ELECTRIFY AND SAVE

RESIDENTIAL SOLAR

Curious about solar generation? You're not alone.

By the end of 2020, approximately 2.7 million homes in the U.S. had residential solar systems. Find out if solar is the right investment for you

Learn more at www.tristate.coop/be

TRI-STATE

CONSULT WITH YOUR LOCAL UTILITY

Before you invest in solar, consult with your electric cooperative or public power district (PPD) about which options are available to you and what the project will entail.

It's important to understand how solar works with your utility's system. While solar power can offset most of your energy needs during the day, it cannot cover all of your needs, particularly during the nighttime or on a cloudy day.

To ensure that you can always power the appliances, lighting, and HVAC systems in your home, you'll still need to be connected to your electric cooperative or PPD's power lines. Every utility sets policies and rates for connecting solar panel systems to their lines and the grid. Before installing solar you need to talk to your electric cooperative or PPD about all connection-related details.

+ CONDUCT AN ENERGY AUDIT

By investing in solar you are adding value to your property. Your investment is optimized by first increasing the efficiency of the building. Your electric cooperative or PPD may offer an energy audit to identify leaks that need sealed or areas that need additional insulation. This simple step will help decrease the size of solar system you need. Some lenders will even allow you to bundle efficiency retrofits into the financing for solar and may have more competitive interest rates exactly for these types of projects.

+ CHOOSE A CONTRACTOR/INSTALLER

There are many local energy experts to rely on when choosing a reputable contractor and installer. Start with your electric cooperative or PPD and be sure to get quotes from at least three businesses. It's also a good idea to ask for references from past customers.

⚠ BUYER BEWARE

No energy is free. A common sales tactic solar companies use is telling buyers their electricity will be free, they may even say your utility will pay you for the excess energy generated. This is not always true. Call the phone number on your utility bill to discuss solar details.

Note: Some solar systems can take up to 20 years or longer to see a return on investment.

+ OUTLINE UPFRONT AND ONGOING COSTS

Ask your electric cooperative or PPD to review your past energy usage to determine the size and type of solar panel system best suited for your home. If possible, an average energy usage from the past three years is ideal for sizing a solar system. Once you've decided on a solar panel system, work with your contractor to buy or lease the equipment, and have it installed. Whether purchasing or leasing, be sure and understand the terms and conditions surrounding your new solar investment.

In addition to installation fees, it is important to consider other costs including interconnection costs, insurance, taxes, and maintenance. While most rooftop solar systems are designed for limited maintenance and cleaning, choosing a reputable installer with a good customer track record will help ensure the system runs optimally. Your utility likely does not sell, install, or maintain solar systems so you are solely responsible for your solar panel system, including meeting your utility's interconnection agreement.

+ TAKE ADVANTAGE OF INCENTIVES, REBATES, AND TAX CREDITS

There are several resources available to homeowners interested in installing solar. Your electric cooperative or PPD, as well as your contractor, can to inform you on which opportunities are available to you and could help you save time and money. There may be a solar cooperative or group buy-in program operating in your area. Group buy programs and co-ops negotiate a decreased price for participants and advocate for pro-solar policies.

+ SOLAR BUDGET CALCULATOR

FACTOR	COST
Equipment	$
Installation and permits	$
Interconnection cost	$
Insurance	$
Taxes	$
Maintenance/Repairs	$
Updated electric panel, wires or meter	$
TOTAL	$

