

# Issue Overview: Solar energy

By Bloomberg, adapted by Newsela staff on 09.15.16

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TOP: Solar panels are pictured in California in October 1996. Photo by Raphael Gaillarde. BOTTOM: Graphics by Solar Energy Industries Association.

# DEFINITIONS

## **carbon emissions**

The release of carbon dioxide into the atmosphere from activities like burning fossil fuels

## **fossil fuel**

A source of energy that is formed deep in the ground from dead animals and plants; coal and gas are examples

## **renewable energy**

Energy that is collected from natural resources that will not run out, like wind, water, and sunlight

Solar power comes from the

sun. It can be collected using large plates called solar panels. As the light hits them, they make electricity. Without electricity, machines would not work.

Solar panels used to cost a lot and not make much energy. Over time, the price has gone down. In some places, solar energy is as cheap as fossil fuels. These are materials like coal and gas. They are cheap, but they cause pollution.

A big problem is keeping electric power running. When it is dark or cloudy, solar panels receive no sunlight. They can't make electricity.

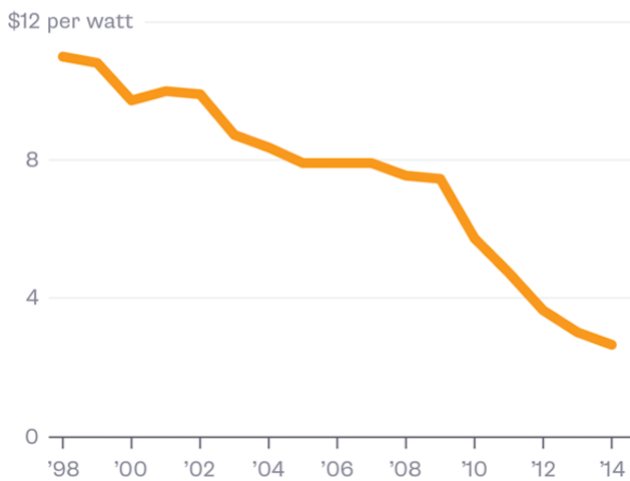
### The Situation

Solar is a form of renewable energy. Other forms are water and wind. Sunlight, water and wind are not consumed after they are used. But coal and gas are not renewable. They are burned to make electricity. In the U.S. all states have to lower their carbon emissions. This means they have to use less fossil fuel.

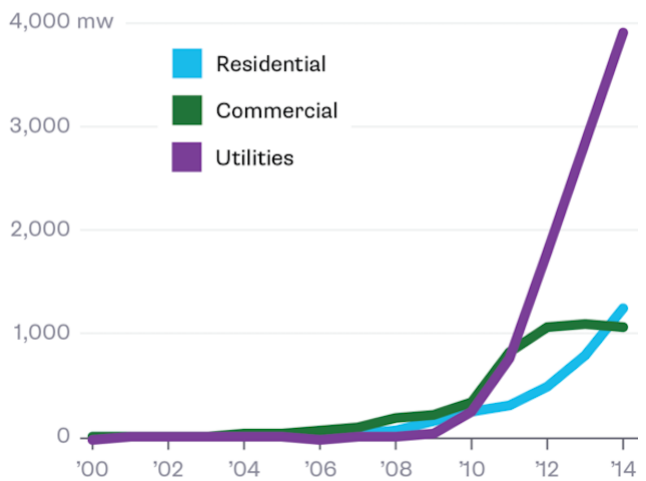
China and Japan are building many more power plants. India promised to spend millions of dollars. Even companies like Apple want to use solar power.

### Here Comes the Sun

Average solar system cost in the U.S.



