



Commonly Asked Questions

1. How durable are the modules (panels) will they stand up to hail?

Modules are considered to be hail resistant and damage from hail is extremely rare. Tempered glass used in solar panels is designed to withstand a direct vertical impact of hail up to 1 inch in diameter, travelling at approximately 50 miles per hour. Additionally, most standard roof and ground mounted panels are tilted and do not receive the direct hail impact.

2. How big of a system will I need for a 2,000 sq. ft. house?

Solar system sizing for your home is determined more by electrical usage than the size of your home. The average us homeowner uses approximately 950 kWh hours per month or just under 12,000 kWh hours per year. Many factors affect your usage including the types of appliances you have and the energy habits of your household. For example, do you turn the lights off when you leave a room, do you have electronic devices plugged into a power strip that can be turned off when not in use. Many electronic devices continue to draw electricity when turned off. A solar site assessment by a qualified solar professional will include an energy audit of your home and make energy efficiency recommendations. Investing in energy efficiency measures can help to reduce your energy requirements and the size of your solar PV system.

3. Will solar work in my area? Is there enough sunlight.

Several factors influence the solar resource but in general, the U.S. has enough sun to power PV modules. Germany has less of a solar resource than the U.S. and they have the most installed solar in the world.

4. How do solar module handle the snow?

Any shading to a solar panel will reduce electrical output. Solar panels can work covered by a very light snowfall, but much more than that and the panel will not generate electricity. Solar panels have a slippery surface and are positioned on an angle. This can help snow can slide off as sun melts it. Ground mount systems can easily be brushed clean after a snowfall.

5. How many days will it take to install the solar panels?

The size of your solar system, type of installations and special mounting needs are some of the factors that can influence the installation time. A residential solar array can be installed in as little as one or two days.

6. How long do solar panels last?

Most solar modules are guaranteed to last 25 - 30 years. Some last over 40 years. The kilowatt output degrades slightly each year, yet can continue to provide consistent output. The majority of solar manufacturers provide a performance warranty of 25 years. Other PV system components, such as an inverter could possibly need replacing during the lifetime of your array. Inverters often carry a warranty of 5 - 10 years.

7. What kind of maintenance does a solar system require?

Solar systems require very little maintenance due primarily to having no moving parts. A tracking system on a pole mount array does contain moving parts and has the potential to require maintenance. Battery backup systems also require some minor maintenance to ensure battery longevity. Work with your installer to set up an operations and maintenance plan to ensure that the system is operating at optimal capacity.

8. How much does it cost?

The cost of a solar system involves several system design variables including, but not limited to, module size, mounting type, inverter selection, and the balance of the system components. Before any installation occurs, the installer performs a detailed site assessment to determine your renewable energy goals and needs, energy efficiency measures and solar window among other things. The installer will recommend a system size and an initial estimate for the solar system.

Solar module prices and components have fallen dramatically in the last few years. Many banks and credit unions offer low-interest solar loans making a solar purchase as easy as buying a car. Rebates and other financial incentives may be available in your area to further reduce costs. Your installer will be able to outline the current incentives.