

Is Solar for You?



MESSAGE FROM GENERAL MANAGER AND CEO JERRY D. WILLIAMS

IN THE PAST FEW MONTHS SEVERAL PEOPLE

have asked me if they should purchase Solar Panels for their home. The short answer is maybe, but it is a big investment. Lamar Electric is neither encouraging nor discouraging the installation of solar panels for residential use. There does seem to be a lot of confusion about Solar Panels, what they cost, who pays who, what happens to the power, when the breakeven point is reached and what Lamar Electric will do. Once you are informed, you may decide solar panels are a good investment or you may forgo the risk.

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 solar panels installed at 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. I am not a tax professional, so this information is simply my understanding and should be checked with someone who makes a living doing tax returns.

The biggest question seems to be about tax credits or rebates and the urgency to "buy now" before they expire. Neither Lamar Electric nor the State of Texas offers any type of rebate for solar panels. There is a federal tax credit of 30% of the cost of the system. There is a big difference between a tax credit and a rebate.

It is hard to explain a "tax credit" because most folks only remember their "tax refund check." Over simplified your tax refund check is the amount withheld from your pay check to pay income tax compared to the amount of income tax you owe. The "Solar Tax Credit" can only be applied toward federal income taxes "owed". If you have a lot of deductions that result in no federal income tax owed, the solar tax credit is of no value to you.

An example would be spending \$20,000 for a solar system. When you prepare your taxes at the end of the year, you can include a \$6,000 tax credit (30% of \$20,000). This \$6,000 tax credit can be applied to any taxes you owe, but it is not a "refundable" credit (the government will not write you a check for the credit, like an earned income or child credit). Assume your federal income tax for the year is \$12,000 and your employer withheld (deducted for income tax) \$14,000 from your pay checks for the year; you would normally get a tax refund of \$2,000. After paying for a \$20,000 solar system (yes

you have to pay for it or finance it when it is installed), your \$12,000 federal tax owed would be reduced by \$6,000 which means you would get an \$8,000 tax refund. Yes, the refund check went up by \$6,000 but you had to pay the solar contractor \$20,000 to get the additional \$6,000 from the federal government. The credit simply reduces the amount of taxes you owe. At the end of the day, a tax credit doesn't give you any more money because you either pay the solar installer or the federal government.

If you find that after all your deductions your federal income tax is only \$4,000, then your solar tax credit would only be \$4,000 for the year with a carryover of \$2,000 for future years. Your carry over is only good for 5 years. If the solar credit reduces your owed taxes to -0- you would get the full \$14,000 back that was deducted from your pay checks by your employer and likely increase your refund by \$2,000 the following year.

As of now the federal solar tax credit will be phased out between now and January 1, 2022. The credit is scheduled to be 30% through 2019. In 2020 the credit drops to 26% and drops to 20% in 2021 before it goes away in 2022. There is a lot of skepticism about when the credit will actually end. The first solar tax credit was in the Energy Tax Act of 1978 under Jimmy Carter but expired in 1985. George W. Bush brought the tax credit back in 2005. The current tax credit has been set to expire several times since 2005 but has been extended every time. Some feel the phase out instead of simply expiring is a signal the tax credit will actually end this time.

Since 2008 Lamar Electric has been net metering residential solar installations. There are a lot of definitions for "net metering" so you need to be cautious. Basically we net your residential kWh usage each billing cycle (monthly) against the total kWh delivered by the solar panels. For example if your home uses 1,000 kWh and the solar panels generate 400 kWh during the billing cycle; you would get a bill from Lamar for 600 kWh. If the solar panels generated 1,000 kWh during the billing cycle; your bill from Lamar would only be the \$12.50 base customer charge.

Pretty much all electric meters nowadays are digital but in theory we allow you to generate more electricity than is being used during daylight hours (some will say turning the meter backward) and then consume the daytime excess power during the night time. This works pretty good for folks that work during the day and consume most electricity after 5 pm. Do not



oversize the system, because we do not carry over any excess electricity generated from one billing cycle to the next so you cannot "bank" the power in the summer for use in the long winter nights. Also, any power generated during the billing cycle in excess of the amount consumed will go back into the grid without any compensation. In other words your bill will never be less than the \$12.50 customer charge and regardless of how much the solar system is oversized; Lamar never pays you.

By net billing Lamar is actually giving you full retail value for every kWh generated by your solar panels and consumed by your house during each billing cycle. This process will maximize the value of the solar panels to you but not fully compensate Lamar for providing peak power in return for off peak power generated by the solar panels. The subject gets complicated but the bottom line is there is currently a cross subsidy being given to owners of solar panels. Net metering may change in the future to reimbursement of avoided cost or some other theory.

Most homes have a 10 or 15 kVA transformer; therefore it is likely you will not need anything bigger than approximately 10 kVA of solar panels. That is equal to approximately 10,000 watts of panels. Buying an oversized solar system is not likely to be economical for you, but it will increase the sale for the contractor. You can expect to pay about \$2 per watt. At 10KW system will likely cost you \$20,000 or more and generate about an average of 1,000 kWh per month.

