

Solar energy global statistics





Overview

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In this article, with the help of charts and key statistical data, we reveal the latest solar power statistics that demonstrate how the industry has grown so far, and the outlook and potential for the future. We will examine several key areas including output, installations, costs, and employment.

This dataset contains yearly electricity generation, capacity, emissions, import and demand data for over European countries. You can find more about Ember's methodology in this document. This is the citation of the original data obtained from the source, prior to any processing or adaptation by.

The Global Solar Power Tracker is a worldwide dataset of utility-scale solar photovoltaic (PV) and solar thermal facilities. It covers all operating solar farm phases with capacities of 1 megawatt (MW) or more and all announced, pre-construction, construction, and shelved projects with capacities.

Solar photovoltaics is one of the most cost-effective technologies for electricity generation and therefore its use is growing rapidly across the globe. Global solar photovoltaic capacity has grown from around 40 gigawatts in 2010 to approximately 2.2 terawatts in 2024. Only in that last year.



The Global Solar Atlas provides a summary of solar power potential and solar resources globally. It is provided by the World Bank Group as a free service to governments, developers and the general public, and allows users to quickly obtain data and carry out a simple electricity output calculation. How much solar energy does the world use?

The world currently has a cumulative solar energy capacity of 850.2 GW (gigawatts). 4.4% of our global energy comes from solar power. China generates more solar energy than any other country, with a current capacity of 308.5 GW. The US relies on solar for 3.9% of its energy, although this share is increasing rapidly every year.

How many people are employed in the solar industry?

3,975,096 people are employed in the solar industry worldwide, and 263,883 of these are in the United States. The solar energy industry created more new jobs in the US than any other energy subsector last year. It would take around 18.5 billion solar panels to produce enough energy to power the entire US.

What percentage of US electricity comes from solar power?

The latest 2021 annual statistics show that 3.9% of US electricity comes from solar power, up from 3.2% the previous year. Solar provided 0.95% of electricity in the US in 2015, and just 0.03% in 2010.

How much solar power does the world have in 2023?

Over the past 30 years, global solar power capacity grew from about 2.6 gigawatts in 2003 to 1.6 terawatts in 2023, showing how fast the industry has expanded. The top five countries leading in solar power installations are China, the U.S., Vietnam, Japan, and Germany.

Which countries have the most solar power installations?

The top five countries leading in solar power installations are China, the U.S., Vietnam, Japan, and Germany. Solar Energy Statistics stated that solar PV systems are made of solar panels and inverters that capture sunlight and turn it into electricity.

Which countries use solar energy?

Solar Energy Statistics stated that China holds over 35% of the global solar market share. Over 7.3 million homes in the U.S. are using solar power. The



U.S. has enough renewable energy resources to produce 100 times its yearly electricity needs. Every day, the Earth gets about 174 petawatts of solar energy.



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Quarterly Solar Industry Update

Each quarter, the National Renewable Energy Laboratory conducts the Quarterly Solar Industry Update, a presentation of technical trends within the solar industry. Each presentation focuses on global and U.S. supply ...

[Global Energy Review 2025 - Analysis](#)

The Global Energy Review 2025 Dataset includes 2022, 2023 and 2024 world aggregated data for total energy supply, electricity generation, technology deployment and CO2 emissions. It also includes selected data for key regions ...



[Executive summary - Renewables 2023 - Analysis](#)

In 2025, renewables surpass coal to become the largest source of electricity generation. Wind and solar PV each surpass nuclear electricity generation in 2025 and 2026 respectively. In 2028, renewable energy sources account for ...

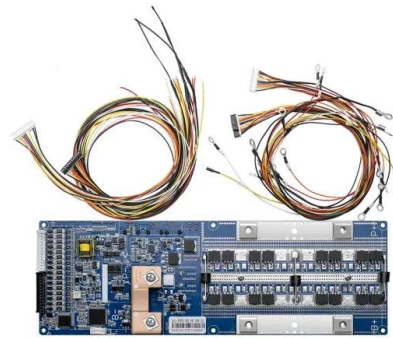


[Solar Photovoltaic Power Potential by Country](#)

The potential for clean, carbon-free electricity generation from solar photovoltaic (PV) sources in most countries dwarfs their current electricity demand. Around 20% of the global population



lives in 70 countries boasting excellent conditions ...



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