

Can solar panels generate electricity with the back of the sun





Overview

How do solar panels turn sunlight into electricity?

Solar cells consist of layers of silicon that turn sunlight into electricity, but it takes more equipment than just that to get energy from the sun into your toaster. You've probably wondered what kind of magic in solar panels converts sunlight into electricity. It's not magic. It's science. Specifically, it's the photovoltaic effect.

How does solar energy work?

The amount of sunlight that strikes the earth's surface in an hour and a half is enough to handle the entire world's energy consumption for a full year. Solar technologies convert sunlight into electrical energy either through photovoltaic (PV) panels or through mirrors that concentrate solar radiation.

How do solar photovoltaic cells work?

Solar photovoltaic cells are grouped in panels, and panels can be grouped into arrays of different sizes to power water pumps, power individual homes, or provide utility-scale electricity generation. Source: National Renewable Energy Laboratory (copyrighted).

What happens when sunlight strikes a solar panel?

When sunlight strikes a solar panel, it excites electrons within the solar cells, generating an electric current. Solar panels are made of semiconductor materials, typically silicon. These materials have unique properties that allow them to absorb sunlight and generate an electrical charge. 1. Solar Cells (Photovoltaic Cells)



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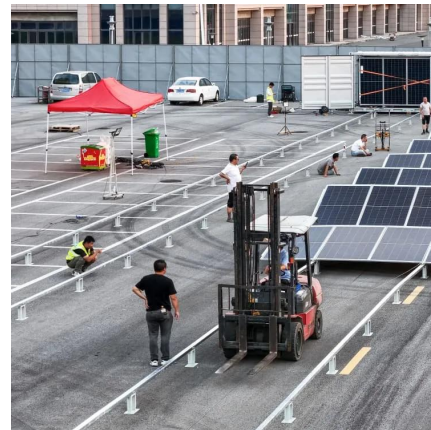


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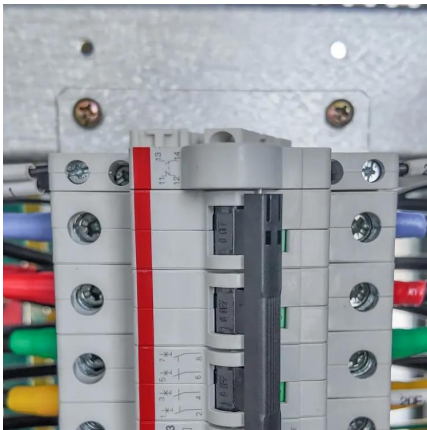
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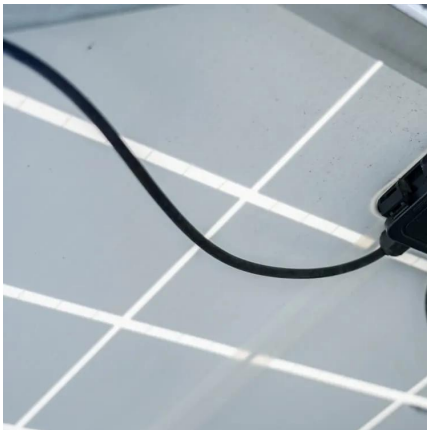
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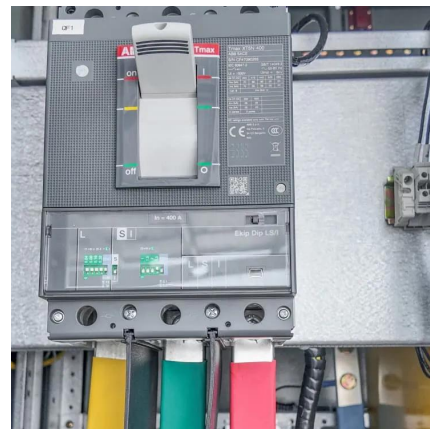


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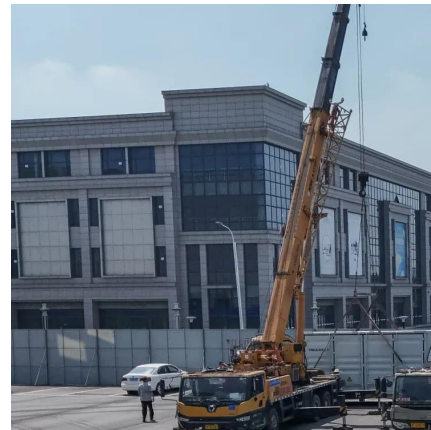


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