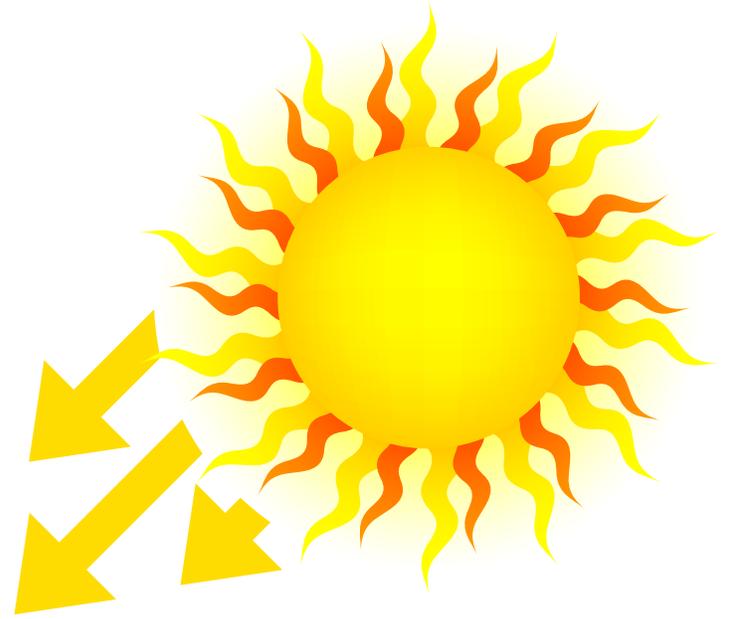


HOW A SOLAR PANEL WORKS

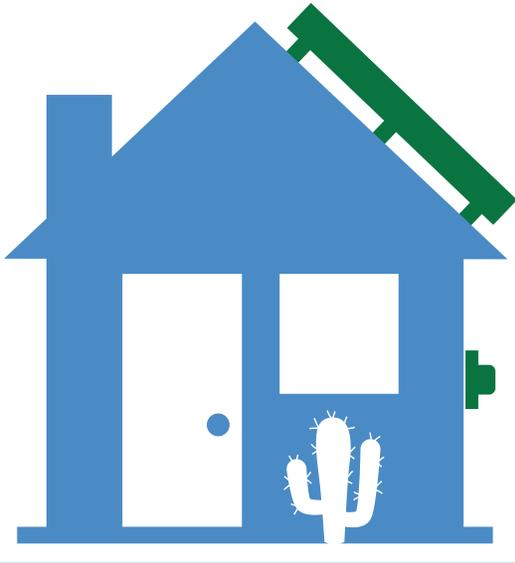
STEP 1: SUNLIGHT

Imagine a ray of sunlight as a stream of tiny particles. These particles are called photons and once they hit a solar panel, an electron is knocked loose. Certain materials such as crystal and silicon can actually absorb this energy – a property known as the “photoelectric effect” that causes them to absorb photons of light and release electrons.



STEP 2: SOLAR CELL

A solar cell is a thin-semiconductor wafer specially treated to form an electrical field. It's positive on one side and negative on the other and electrical conductors are attached to either side to form a circuit. This circuit then captures the released electrons in the form of an electric current.



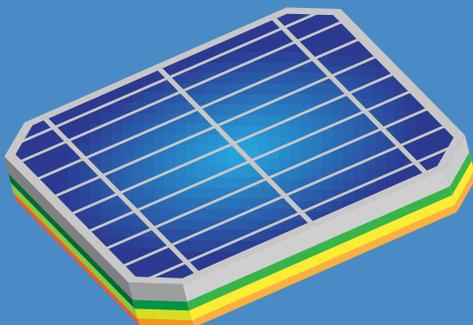
STEP 3: SOLAR PANEL (or photovoltaic panels)

A solar panel is a large collection of cells that are electrically connected to one another. These cells are then mounted into a support frame.

STEP 4: CREATING USABLE SOLAR POWER

Photovoltaic panels produce direct-current (DC) electricity, but we need alternating current (AC) to power our everyday gadgets and lights in our house. An inverter converts the DC electricity to AC electricity.

ANATOMY OF A SOLAR CELL



-  Metal conductor strips
-  Anti-reflective coating
-  1st silicon/thin film layer
-  2nd silicon/thin film layer
-  Metal backing