

The type that generates electricity uses a number of photovoltaic cells. Each of these works in a similar way to a battery, but uses the principle that a voltage is generated across the junction of two different metals or semiconductors when light shines on them. Each cell produces a small DC voltage but a few hundred of them produce enough electricity to operate some cunning electronics that converts it to something mains appliances can use.

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There are a variety of ways to make electricity. For example there is nuclear, fossil fuel, geothermal, hydroelectric and wind. Among these there's also solar energy. This form of energy is very convenient because the fact that it's renewable.

How exactly does solar energy work? Solar panels need a specific location to be placed. This site needs to be where the panels can get an abundant number of sun. Then they get the panels from the manufacture and install them. Inside these panels there are photovoltaic (PV) cells.

When sunlight (photons) strike the PV cell, some photons pass right through, some are reflected and the other photons are absorbed. The absorbed photons hit electrons and make them lose their place around the nucleus of the atom. The electrons then cross a barrier that's located inside the panels.

The only way the electrons can get back is by connecting the positive side to the negative side of the panel with a wire. When this happens it creates a direct current (DC) [DC=Gleichstrom]. For example, DC is when a battery is connected the electricity goes in a straight line and when it's disconnected it just stops. The DC has to go through a certain machine called an inverter that changes DC into alternating current (AC). AC instead of going in a straight line it goes up and down. This has to happen because things in a home run on AC.

The diagram below shows that the electrons (red circles) cross the barrier into the positive side (dark blue). It also shows the wire in which the negative and positive sides are connected (3)..

