

Quick facts about the bright future of solar energy

TECHNOLOGY AND INNOVATION

Interest in solar energy is soaring – and for good reason.

Humans have harnessed the power of the sun since time immemorial, using it to tell time and start fires. And we've only gotten better at it. These days, we use photovoltaic (PV) panels to generate renewable solar energy, but the idea is basically the same. We're using one of the most abundant energy sources to create a more comfortable and environmentally friendly way of life.

Solar power is a growing trend – globally, including in the United States. Since 2008, domestic solar installations have grown to an estimated 97.2 gigawatts, according to the Department of Energy.

Solar supplies a relatively small 3% of U.S. electricity, but it accounts for more than a third of all the new power plants built in this country.

Enough energy to power the world

In just one hour, more energy from the sun falls on the earth than is used by everyone in the world in an entire year. The challenge is how to efficiently collect, convert and store all that energy.

Give it back to the grid

Did you know that unused energy from a solar-powered home gets sent back to the grid? If your state has “net metering” – and most do – you get a credit on your power bill. For those without net metering, batteries can be installed to store solar energy for later use.

Renewable rooftops

Taking up valuable land is not necessary. The cost of solar systems on residential rooftops has dropped nearly 70% since 2014. A 5kW system would total about \$20,000 before tax credits, and \$14,000 after. (The federal solar tax credit reduces cost by 30%, and some states, local governments and utilities offer other rebates and credits that can further reduce costs.)

Global gigawatts

Despite being dubbed the Sunshine State, Florida does not lead the U.S. in solar power – it's California. And globally, it's China with the U.S. and India right behind. However the highest penetration, around 10%, is in smaller countries such as Greece and Honduras.

Sources: Raymond James research; scientificamerican.com; energy.gov; thoughtco.com; census.gov; uwsp.edu; news.energysage.com