



## 10 STEPS TO TAKE BEFORE INSTALLING SOLAR

As your Touchstone Energy Cooperative Deaf Smith Electric Cooperative wants 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 your questions. 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 solar panel system—makes sense for some consumers. However, even with these recent improvements in solar energy, 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 solar energy system you purchase. Go to [deafsmith.coop](http://deafsmith.coop) for additional information and resources to help you manage your energy costs.

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

Deaf Smith Electric Cooperative should be one of your first contacts. Experts at Deaf Smith Electric can answer basic rate questions and provide resource materials.

#### 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 solar energy system can produce. That means you'll still be connected to Deaf Smith Electric Cooperative's power lines. Because these systems are grid-connected, energy can flow both ways. Deaf Smith Electric sets appropriate policies and rates for connecting solar energy systems to their lines (the grid). As you begin to explore solar systems, be sure you ask Cooperative experts 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 SOLAR ENERGY SYSTEM TO INSTALL.

You can review your past energy use online at the Cooperative's bill pay site, on SmartHub, or by calling a member service representative. 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.

Deaf Smith Electric Cooperative does not sell, install, or maintain solar energy systems, so you will either purchase or lease 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. If leasing is the option you prefer, you will pay less initially, but you'll likely have higher ongoing costs. In either case, it pays to spend time figuring out all 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 leasing, ask contractors 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 purchase a solar energy system. In the "credit" column of your price comparisons, look at any incentives, rebates and tax credits offered for either a purchase or a lease.

## 6. SEARCH FOR INCENTIVES, REBATES AND TAX CREDITS.

Any financial incentives available will help reduce your investment costs. Opportunities vary by state and locale, and many have expiration dates. One database offering details is [www.dsireusa.org](http://www.dsireusa.org). This site includes a clickable, interactive map, showing federal and state incentives, credits, exemptions, grants, loans, and rebates for residential and commercial/industrial projects. In addition, your contractor should have up-to-date details about incentives available where you live.

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

If you purchase a solar energy system, you'll need to meet the requirements of Deaf Smith Electric Cooperative's interconnection agreement. That includes paying any costs of connecting to the Cooperative's grid. Local 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 met, DSEC will make the connection to the grid. And, as the owner of the system, you'll be responsible for maintenance and system repairs. If you lease a system, your responsibilities will depend on the agreement you sign. Be sure you know and understand all your responsibilities.

## 8. FOLLOW ALL SAFETY PRECAUTIONS.

Most solar systems are grid-connected. Because of the two-way flow of electricity, excess energy your solar energy system collects during the daytime flows into your Cooperative's lines. This shoulders you with the responsibility for the safety of your Cooperative linemen, 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.

Deaf Smith Electric is not associated with any solar companies. Start with a list of options garnered from website research, local or state Better Business Bureaus, renewable energy associations, your state energy office, your 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. Whittle 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 your 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.

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