



Going solar? Consumers urged to exercise due diligence in hiring a qualified installer

Once deciding to install a solar energy system—after you’ve made your home or business energy efficient and you’ve done your solar homework—consumers will need to select a solar installer and plan their installation. The Minnesota Department of Commerce highly recommends that consumers take time and exercise due diligence when hiring a qualified solar installer, because proper installation requires many considerations and attention to detail to ensure a safe, productive, and long-lasting system.

It’s a good idea to meet with and get bids from two or three installers before making a final selection. The complexities of sizing, siting, purchasing, installing, permitting, and interconnecting a solar electric system are beyond the scope of what most homeowners are able to do.

Several key components of the solar installation process include:

- **Qualifications.** Verify your installer’s qualifications. A hired installation crew must include a licensed Minnesota electrician. Make sure the installer is in good standing with the Minnesota Department of Labor and Industry (DLI). To verify the status of an installer’s license, go to the [DLI License Lookup webpage](#) or call DLI at 651-284-5069.

- **Ask about installer credentials;** for example, the [North American Board of Certified Energy Practitioners](#) (NABCEP) requires that NABCEP-certified solar PV installers go through specific training before they are certified and that they receive ongoing training to maintain their certification.
- **Request customer and business references.** Call references and ask about their experience with the installer. Did the installer meet their expectations regarding their installation? If there were issues with permitting and interconnection, did the installer work hard to resolve them with the utility and permit officials?
- **Go to the [Better Business Bureau](#)** to see if there are complaints or actions against the installer.
- **Check out the following sources to find a current list of installers:** Clean Energy Resource Teams' (CERTs) [Clean Energy Project Builder](#), Minnesota Solar Energy Industries Association's [Find an Installer](#), or the Minnesota Department of Commerce's [Minnesota Solar Guide](#).
- **Site Assessment.** When siting solar, it is important to maximize the sunlight striking the panels and minimize shading in order to maximize the energy production. As part of your installation, be sure that the installer provides a detailed assessment of your site, including a shading analysis, examination of the roof and other structures to determine the feasibility of a solar installation, and the estimated annual production of the system, along with the estimated bill savings. If installing solar modules facing multiple directions, request a cost/benefit calculation and separate shade analysis for each. East- and west-facing modules won't produce as much electricity as shade-free south-facing modules.
- **Permits and agreements.** Confirm that the installer is applying for all necessary building permits and interconnection agreements, along with providing documentation for incentives and manufacturer/installer warranties. An electrical permit and inspection are always required when installing a solar array in Minnesota and a building permit may be needed as well.
- **Manufacturer and installation warranties.** Review all warranties. Be sure to get an installer warranty that addresses all costs of repair or replacement for a minimum of two years. This is similar to a bumper-to-bumper warranty you receive on a new car. Most panels will have a manufacturer's warranty that guarantees a minimum of 80% output of the name plate capacity for 25 years and guarantees the inverters for 10 years.
- **Costs.** Be sure that the installer provides a detailed bid contract that describes all the work to be done and who is doing it (including any subcontractors), all the equipment and materials to be installed, timeframes for completion, payment specifics, and process for any change orders.
- **Down payment.** When making a down payment, pay with a credit card and not with a debit card or check; if you are the victim of fraud in a credit card transaction, you may be able to get your money back. Also, never prepay for the entire system. Beware of high pressure tactics that incentivize favorable treatment when you put more money down.
- **Rebates and incentives.** Review with your installer all financial incentives available to your installation. Make sure that the installer provides documentation for all applicable rebates and incentives and ensures timely filing. Check out the [Database of State Incentives for Renewables & Efficiency \(dsireusa.org\)](#) for incentives that may apply to you.
- **Inspections:** Agree that all required project inspections will be arranged by the installer.
- **Consider joining a solar co-op.** Solar cooperatives are increasingly an option for homeowners who want to simplify the process of going solar. Organizers of this nonprofit model share information, negotiate or organize a bidding process for bulk purchase installation, assist with checking and/or comparing bids, and act as consumer advocates throughout the solar

installation process. Participation should be voluntary and non-binding until installer contracts are signed.

Renewable Energy Certificates (RECs)

When a solar project produces electricity, it also creates renewable energy certificates (RECs), a tradable commodity that represents the green attributes associated with the renewable energy production. Whoever purchases the RECs has the right to claim that they're using renewable energy. In most cases, when the utility is contributing an incentive or rebate to the solar project, they are purchasing the RECs in exchange for the incentive. If it is important for you to claim that your home or business is using renewable energy, then you must own the RECs.

Consider CSG or green pricing if solar is not right for your location

In some cases, you may find that on-site solar may not be right for your location. If so, there are several other options that you can choose from to support renewable energy such as community solar gardens (CSG) or a green pricing program. For more information on Community Solar Gardens, see the CERTs [Community Solar Gardens](#) webpages, [Tips about Community Solar](#) from Commerce, or the Minnesota Attorney General's two-pager (pdf).

Sources to help on your solar journey

- **Solar Energy Industries Association:** Offers [Residential Consumer Guide to Solar Power](#), [Solar Industry Commitment to Consumer Protection](#) (pdf), and information on [solar leasing](#) (pdf) and [solar purchasing](#) (pdf).
- **Clean Energy Project Builder:** Connects people and businesses with companies that can help plan, implement, and manage clean energy projects. The online directory features companies that provide products and services for all kinds of solar and wind energy projects.
- **Clean Energy Resource Teams:** Offers fact sheets to determine if solar is right for homes, businesses, and farms; information about community solar gardens; special solar guidance for rural Minnesotans; and more.
- **Database of State Incentives for Renewables and Efficiency:** Provides a list of rebates, incentives, tax credits, and loan programs to support renewable and energy efficiency projects.
- **Minnesota Department of Commerce:** Provides unbiased general information about solar energy in Minnesota (800-657-3710) and includes a solar-help resource (solar.help@state.mn.us) to answer solar questions.
- **Minnesota Department of Labor and Industry:** Oversees the state's programs for apprenticeships, construction codes and licensing, occupational safety and health, wage and hour standards, and workers' compensation. Licenses electricians and has a [License Lookup search tool](#) and [contractor consumer information](#).
- **Minnesota Public Utilities Commission, Consumer Affairs Office (CAO):** Helps resolve disputes between solar customers and their utility companies under certain regulations.
- **Minnesota Renewable Energy Society:** Promotes the use of and advocates for renewable energy in Minnesota through education and the demonstration of practical applications. Provides solar education and training and independent solar site suitability assessments.
- **Minnesota Solar Energy Industries Association:** Represents and serves Minnesota energy professionals and solar energy users. Work primarily focuses on state legislative lobbying efforts and administrative implementation work at the state agency level.

- [Minnesota Solar Suitability App](#): A public online tool created by the University of Minnesota that determines solar site suitability for locations throughout Minnesota.
- [North American Board of Certified Energy Practitioners](#): A certifying body for solar installers; provides list of certified solar installers.