



Interesting Facts About Solar Energy.

Learn Here.

15 Simple Facts about Solar Energy

1. Solar panels are more **sturdy** than most realize. They can withstand thousands of pounds or even inch-thick hail falling at 55 mph without breaking.

2. The amount of energy your home is using is measured in kilowatt-hours (kWh). One kilowatt-hour is the amount of electricity needed to burn a 100-watt light bulb for 10 hours or the amount of electricity needed to power a 1,000-watt appliance for one hour.

Related post: [***Are Solar Panels Really that Expensive? Breaking Down the Cost of Solar***](#)

3. You can estimate how much sunlight your house has access to based on where you live. A cloudy location like Hamburg, Germany receives 2.5 hours per day of sunlight each year. A sunny location like Los Angeles receives an average of 5.5 hours of sunlight per day each year.

4. A one-kilowatt peak solar system generates around 1,600 kWh per year in a sunny climate and about 750 kilowatt hours per year in a cloudy climate

5. According to the U.S. Department of Energy, the monthly average residential household's consumption of electricity in 2008 was 920 kWh.



6. For optimal power, solar panels are installed on a home's south side (East and West will also work, but usually require a few additional panels) at 30-45 degrees whenever possible. The east or west sides can also work, but may require additional panels for the same capacity.

7. Solar panels produce and harvest electricity during sunlight hours in the day. However, **home solar panel systems can store power in batteries** for use at night, yielding 24-hour electricity in a home.

8. Homeowners can opt to stay connected to their power company to receive power and electricity at night. If you produce an excess of electricity, then the electric company pays for the excess as a credit to you. This is called net-metering. This will lower your electric bill even more.

9. Solar modules produce electricity even on cloudy days, usually around 10-20% of the amount produced on sunny days.

10. The typical components of a **solar home system** include the solar module, an inverter, a battery, a charge controller (sometimes known as a regulator), wiring, and the support structure.



11. According to the U.S. Department of Energy, the average American's monthly residential electricity bill in 2008 was \$103.67.

12. Solar power can significantly reduce high electric bills, perhaps even to \$0.

13. While electric company rates continue to rise, solar panels are at an all-time low price, and zero-down solar power is now available.

14. Solar panels are quiet, have no moving parts, and require almost no maintenance.

15. A home solar system can grow as your needs and budget may change or grow; you can simply add more solar panels to the system.

Related post: [***Do Solar Panels Work in Winter***](#)

FAQs

Can solar panels withstand severe weather conditions?

Yes, solar panels are quite durable. They can withstand thousands of pounds of pressure and even inch-thick hail falling at 55 mph without breaking.

How much energy does a solar panel system generate?



A one-kilowatt peak solar system generates about 1,600 kWh per year in sunny climates and around 750 kWh per year in cloudy climates.

Can solar panels provide power during the night?

Solar panels generate electricity during sunlight hours. However, they can store energy in batteries for use at night, or you can stay connected to the power grid and use net-metering to offset nighttime electricity use.

How do solar panels impact electricity bills?

Solar panels can significantly reduce electricity bills, potentially to \$0, as they lower your reliance on grid power. Excess electricity produced can be credited back to you through net-metering, further reducing your electric bill.

At Big Dog Solar, we're passionate about powering your future with reliable, high-quality solar solutions. With expert craftsmanship and a commitment to innovation, we make switching to solar simple, affordable, and built to last.

855-935-0340 | bigdogsolar.com