

# **Simple Steps to**

# **Solar Energy**

## Power your home, business, organization or farm with solar!

**Before you begin:** Energy efficiency is the cleanest energy of all. Before adding solar energy production, limit your need for additional energy by making your home, business, organization, or farm as energy efficient as possible. Most utilities have incentives for efficiency and conservation, so be sure to ask your utility. CERTs also offers energy-saving resources on our website for a range of audiences at cleanenergyresourceteams.org/tools-guides.



#### Get educated

Understand whether a solar photovoltaic (PV) system will work for you to offset your electric energy use. Other technologies like air source heat pumps, ground source heat pumps, and insulation might better reduce demand for fuels needed to heat buildings. Any one of these technologies might be right for you depending on your energy use or the solar resource available at your site. You can learn more about solar and efficiency technologies from the CERTs solar page (cleanenergyresourceteams.org/solar) and heat pumps guide (cleanenergyresourceteams.org/ashp).

#### 2 Do you have a sunny site?

It is important to consider the solar resource at your site. Typically, a good site is one that has a south-facing exposure and little to no shading. You can get a sense for the solar resource at your site using the MN Solar Suitability App (solar.maps.umn.edu/app). A solar site assessor can help you decide which technologies are the best fit for your home, business, organization, or farm. Assessments will provide insight on the solar resource and potential structural or electrical issues. Most solar installers can provide you with a more detailed site assessment, as well as a bid that will give you a sense of the costs involved with installing solar.

**CONSIDERATIONS** 



### 3) Planning and zoning

It's important to check in with your local city or county about ordinances that might impact your solar project. Though many ordinances consider on-site solar installations as accessory uses, some require setbacks, structural assessments, and screening requirements, for example. Your solar installer should have a good handle on these requirements, but it's worth knowing these matters in advance.

## Your budget

Installers should be able to provide an accurate cost estimate for a project you're considering, and incentives can make solar more affordable. A federal tax credit can cover up to 26% of the project cost for those with tax liability, and the USDA Office of Rural Development provides REAP grants for up to 25% or loans for up to 75% of the project cost for farms and rural businesses. Check dsireusa. org for info about potential utility rebates as well. There are several financing options available for solar. Many organizations have been using commercial Property-Assessed Clean Energy (PACE) financing for solar and energy efficiency (cleanenergyresourceteams.org/pace).

## SEEK ADVICE

We can provide one-on-one assistance. If you are a farm or business looking to implement solar and you want to talk it over, just give us a call or an email and we'd be happy to help! Fritz Ebinger, CERTs Program Manager for Rural Energy Development: ebing007@umn.edu or 612-626-1028.







### 6) Compare bids from several solar contractors

You can use the Clean Energy Project Builder online directory (cleanenergyprojectbuilder.org) to help you search for solar installers. That website also provides a useful set of questions you can use to ask companies about qualifications (cleanergyprojectbuilder.org/hiringcompany). TIP: Some contractors will charge you a fee for coming out to do a site assessment, but then subtract that amount from your contract if you select them. Sometimes you can receive a site assessment for free or reduced cost in winter.

### 7) Select a contractor and install your system

Select a contractor, sign a contract, and install your system. TIP: It usually takes from two weeks to two months from the time you sign an agreement and make a down payment to the time the project is completed. This timeline depends on the weather, equipment, and labor logistics. If installing solar PV, your contractor will facilitate the interconnection agreement with your electric utility which will allow you to track production and receive payments for excess production under a "net metering" billing arrangement.

## CleanEnergyResourceTeams.org/Solar