

# Thinking About Solar Energy?

## 10 THINGS YOU SHOULD KNOW BEFORE GOING SOLAR

### 1. Before investing in solar, make your home more energy efficient.

Implementing energy-efficiency measures prior to installing solar is the best way to save money on electricity. Doing so also will reduce the size of the solar system to meet your energy needs. To learn more about energy-efficiency measures and rebates, talk with your local public power utility representative.

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### 3. Understand Your Electric Usage & the Production Capability of the Solar System

- **Gather information** on your monthly electric usage.
- **Determine the size of system** you want to install. **PVWatts** is an excellent website that helps determine how to size your system based upon energy production per installed solar kilowatt (kW) for your location.
- **Remember to factor in that the average annual energy production** of the solar panels will decline at a rate of about 0.5 percent per year.



### Research Potential Incentives & Tax Credits

Determine what types of financial incentives are available to offset your investment costs. The **Database of State Incentives for Renewables and Efficiency** ([www.dsireusa.org](http://www.dsireusa.org)) is an excellent source of information on incentives and policies for renewables and energy efficiency.

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### 2. Study the Technology

As with any other large appliance purchase, **educate yourself on the product before investing in solar**. Do you have room to place the project on your premises? More importantly, does that area have an unobstructed view of the sun? Get a general understanding of the costs to install solar as the initial costs can be substantial. Read more about solar technology by visiting these two websites:

- *Homeowners Guide to Going Solar* by the U.S. Department of Energy
- *Solar Power for Your Home: A Consumers Guide* by the LSU College of Agriculture

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### 5. Understand Your Public Power Utility's Rate Structure

- **Ask your local public power utility** for a rate schedule to determine the kilowatt-hour (kWh) rate for your electric service.
- **Familiarize yourself** on how the rate schedule works because it is an important determinant in the economics of your decision. Going solar may affect some parts of your electric bill, but not others.
- **Check with your local public power utility** on its policy and rates for excess power generation.

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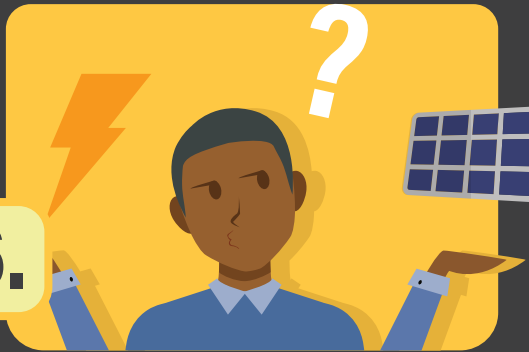
More  
Information

Steps 6 - 10

## Ensure Reliability & Safety by Knowing Your Public Power Utility's Interconnection Requirements

A solar power system interconnected to your residence effectively becomes part of the electric grid. To have reliable service available at times when your system isn't producing adequate energy to meet your needs, your local public power utility provides the backup electricity. Thus, solar owners must **work with the local public power utility to meet interconnection requirements to keep the grid reliable and safe**. Usually, there is a small cost associated with an interconnection application. There may be other charges depending on the impact of the interconnection and metering required.

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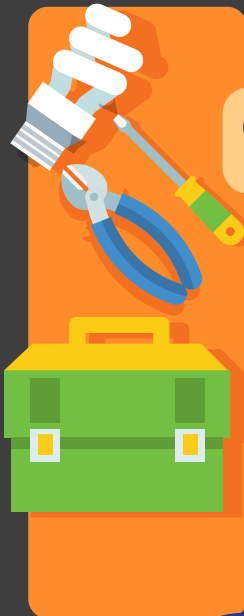
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## Obtain Needed Permits & Inspections

Your local public power utility needs to test the system before it goes live and that may require a fee. In addition, an electrical inspection may be required by law, and you may need a building permit. Check with your local planning and zoning office to determine the types of permits that are needed to legally install a system.

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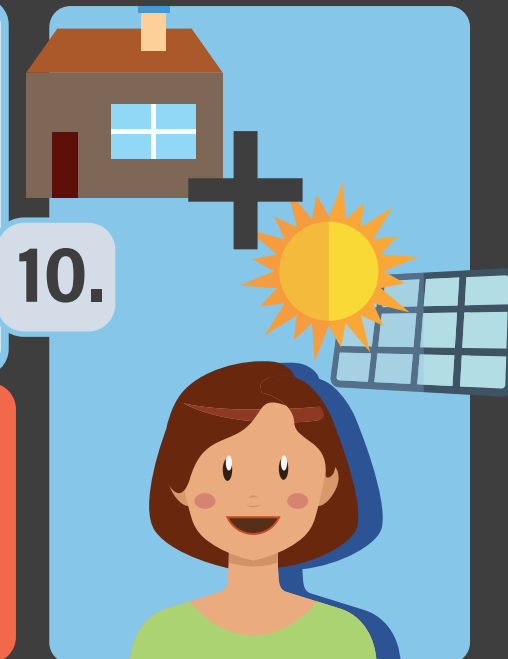
## Choose a Reputable Vendor

If you decide to go solar, **talk with a reputable, skilled vendor** to help you understand the sizing, equipment, construction, and economics of the system. Ask for references and check on-line reviews. For more information, refer to the North American Board of Certified Energy Practitioners' website.

## Check Your Enthusiasm

Solar technology can be exciting, but don't let enthusiasm lead you to unreasonable expectations. Do your conclusions make sense? **Have a trusted friend or your local utility review your analysis.** Remember that a solar system is an appliance. You are responsible for its upfront costs, maintenance, and safety. Getting the most out of the system will require care and attention on your part.

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## Do a Cost-Benefit Analysis

To perform your analysis, you will need to compare the cost of solar to the benefits of reducing your energy purchases from your utility.

- **Determine the costs of the system** over the life of the solar panels. As an owner, you will be responsible for not only your initial installed costs, but there will be some minimal annual operating and maintenance costs as well.
- **Assume that you will have to replace the DC to AC inverter at least once** during the life of the unit. Don't forget to factor in your incentives and tax credits as offsets to your costs.
- To determine the benefits, **apply the utility rate to the annual usage you will be avoiding from your utility** (the estimated amount produced by your solar panels). This will determine your annual savings, commonly called avoided costs. Compute these savings over the life of the solar panels.
- As a final step, **compare those savings** against the installed costs of the system.

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