High-Voltage Transmission Lines

Transmission towers and cables that supply power to transmission substations (and thousands of members) rarely fail. But when damaged, these facilities must be repaired before other parts of the system can operate.

2 Distribution Substations

Each substation serves hundreds or thousands of consumers. When a major outage occurs, line crews inspect substations to determine if problems stem from transmission lines feeding into the substation, the substation itself, or complications down the line.

3 Main Distribution Lines

If the problem cannot be isolated at a distribution substation, distribution lines are checked. These lines carry power to large groups of consumers in communities or housing developments.

4 Tap Lines

If local outages persist, supply lines, called tap lines, are inspected. These lines deliver power to transformers—either mounted on poles or placed on pads for underground service—outside businesses, schools and homes.

5 Individual Homes

If your home remains without power, the service line between a transformer and your residence may need to be repaired. Always call to report an outage to help line crews isolate local issues.

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Use Ladders Safely Outdoors

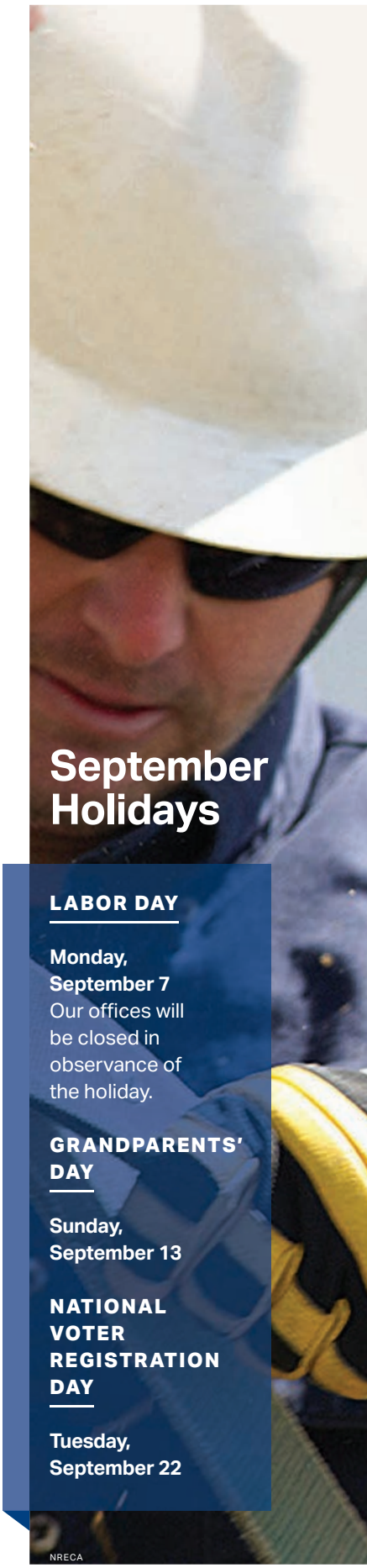
ANYONE WHO USES a ladder should take extra precautions when working outdoors around electrical hazards—to prevent shock or electrocution.

The National Institute for Occupational Safety and Health has recommendations for work sites that can be applied to anyone using a ladder—whether for personal use or on the job.

- Before using a ladder, identify nearby overhead power lines. Note their distance from work areas and always assume power lines are energized.
- Consider the length of the ladder you're using, allowing room for raising and lowering the ladder.
- Contact Lamar Electric if work needs to be done near overhead power lines.
- Don't use metal ladders near power lines.
- Ensure conductive objects are kept at least 10 feet away from lines.
- Make sure that ladders are stable, level and supported to prevent movement into a power line.
- Carry ladders horizontally, not vertically, and have someone help carry and set up large ladders.
- For every 4 feet between the ground and the upper point on which the ladder rests, set the feet of the ladder out 1 foot horizontally.
- Never touch a person or ladder that has made contact with an overhead power line. Call 911 and Lamar Electric immediately.

Falls are always a possibility when using ladders. Follow these guidelines from the Occupational Safety and Health Administration to avoid a spill.

- Inspect ladders for damage before use.
- Only use ladders on stable, level surfaces.
- Always face the ladder and maintain three points of contact when climbing it.
- Do not use a ladder while it's in a closed position.
- Do not use the top step of a ladder unless it was designed for that purpose.
- Do not move a ladder while a person or piece of equipment is on it.
- Observe the maximum load rating of the ladder and be aware of the user's weight combined with any equipment.
- Place nonfolding ladders so that they extend at least 3 feet beyond the point of support.



NRECA

September Holidays

LABOR DAY

Monday, September 7
Our offices will be closed in observance of the holiday.

GRANDPARENTS' DAY

Sunday, September 13

NATIONAL VOTER REGISTRATION DAY

Tuesday, September 22