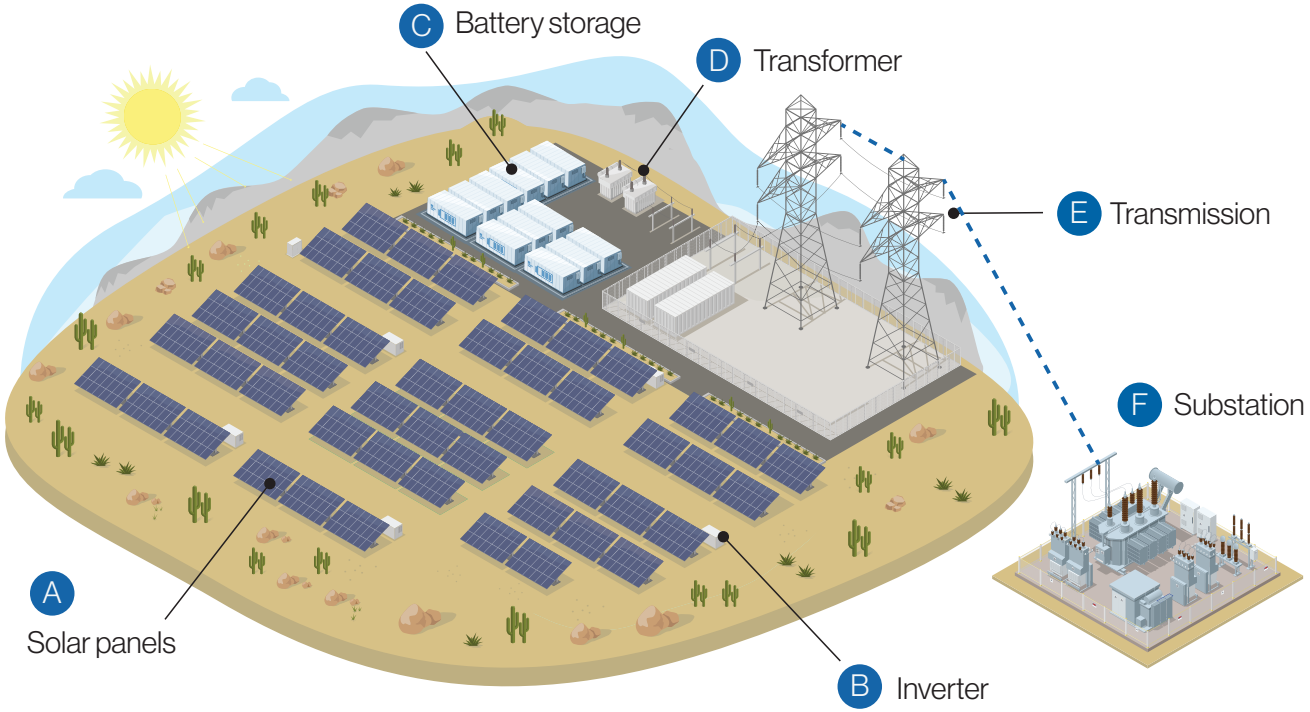
How does a solar + storage project work?



A The sun shines on the solar modules, which are made up of photovoltaic cells. These cells harness the sunlight and turn it into direct current (DC) electricity.

A project's solar panels have a tracking system and follow the path of the sun to maximize solar energy production.

B An inverter converts DC electricity into alternating current (AC) electricity.

AC electricity is what standard household appliances use.

C As the solar panels generate electricity, there are occasions where more electricity is created than is needed, this is called a "surplus". That surplus energy is stored in the battery units and will dispatch the energy when needed.

Battery Energy Storage Systems help support a reliable energy future by keeping power flowing during high demand and reducing strain on the grid.