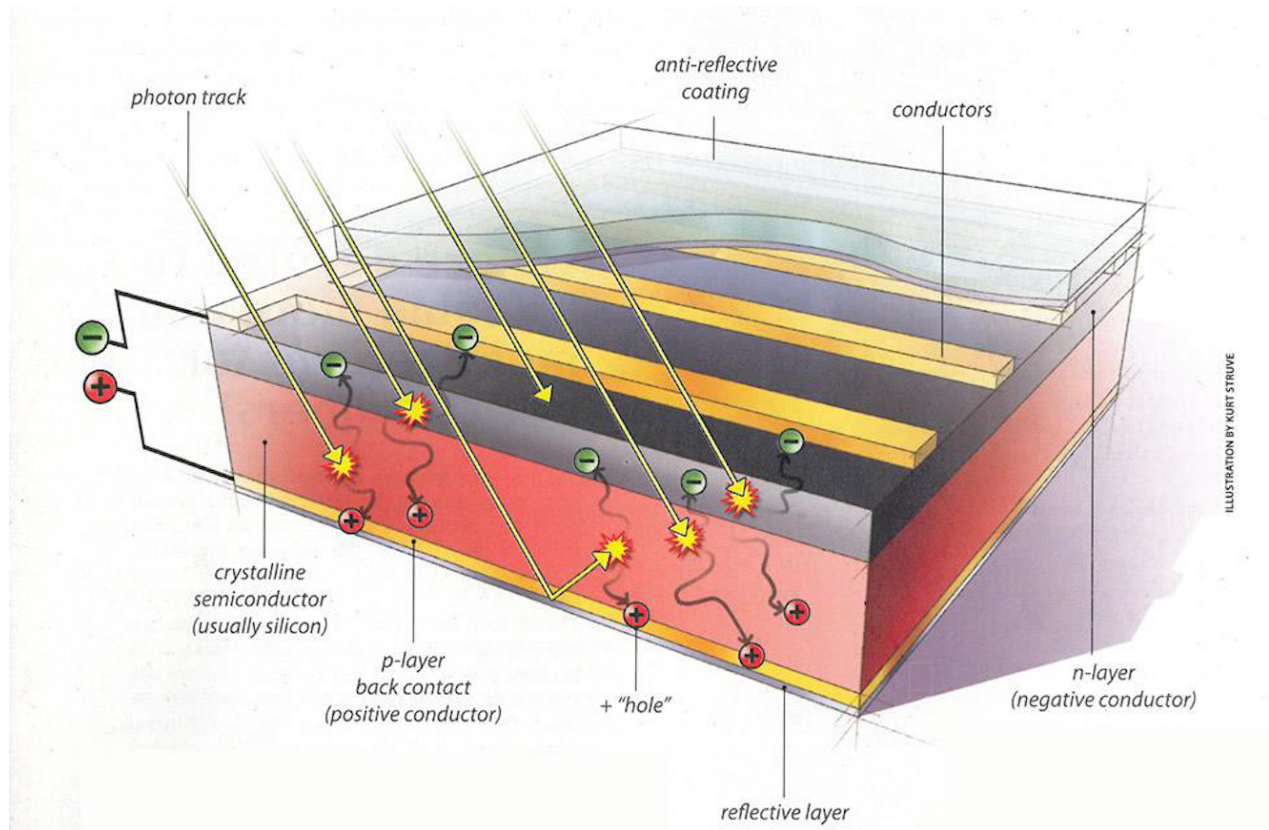
U.S. photovoltaic capacity, by sector



### The Background

The first solar panel was made in the U.S. By the 1990s, Japanese companies were making panels for the world. By 2004, Germany led the world in solar panel manufacturing. Eventually, solar energy companies started competing with each other. As a result, the price dropped. Some of these companies had to close.

In China, companies have built giant factories. They sell many solar panels around the world. The government helped pay for them. Foreign investors also gave China cash. This way, solar power companies stayed open.



## The Argument

Greenpeace is a group that wants to protect the planet. It says there is enough solar power for the whole world. Others are not so sure. Some say that solar could make a quarter of the world's electricity. This will only happen if the right laws are in place. Others say that solar power costs too much. Solar power also needs constant sunlight to work.

In the long run, solar power will become cheaper. It will certainly be cleaner. Right now, scientists are hoping for a breakthrough. They want to find a way to store solar power. Then people will be able to use it when it is cloudy and at night.