This month a residence using 1,000 kWh is paying Lamar \$97.42 plus the \$12.50 Customer Charge. Assuming you paid \$20,000 for the solar system, received a tax credit of \$6,000 at the end of the year, and the system generated exactly the same amount of electricity each billing cycle as you used (assume 1,000 kWh per bill); your



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monthly electric bill would be \$12.50 which is a savings of \$97.42 per month. Saving \$97.42 per month means you could break even at the end of 12 years ($\$14,000 / \$97.42 = 144$ months) before considering other issues. Of course if you have a larger home, using 2,000 kWh per month, you could simply double these numbers and the payback would still be 12 years.

Many states that have a lot of residential solar panels installed have started eliminating net billing and leaning toward avoided cost. This should be a consideration. Currently Lamar Electric has less than 25 homes with solar panels but a change to avoided cost would most likely reduce the savings to half of the savings under net billing. This could leave you with a 24 year break even on an investment with a 25 year expected life.

The first “other 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 manufacture, you can expect the panels to degrade 1% to 2% per year. At the end of 10 years, your panels could be generating around 800 kWh per month, instead of 1,000 kWh. The best time to ask about the degradation rate is before you buy and compare to other panels. An independent laboratory is probably your best source. Degradation could increase the break even time by about a year or so. Currently the average life of a solar panel is about 25 years.

Exposure to scorching rooftop temperatures will increase the degradation as well as how much the surface gets scratched due to cleaning. The freeze/thaw cycle is not as big of a deal in our area but should be considered. Most of the solar 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 are covered for hail and wind damage.

Installation on the rooftop has some advantages and disadvantages. 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. This could result in a pretty big expense.

For those of you that want to “go green” and save the planet, you should consider that Texas currently has more wind and solar generated power going into our electric grid than any other state in the USA. Last year 18% of all kWh generated in Texas (ERCOT) came from wind and solar. The number is over 40% during certain hours. Since all electricity generated in Texas goes into the Texas (ERCOT) grid and Lamar Electric buys power from the grid; you could consider that a lot of your power is already green power.

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

Go Back to School With Energy Savings

THE KIDS HAVE NEW BACKPACKS, NEW bedtimes, new routines and new homework every night. Heading back to school has kids using a lot more energy—and not just their own.

They need energy to power back-to-school devices, including the computers they use to type up their papers and the lights they shine late into the evening.

Here are some environmentally friendly and energy-saving back-to-school tips:

- ▶ Teach your children how to put the computer into sleep mode when they are finished using it, even if they plan on returning later. Electronics in sleep mode use about 80 percent less electricity than they do on full power.

- ▶ In the market for a new computer? Choose a model with an Energy Star rating, which will use 70 percent less electricity than those without it.

- ▶ Desk lamps create a productive work environment without wasting excess light. Replace incandescent light-bulbs in lamps with LED bulbs.

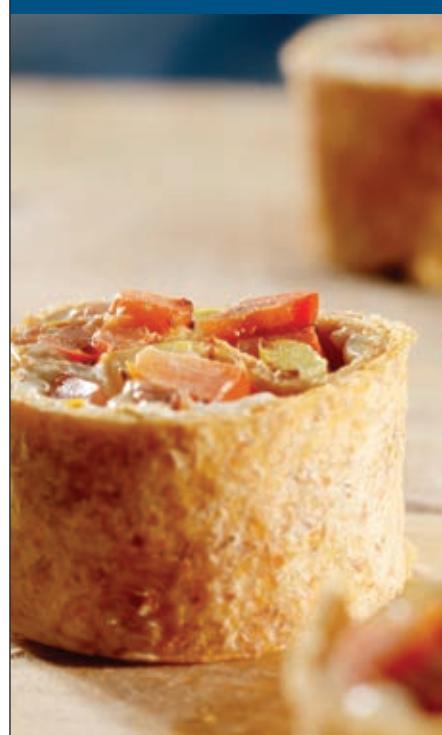
- ▶ Do a thorough inventory of school supplies before heading to the store to buy more. You may find that you need less than you think. When you buy, choose discounted bulk packages.

- ▶ Use lunch boxes instead of paper bags to save money and reduce waste.

RECIPE OF THE MONTH

Roping Champion in the Family

GATZ MICHAEL, GRANDSON OF LAMAR ELECTRIC EMPLOYEE DANNY MICHAEL, RECENTLY won a 2018 Chevrolet truck. Michael was the high point roper in the national 2018 Original Team Roping Association Finals in Abilene. In addition to winning a truck, Michael also won a Cactus Saddlery saddle and breast collar plus many other prizes, including cash. Michael, right, receives the keys to his new truck.



