



## 10 STEPS TO TAKE BEFORE INSTALLING SOLAR

As your Touchstone Energy cooperative, we want to be your source for energy and information. Since solar power generation is rapidly becoming more widely available, we put together this information to help answer questions you might have. Contact us for more information about solar.

### 10 STEPS TO TAKE BEFORE INSTALLING SOLAR

As prices decline and technology improves, installing a residential solar system—also called a photo-voltaic or PV system—makes sense for some consumers. However, even with these recent improvements in PV, it's important to find out the facts before committing to a purchase. Consider these points as you explore whether solar is right for your situation.

#### 1. MAKE YOUR HOME MORE ENERGY EFFICIENT BEFORE BUYING A SOLAR SYSTEM.

Adding insulation, sealing air leaks, and completing other basic fix-it projects make sense for several reasons. You can cut your energy costs immediately, and you'll also be able to reduce the size of the PV system you purchase. The cooperative offers a free energy audit to members, which is a good way to find out specific ways to make your home more energy-efficient.

#### 2. RESEARCH, RESEARCH, RESEARCH, BEFORE INVESTING IN A SOLAR SYSTEM.

The co-op should be one of your first contacts. Experts at Central Electric can answer basic questions, provide resource materials, direct you to reputable websites and other experts in our region.

#### 3. UNDERSTAND HOW A SOLAR SYSTEM MESHES WITH YOUR COOPERATIVE'S SYSTEM.

Most solar systems are designed to provide you with a portion of the electricity needed, but won't provide 100 percent of your needs. At night and on cloudy days, and possibly at other high-energy-use times, you'll need more power than your PV system can produce. That means you'll still be connected to the cooperative's power lines. Because these systems are grid-connected, energy can flow both ways. The co-op sets appropriate policies and rates for connecting PV systems to its lines (the grid) and for purchasing any excess energy your system might provide. As you begin to explore solar systems, be sure you contact the co-op about rate structures, interconnection, essential safety precautions, and any other connection-related details.

#### 4. REVIEW YOUR CURRENT ENERGY USE SO YOU CAN DETERMINE WHAT SIZE PV SYSTEM TO INSTALL.

Central Electric staff can help you review your past energy use, and help you determine how the projects you've undertaken to improve energy efficiency may help lower your future energy use. One pertinent bit of information that will be useful is looking at how your energy use fluctuates throughout the day. Having that information will help you determine the size and type of system best suited to your situation.

## **5. TALLY UPFRONT COSTS.**

Central Electric does not sell, install, or maintain PV systems, so you will purchase a system from a contractor who is not a part of the cooperative. If you purchase a solar system, you will be the owner, and you'll be responsible for the purchase price, as well as ongoing maintenance and repair costs. It pays to spend time figuring out all of the expenses you'll be responsible for during the life of the system. These may include: installation (in addition to the price of the system), interconnection costs, insurance, taxes, and possibly others, too. If you are financing, ask about the length of the term, if the contract is transferrable to a new homeowner should you sell your home, potential for price increases, as well as the same questions you'd ask if you were to pay cash for a PV system. In the "credit" column of your price comparisons, look at any incentives, rebates, and tax credits offered.

## **6. UNDERSTAND TAX CREDIT.**

A federal Residential Renewable Energy Tax Credit is in place through 2021 for residentially installed solar systems. The credit can be claimed upon completion of the installation and it includes labor costs for on-site preparation, assembly or original system installation, and for piping or wiring to interconnect a system to the home. The maximum allowed credit is 30% for systems placed in service by 12/31/2019, 26% for systems placed in service after 12/31/2019 and before 01/01/2021, and 22% for systems placed in service after 12/31/2020 and before 01/01/2022.

## **7. ACCEPT SHORT- AND LONG-TERM RESPONSIBILITIES.**

If you purchase a PV system, you'll need to meet the requirements of the co-op's interconnection agreement. That includes paying any costs of connecting to the cooperative grid. Local and/or state officials are responsible for conducting safety inspections, but it's your responsibility to notify them in advance about your installation. After the interconnection requirements are met, and the safety and integrity of your system are approved, the cooperative will take care of the connection to the grid. And, as the owner of the system, you'll be responsible for maintenance and system repairs. Be sure you know and understand what your responsibilities are.

## **8. FOLLOW ALL SAFETY PRECAUTIONS.**

Most solar systems are grid-connected. Because of the two-way flow of electricity, excess energy your PV system collects during the daytime flows into the cooperative's lines. This shoulders you with the responsibility for the safety of your cooperative line staff, others who may come in contact with a downed power line, and your cooperative's equipment. Improper connection and maintenance of your system may endanger people and the reliability of the grid.

## **9. CHOOSE A REPUTABLE CONTRACTOR/INSTALLER.**

Start with a list of options garnered from website research, Central Electric, local or state Better Business Bureaus, renewable energy associations, the state energy office, the state Attorney General's office, extension service staff, and any other local experts you can call on for assistance and advice. Contact at least a few of those contractors appearing on your list, especially if recommended by multiple state and local experts. Narrow your list after asking many questions, checking out other installations the contractor has completed, comparing bids (get at least three), checking references, and thoroughly examining contracts. If possible, ask a contract specialist or lawyer to review the contract before signing. (See our fact sheet Questions to Ask a Solar Contractor Before Signing a Contract),

## **10. MAINTAIN GOOD RECORDS.**

Keep files on your pre-purchase research and pre-installation data provided by the cooperative, as well as bids, contracts, inspection reports, maintenance records, and all other details you may need to refer to in the future. In addition, you'll want to know about system performance, so set up a system to track and compare your actual system performance with predictions provided by the contractor/installer.