

*10 Things  
You Must Know  
Before Buying  
Solar*



**RGS | ENERGY**

AMERICA'S ORIGINAL SOLAR COMPANY



## 10 THINGS YOU MUST KNOW BEFORE BUYING SOLAR

Solar photovoltaic (PV) cell panels are now used to power countless homes, commercial buildings, bus shelters, signs, parking lots and more throughout the U.S. But deciding to make the investment and “go solar” can be daunting for some homeowners, in spite of the financial upside and the desire to improve the environment.

To help broaden your knowledge about solar power for homes, here are 10 things you should know about solar energy and how it will impact you:

### **1. Solar energy systems offer a cheaper, cleaner and all-around better energy solution.**

A solar photovoltaic (PV) system harnesses the sun’s power to power your home. It creates this clean, renewable energy without creating any waste or emissions. Compare that with fossil fuel energy generation: the fossil fuels (such as oil and coal) must first be located, excavated and then transported before they can be burned to produce electricity. Their generating stations release air pollution and greenhouse gases into the air. Solar power can be generated nearly everywhere with little effort.

### **2. Solar can be installed in almost any climate.**

Solar PV panels can be installed in nearly every climate. Whether your home is on Long Island, New York, or in Long Beach, California, it can benefit from using sunshine to save energy costs. PV systems are generally unaffected by the temperature outside, and snow generally melts quickly since the panels are positioned to maximize exposure to available sunlight. Yes, a system in abundant year-round sunshine will produce more power than one in an area that gets a lot of clouds or shading. But, homeowners in a variety of snowy areas have seen significant energy savings from their PV installations.

### **3. Your home can still get electricity when the sun isn’t shining.**

At night or on cloudy days, you will consume electricity from the grid as before if your solar system is tied to the grid. A meter will keep track of the power your solar system produces. The local utility will bill for any consumption over the amount generated. If the home has an off-grid solar energy set-up, there is a rechargeable battery that stores excess energy that, if enough is generated, can be used when the sun is not shining.

### **4. A south-facing roof is not a requirement for solar PV panels.**

Ideally, solar systems in North America should be on south-facing area of



a roof. However, positioning the panels to face west or even southeast also works, and some homeowners have gotten acceptable results with a north-northwest facing roof. Your results depend on the slope of the roof, size of the system and available sun hours.

**5. An accurate idea of your energy use year-round and future energy needs is important.**

Going solar is a long-term purchase. Like your home itself, the solar energy system you choose needs to meet your family needs now and for the foreseeable future. If you are currently working days and the kids are in school, the needs are different from what they will be when the children leave the nest or you retire and need to keep the home cool during the day. A solar energy professional can help you calculate your energy needs going forward. This helps size the system needed.

**6. Professional installation is important.**

While it might be tempting to install a solar electric system as a DIY project, there are sound reasons to hire an experienced reputable solar installation company. Improper installation can possibly affect the roof, the life of the PV system and how much energy is generated. Panels will not harm a roof when properly installed. A professional installation can last 30 years with little maintenance, and will employ the latest methods to ensure that sun exposure and energy savings are maximized. Additionally, some solar rebates available through utilities and some insurance policies require a professional installation to ensure a job done right.

**7. Your roof type can impact your system cost.**

PV panels can generally be installed on most roofs, but the type of roof you have makes a difference on the installation costs. It will cost more to install solar panels on roofs covered in Spanish tile or shake than on plain roofs with asphalt shingles because of the additional labor hours required to carefully ensure that attachment points penetrating the roof are properly handled.

**8. Take advantage of federal and, where available, state or utility incentives to help fund your new energy system.**

There are huge federal and state tax incentives currently available to encourage people to have solar panels installed and reduce their nonrenewable energy consumption. While savings vary by geographic area, many have used the Federal Incentive Tax Credit and state rebates to cover



as much as 45 percent of their installation. That certainly ensures a faster return on the investment than merely waiting for the energy bill savings to accumulate over time.

#### **9. Figuring your return on investment (ROI) and savings is complicated.**

There are many factors that affect the cost and returns generated by installing a solar panel system. Here are some to consider when trying to estimate how many years it will take for the system to pay for itself:

- The cost for a system and its installation differ between stand-alone systems and those attached to a building. Factors related to the building (roof make and pitch) can affect costs, the size of the system and the equipment chosen.
- The amount of energy generated annually can be estimated but actual results over a few years give a better picture.
- The “tiers” of power used in determining rates at many utilities have different costs. So someone who uses higher levels of electricity, which cost more, will see greater savings (or a faster ROI) from going solar than someone who already uses less energy.
- A solar rebate and other incentives can significantly reduce the cost of a PV system. And if your system generates excess power that you can sell to your utility, it obviously speeds up the ROI.
- The impact of future increases in utility rates will be minimized and only affect your costs when you use energy from the grid. Most people nearing retirement like the idea that solar panels will keep their future energy costs in check.
- A homeowner’s insurance premiums may increase slightly after installation, but it is important to make sure the new system is protected from the same perils as your home.

#### **10. A solar energy system increases your home value.**

Many are hesitant to invest in a solar system if they plan to sell their home in a few years, but studies show that a solar energy system increases a home’s value. According to a New York Times article on a Department of Energy study, buyers in most areas are willing to pay a sizable premium for a home with solar panels. So, even without factoring in years of energy cost savings, homeowners who purchase and install PV panels to power their homes can recover nearly all their investment costs between the tax credits and the boost in home selling price.

RGS Energy has almost 40 years of experience in installing solar energy systems throughout the country, in a wide variety of settings. To find out how solar energy could power your home, visit [www.rgsenergy.com](http://www.rgsenergy.com).