

# Solar power generation has the highest installed capacity



## Overview

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China is leading the world in solar PV generation, with the total installed capacity exceeding 600 GW by the end of 2023. [15][16] Since overtaking Germany in 2015, China has been #1 in the world in solar power. Solar has massive potential to transform life on our planet. According to a 2024 report by the World Bank, off-grid solar has the potential to bring. Solar power plants use one of two technologies: Photovoltaic (PV) systems use solar panels, either on rooftops or in ground-mounted solar farms, converting sunlight directly into electric power. Data source: IRENA (2025) - Learn more about this data processed This is the citation of the original data obtained from the source, prior to any processing or adaptation by Our World in Data. To cite data downloaded from this page. This dashboard ranks countries/areas to their renewable energy power capacity or electricity generation. In the last few years, solar power has become an increasingly important energy source around the world.

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### Solar power by country

Overview Africa Global use figures Asia Europe North America Oceania South America

Many African countries receive on average a very high number of days per year of bright sunlight, especially the dry areas, which include the arid deserts (such as the Sahara) and the semi-desert steppes (such as the Sahel). This gives solar power the potential to bring energy to virtually any location in Africa without the need for expensive large-scale grid-level infrastructural developments. The distribution of solar resources across Africa is fairly uniform, with more than ...

### Installed solar energy capacity

Depending on the data, this can include standardizing country names and world region definitions, converting units, calculating derived indicators such as per capita measures, as well as ...



### The Countries with the Most Solar Power Installed ?

This treemap chart shows the state of the world's solar photovoltaic (PV) installations as of 2024, broken down by region with the top 15 countries labeled. The chart's yellow labels indicate ...



### Solar, battery storage to lead new U.S.

[generating capacity additions](#)

In 2024, generators added a record 30 GW of utility-scale solar to the U.S. grid, accounting for 61% of capacity additions last year. We expect this trend will continue in 2025, with 32.5 GW of new utility ...



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[Solar Capacity by State 2026](#)

This report summarizes the latest statistics on solar power capacity by state and highlights the top U.S. states in solar power generation.



**Solar power by country**

Photovoltaic systems account for the great majority of solar capacity installed in the world. CSP represents a minor share of solar power capacity, and is present in significant quantities only in a few ...



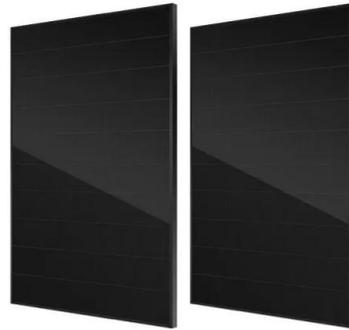
[Existing capacity of solar PV worldwide by select country](#)

Global cumulative installed solar PV capacity amounted to approximately 2.2 terawatts in 2024, up from less than 2.6 gigawatts in 2003. China, the United States, India, and Japan were the



### [Global solar installations surge 64% in first half of 2025](#)

In 2024, it took until September for global solar capacity additions to surpass 350 GW, while in 2025, the milestone was reached in June. The rapid expansion of solar capacity in recent years has made it ...

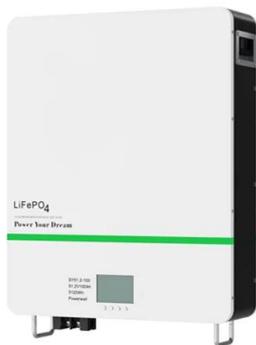


### [Solar Power by Country 2026](#)

Data and analysis including a list of solar power in every country in the world, countries with the most solar power, and countries that generate the highest percentage of their electricity from solar power.

### Country Rankings

This dashboard ranks countries/areas to their renewable energy power capacity or electricity generation. The data can be further refined based on region, technology or year of interest.



### [Top 10 Countries With the Most Solar Power Installed \[Updated 2025\]](#)

With nearly 888 gigawatts of installed capacity, it has outpaced the rest of the world by a huge margin. Installation of solar power in China is making an expansion through large-scale

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