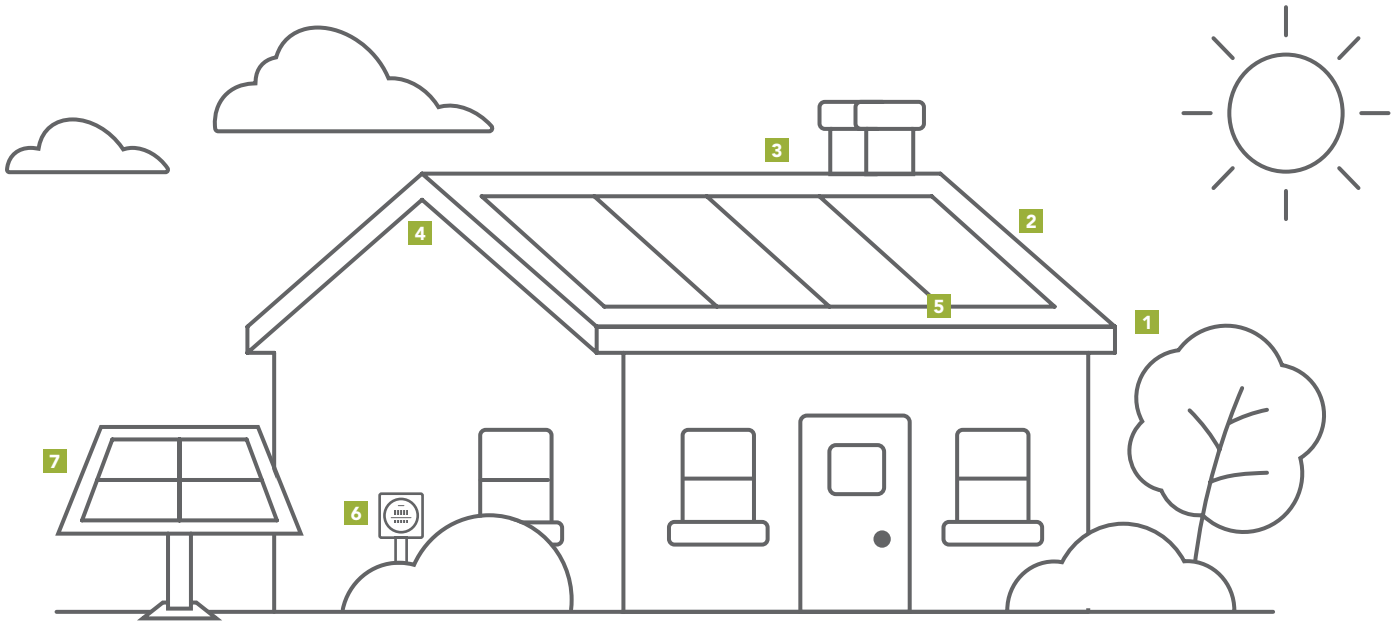
WILL SOLAR SAVE YOU MONEY?

It depends! The amount you save is dependent on how much electricity you consume, the size of your system, if you're buying or leasing, and how much energy your panels can generate based on the amount of sunlight your roof receives.

CONSIDER COMMUNITY SOLAR

Community solar is a great option for those who either can't afford a residential solar system, don't own their home, or don't have a home that can support a solar panel system. Community solar, or shared solar, is available to households and businesses to help solve these issues. With a community solar subscription, the utility bills are credited with the customer's share of the electricity generated by the community solar garden. Talk to your electric cooperative or PPD about a community solar purchase option.

7 CONSIDERATIONS BEFORE GOING SOLAR



1 ADEQUATE SUNLIGHT

Homes with large trees or buildings shading the roof may not produce enough electricity to be worth the investment.

2 ROOF HAS BEEN REPLACED RECENTLY

A roof towards the end of its life needs replaced prior to going solar to avoid panels having to be uninstalled and reinstalled in the future.

3 SPACE FOR SOLAR PANELS

Solar panels produce the most amount of electricity when they're south-facing. If your south-facing roof is too small for panels, east and west-facing roofs also work well.

4 TILT ISN'T TOO STEEP

Solar panels can be installed at almost any angle but the steeper the tilt of your roof, the more expensive installation will be. Flat roofs may also be more expensive as they require additional equipment during installation.

5 SUITABLE ROOFING MATERIAL

Most roof materials can support solar panels but some, like wood shake and tile, don't make a good surface for solar panels.

6 HOME UPGRADES

Some homes may require necessary upgrades to support solar including a new electric panel, a separate meter and/or electrical wiring.

7 GROUND-MOUNT SYSTEMS

If you have the yard space, a ground-mount system allows your installer to place the panels in an ideal position to maximize solar energy production. Some ground-mount solar panels are able to track the sun over the course of the day to produce a third more energy. Keep in mind, ground-mount systems require additional equipment and labor therefore are higher budget.

WHAT IS YOUR HOME'S PRODUCING POTENTIAL?

To estimate the energy production and cost of energy of grid-connected energy systems, the National Energy Laboratory developed a free tool called PVWatts. Get an idea of how much power your panels are likely to generate at pvwatts.nrel.gov. *Note: PVWatts only provides an estimate. Work with a licensed solar installer for a custom quote.*