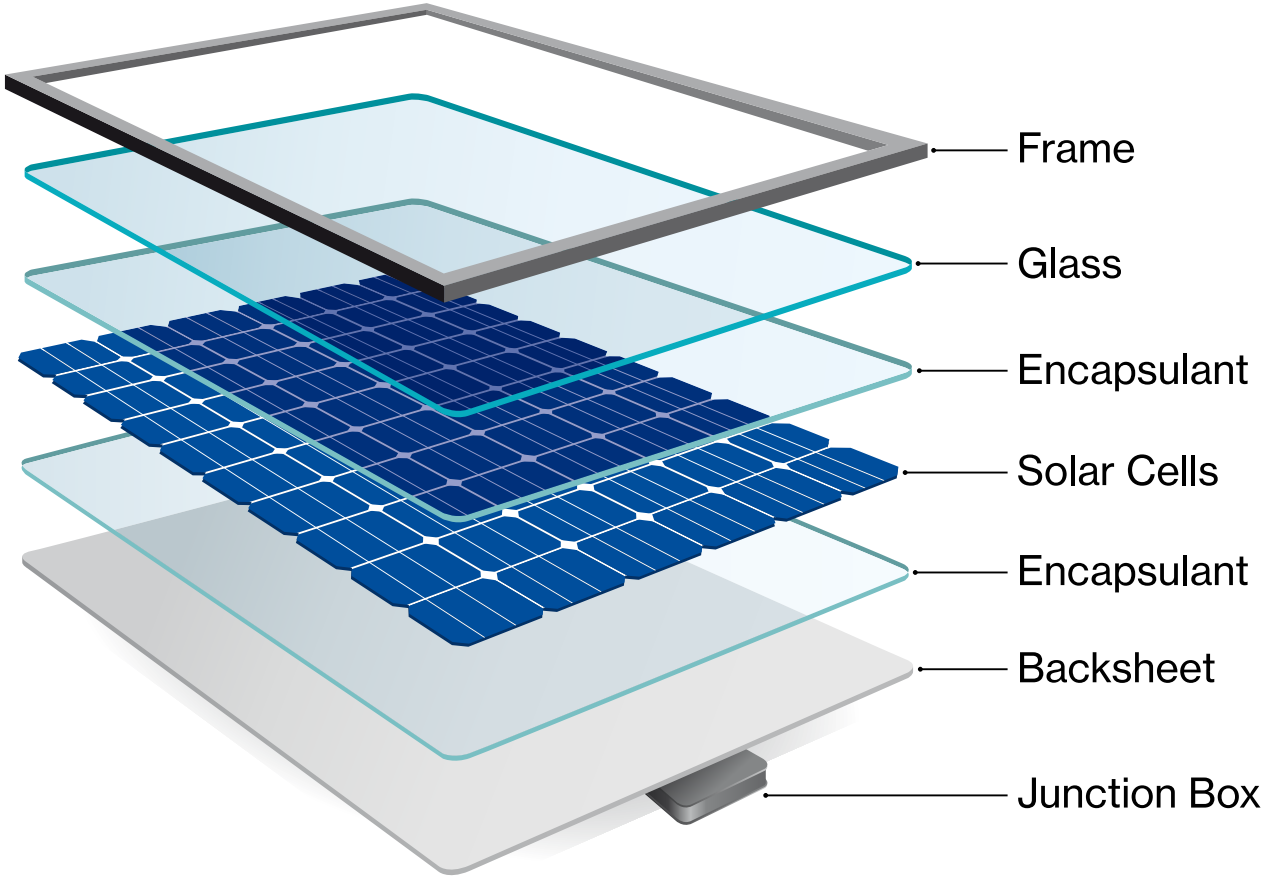
D The AC electricity is gathered in a large switchgear called a transformer. It "steps up" the power to match the high voltage of the utility grid.

E The AC electricity travels through the utility transmission lines to the regional power grid.

F The AC electricity reaches the nearby substation where it is converted to a lower voltage. This "step down" is required to adjust the voltage to appropriate levels to power neighborhoods and businesses.

What's in a solar panel?

More than 95% of the materials used in solar panels are commonly recyclable materials. This recyclable percentage is significantly higher than other electronic waste from consumer products like cell phones, television screens and computers.



Recyclable materials in a solar panel (panel percentage range):

76-97%
Glass

7-10%
Aluminum

5-7%
Silicon

2-10%
Polymer (coatings)