

SOLAR ENERGY

CONSUMER GUIDE



PREPARED BY:



The Nature
Conservancy 



1000 Friends of Iowa

Citizens United for Responsible Land Use

SOLAR ENERGY CONSUMER GUIDE



THINKING ABOUT GOING SOLAR? NOW IS THE TIME!

Powering your home, business, or school with solar comes with a variety of benefits. Solar pays you back over time through low or eliminated electricity bills. A photovoltaic (PV) system is a cost-saving asset that increases the value of your property and allows you to gain energy independence. Not to mention, your solar array makes a positive environmental impact by creating electricity without using polluting fossil fuels. Federal incentives and state programs have made solar more accessible and affordable than ever. Read on for some tips and best practices on navigating your solar journey.

GETTING STARTED WITH SOLAR..... PAGE 3

SELECTING A SOLAR INSTALLER..... PAGE 4

NAVIGATING THE SOLAR LANDSCAPE... PAGE 5

CONSUMER PROTECTION..... PAGE 6

FINANCING YOUR SOLAR SYSTEM..... PAGE 7



GETTING STARTED



SOLAR ENERGY: FIRST STEPS



Research Your Energy Needs: Understanding how much energy your household uses is crucial for properly sizing your array. Gather your past 12+ months of utility bills to gauge your annual energy usage. Also make sure to consider future energy needs and wants, including additions like battery storage, an electric vehicle, or a heat pump that could increase your usage.



Site Assessment: Does your home have factors that can make solar uneconomical? Getting a site assessment of your property will help determine whether your site is suitable for solar, and what location and type of solar system is right for your site. Most installers provide site assessments free of charge. Things that could impact your solar potential:

- The direction of your roof. South is ideal, but East + West only reduces production approximately 20%.
- Shading from trees or nearby obstructions.
- Roof Condition (age of shingles). If your roof is within 8 years of needing to be replaced, replacing the roof or moving the siting location is recommended given the longevity of these systems.



Know Your Local Rules: Check with your local city, county, homeowners association, etc. about any ordinances in place that might impact your solar project. Examples of these ordinances are setbacks and structural assessments. Your chosen qualified solar installation company will have a good handle on this process, because every jurisdiction and suburb is different.



Budget: Financing your solar project is an important piece of the puzzle. Incentives and grants may be available for financing your project. Visit the Database of State Incentives for Renewables and Efficiency (DSIRE) to see incentives in your location: [dsireusa.org](https://www.dsireusa.org)

SELECTING A SOLAR INSTALLER



SELECTING A SOLAR INSTALLER:

Finding a trusted solar installer is one of the most important parts of your solar journey! Instead of choosing the first solar panel installer that knocks on the door, do a bit of research. Ask friends and family who they used for their solar panel systems. Also, for each potential contractor, find out where they're from. Choose a local solar installer when possible, and be very cautious around offers from out-of-state companies.

TIPS FOR SELECTING AN INSTALLER:

- Ask lots of questions (samples below)
- Don't sign anything without a close review
- Get multiple quotes
- Make sure you understand financing terms
- Be cautious of installers that also try to sell you financing through them.
- Check for certifications, such as:
 - NABCEP Certifications
 - UL Photovoltaic System Installation Certification
 - Electronics Technicians Association Photovoltaic Installer Certification

QUESTIONS TO ASK AN INSTALLER:

- Is your company local?
- Does your company do the installation, or do you subcontract out the work?
- If you do subcontract work, who are the subcontractors and are they local?
- Does your company hold an Electrical Contracting License or do you hire out? Provide name of licensee and type of license.
- Does your company navigate all the needed permitting processes for us?
- What is the warranty (performance and/or workmanship) period of this install? 25 years is the typical warranty for panels, but make sure to get clear warranty information for all parts and panels.
- Who is responsible for the interconnection and incentive documents for this system? Get the name of the staff person who will prepare these and other incentive paperwork.
- What is the installation timeline from start to finish?
- What is the cost per watt on this proposal? Make sure to get at least two quotes to compare the cost per watt, along with the overall estimate.
 - A good estimate should include the cost of hardware, shipping, installation, connection to the utility grid, travel, & sales tax. It could even go so far as to include modeling of your PV system's production, expected payback, & total system benefits. As is true for many things, remember that the lower price may not always be the best price.
- Will installing this system void any roof warranties associated with my building? Ask for a list of precautions taken, products used and statements from manufacturer's compliance with roofing standards.

NAVIGATING THE SOLAR LANDSCAPE



START WITH ENERGY EFFICIENCY UPGRADES:



Before adding solar to your home or business, consider how simple energy efficiency updates could help. Start with an assessment of your property, and upgrade appliances, windows, and/or lighting to the latest energy-efficient models. These updates will help limit the size of your solar array, reducing the overall cost of your PV system.

The cheapest kilowatt hour is the one you don't have to use at all!

Navigating Solar Policies:

To fully understand the financial costs and benefits of installing solar, consumers need to comprehend the national, state, and local laws and incentives that influence solar investments, including net metering regulations, renewable energy certificate markets, and tax credits. Make sure your solar installer is connected to the state's trade association and up-to-date on current solar policy.

The Inflation Reduction Act (IRA) was passed in 2022 and includes many policies that affect the solar market, most notably the extension and expansion of the federal solar tax credit to 30% for ten years. Ask your installer how your property or business can take advantage of these new incentives!



CONSUMER PROTECTION

BEWARE OF MISLEADING ADVERTISING AND SOLAR SCAMS:

As in any industry, there are misleading solar advertisements and offers circulating online. We encourage all homeowners and businesses to:

- Avoid companies using high-pressure sales tactics: solar is a big investment, and reputable companies will give you plenty of time to make a decision.
- If installer representatives haven't physically visited your property for an assessment, don't sign a contract!
- Thoroughly research local solar companies using online reviews and consumer protection resources such as your local Better Business Bureau.

Quite simply, **if it seems too good to be true, it probably is.**



UNDERSTANDING CONTRACT TERMS:

Installing a rooftop PV system raises many questions, which may be addressed in a lengthy contract. Be sure to thoroughly review your contract. Some questions to ask:

- What is the length of the contract?
- Who owns the PV panels?
- What happens if the customer wants to sell their house?
- What happens if the PV system is damaged? Who is responsible for insurance?
- Is there a minimum production guarantee?
- Who can take advantage of state and federal solar incentives?
- Who will be installing the solar panels? Is it the same company I'm signing with or someone else?



FINANCING YOUR SYSTEM

FINANCING YOUR SOLAR SYSTEM



Customers entering the solar market may initially be confused about what exactly they are purchasing and owning. For residential solar consumers, the main financing arrangements include direct purchase, solar loans, and third-party ownership models like solar leases and power purchase agreement. Make sure to get multiple quotes and understand all the terms of your financing agreement.

Here are a few more considerations:

- Beware of financing your system through the same company that is installing your system. Make sure to ask for all line-item costs to understand if there are any mark-ups involved for them doing both the installation and the financing.
- Understand the term lengths to make sure the length of the loan doesn't extend far beyond the system's payback period. A low interest rate doesn't necessarily help if you're stuck in a long-term loan with hidden fees.
- Make sure to ask if it is a secured or unsecured loan, and what happens if you choose to sell your home or refinance your mortgage.
- Make sure to consult a tax expert about the federal tax credit to ensure you qualify for it. The installer's quote will likely include it as a certainty, and it's important to ensure you qualify.