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Cajun Pinwheels

1 package (8 ounces) cream cheese, softened
Dash salt and pepper
½ teaspoon cayenne pepper
¼ cup black olives
¼ cup green olives
2 tablespoons finely chopped onion
1 cup Monterey Jack cheese, shredded
1 pound cooked salad shrimp, deveined and chopped
7 flour tortillas, room temperature

1. Combine cream cheese, spices, olives, onion, cheese and shrimp in a small bowl. Stir well.
2. Spread mixture over each tortilla, then roll tightly.
3. Cover with plastic wrap and chill in refrigerator at least 2 hours.
4. Slice rolls ½-inch thick and layer on platter.



Happy Labor Day! We will be closed Monday, September 3, for the holiday. As always, crews will be on standby in the event of an emergency.

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Tony Corso Images



BY KATIE MORRIS

TONY CORSO, A WELL-KNOWN LOCAL photographer, sat down for coffee with me one recent morning. During our conversation, he was greeted by many people passing by and was clearly well-connected. Corso gets his notoriety from the amazing photographs he takes of people, events and nature. He always has been a photography fan, but that has not always been his full-time job. In fact, the only formal training Corso has received in photography was in his seventh-grade photography class, where he learned about film development in a darkroom.

Corso was born in California and, in true Army brat style, has lived all over the world, graduating from an American high school in Germany where he met his wife, Kathy. Corso had a great conversion experience and began living his life for Christ, which led him to Paris, Texas. He worked as a pastor for many years, first in the Cunningham community then in the Minter community.

But he quickly realized that he was going to need a side job in order to support his wife and three daughters financially. He drove a bus for five years, then got his teaching certificate and began teaching junior high reading and English for Prairiland Independent School District in 1996. He retired from teaching three years ago and now has returned to his passion for photography full time.

During high school and his first year of college, Corso took photos for his yearbook and local newspapers, considering it just a fun hobby. As we all know, adulthood comes with certain responsibilities, and one can quickly run out of time for hobbies. By the time Corso decided to pick up his long lost love for photography in the early 2000s, cameras had changed drastically. Digital photography had swept the photography industry, and as a low-tech fellow, Corso was slightly intimidated. He got himself a digital single-lens reflex, or DSLR, camera and learned how to use it by watching YouTube videos and reading forum postings by other photographers online.

The more he learned, the more Corso fell in love with the

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TONY CORSO

1. This is a “bucket list” shot Tony Corso has wanted for a while. This spring, he finally captured this moment while taking photos of the Dallas skyline. His proximity to Dallas Love Field Airport made the shot possible.

2. William Schiff, 94, a Holocaust survivor imprisoned at Auschwitz, holds his 7-month-old great-grandson.

3. Corso and his drone (in white).

4. Corso captured this photograph of an eagle in northwest Lamar County this past spring.

5. Corso enjoys photographing local events and often can be spotted with a camera in hand.

6. Corso in action with a telescopic lens.

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JOE WATSON

art of photography. He talked of photography as if it were an old friend. When asked why he enjoys photography so much, he easily answered, “There is a difference between just getting a picture and taking a photograph. There are those occasions where I can capture a moment. It is always a blessing to me when I am able to capture a moment.”

Corso enjoys the thrill of chasing a storm to get a great photo. He enjoys snapping a photo right as a football player makes a game-winning touchdown. He researches lunar activity, anticipates weather events and waits patiently for the perfect lighting outdoors. Mostly, he enjoys bonding and interacting with his subjects. Whether it’s cutting up with high school students at their senior photo shoots or making a bride laugh to get the perfect smile, Corso’s favorite part of photography is the people.

One of Corso’s favorite photo projects was his Holocaust Survivor Project. As a teacher, he always assigned a reading on the Holocaust and would take his students on a field trip to the Dallas Holocaust Museum. In 2011, he introduced himself to the director of the museum and offered his photography services. A short time later, the museum director called him up and asked for his help with a project to document some Holocaust survivors living in the Dallas area.

Corso visited the survivors’ homes, talked to them, listened to

their stories and photographed them in their current environments. Some had passions of sewing, while others simply enjoyed the family that surrounded them. One survivor in particular had a 7-month-old great-grandson. Corso got a breathtaking shot of this survivor’s tattoo from his imprisonment at Auschwitz next to his sleeping grandson. The very marking that could have ended his life contrasted with the legacy he has created is a moment Corso is very proud of capturing.

It’s moments like these that spur on this local photographer. His photos were later featured in an exhibit at the Dallas Holocaust Museum.

One morning a few years ago, Corso and his wife were watching television when they saw video of a man and his drone, a remote-control flying camera rig. The video made the couple laugh, and Kathy said, “Why don’t you have one of those?” Corso paused and just had to smile. “I’ll look into it!” he said.

A few weeks later, Corso was launching his drone and began taking aerial videos. Several of these videos have been featured on television news networks and social media. He shares many of his photos freely for the public’s enjoyment and entertainment. His storm and flood photos are well-known in our area.

To learn more about Corso and follow his photography and the stories behind it, visit his website, tonycorsoimages.com, or like his Facebook page, Tony Corso Images.