

# HOW SOLAR ENERGY WORKS

## 1 WHEN SUNLIGHT HITS THE SOLAR PANELS, ELECTRONS INSIDE CAPTURE ENERGY, CREATING ELECTRICAL OR DIRECT CURRENT (DC).

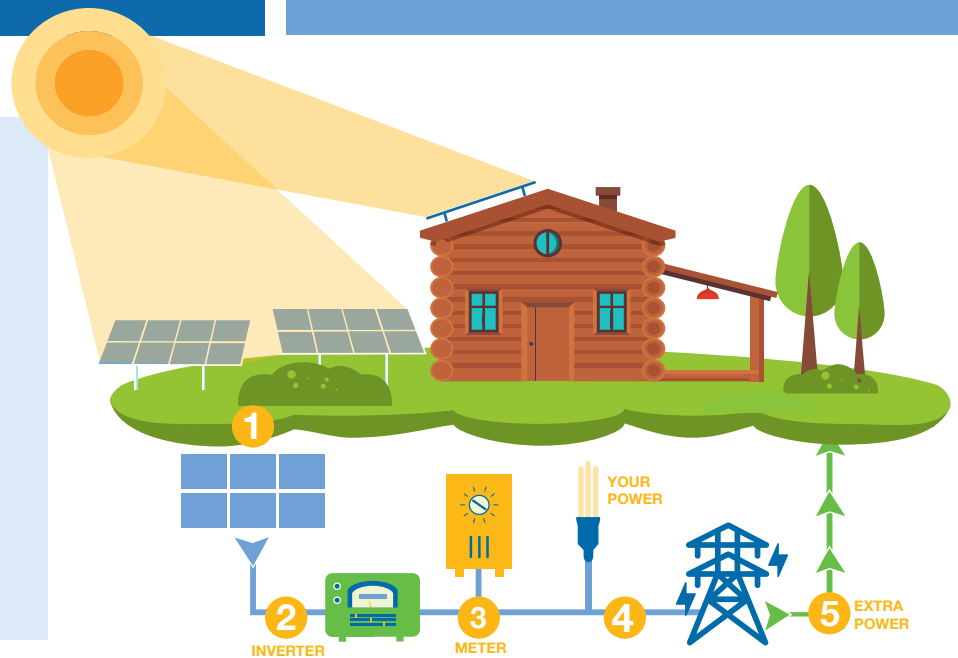
Solar panels are part of a solar power system that's made up of photovoltaic (PV) cells and other components to generate electrical power from the sun. Solar panels can be mounted on rooftops or on the ground to maximize sun exposure and generate the most power.

## 2 BUILT-IN INVERTERS CONVERT DC POWER INTO ALTERNATING CURRENT (AC).

AC is used in homes and businesses to power lights, electronics and appliances. The converted power is used locally and any excess power is sent to the power company electric grid.

## 3 A METER RECORDS THE AMOUNT OF SOLAR ENERGY GENERATED

A meter records the amount of solar energy generated. When connected to a home or business's main electrical panel, the solar energy generated reduces the electricity purchased from the power company.



## 4 BI-DIRECTIONAL METERING

The local power company may install a bi-directional meter that records the amount of energy the customer purchases and the excess power sent back to the grid.

## 5 THE LOCAL POWER COMPANY PROVIDES ADDITIONAL POWER

When the amount of solar energy generated isn't enough to meet a customer's power needs, the local power company provides additional power. This happens when solar production is low because of the sun's position, the season, or evening hours when solar energy isn't generated.

The [Green Power Providers](#) program provides an alternative choice for customers to receive a credit for every kWh of energy generated, including the excess energy they don't use. Contact your local power company for details.

