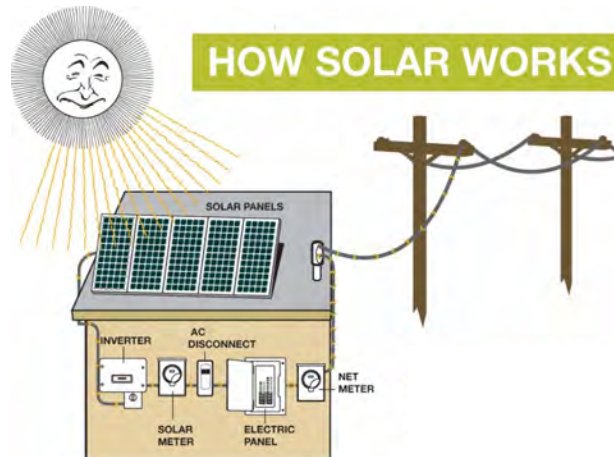


## HOW IT WORKS

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A residential solar energy system is a great way to power your home with clean, renewable, cost-stable electricity. The following diagram illustrates how residential solar systems work.



**Solar Panels:** Powering your home with the sun starts here. Typically mounted onto your roof, solar panels are made up of photovoltaic (or PV) cells, which convert sunlight into direct current (DC) electricity. This electricity is just like the electricity produced by a battery. Panels produce electricity with no moving parts and last a very long time.

**Inverter:** Inverters convert the DC electricity from the solar panels into usable AC electricity, which is the standard form of power used by home appliances. The type of inverter that will work best for your system is typically determined by the type of modules and the size of your system.

**Solar Meter:** The solar meter measures only how much electricity your PV system produces.

**AC Disconnect:** This enables electricians to disconnect the building's electrical system from the solar electricity system. By switching the AC disconnect off, workers can safely perform system maintenance.

**Electric Panel:** AC electricity from your inverter is passed onto the electric service panel where it is routed to power your home's various electric loads.

**NET Meter:** Here in California, utility companies offer NET Metering. This means, when your solar system produces more power than you use, an additional NET meter (provided by the utility company) records the amount of electricity being sent back to the utility grid and how much electricity you are receiving from the utility. During the day, when you produce more energy than your home can use, it is sent back to the grid and the utility.

During the day, your PV system will first power any electric loads in your building, before sending any excess generation back to the utility. At night and when your generation is not enough to meet your full requirements, you'll draw from the utility.

Your solar system meter only records the electricity produced by your photovoltaic (PV) system. The *billing meter* records several pieces of information: the amount of electricity your home has delivered to the utility and the amount of electricity the utility company has delivered to your home, and the net difference between the two.