

# Solar photovoltaic power generation statistics



## Overview

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In 2024, global PV power capacity grew by 597 GW to reach 2. 21 Although pollutants and toxic substances are emitted during PV manufacturing, life cycle emissions are low. Solar photovoltaics is one of the most cost-effective technologies for electricity generation and therefore its use is growing rapidly across the globe. Only in that last year . California Distributed Generation Statistics (DGStats) is the California Public Utilities Commission's official public reporting site of all distributed generation projects that are on a customer's site or property in California's investor-owned utility service territories. The rest of the world was up 11% y/y. The IEA reported Pakistan's rapid rise to fourth place in annual global PV deployment in 2024, with 17 GWdc installed.

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### Solar PV

Power generation from solar PV increased by a record 320 TWh in 2023, up by 25% on 2022. Solar PV accounted for 5.4% of total global electricity generation, and it remains the third largest renewable

### Solar PV Energy Factsheet

Solar energy can be harnessed two primary ways: photovoltaics (PVs) are semiconductors that generate electricity directly from sunlight, while solar thermal technologies use sunlight to heat water for



### Solar power generation, 2025

Electricity generation from solar, measured in terawatt-hours.

### Solar Market Insight Report - SEIA

Solar accounted for 54% of all new electricity-generating capacity added to the US grid in 2025. Combined, solar and storage made up 79% of new capacity in this timeframe.



### Solar PV

Find up-to-date statistics and facts on the global solar photovoltaic industry.

## 35 Latest Solar Power Statistics, Charts & Data [2026]

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



## CaliforniaDGStats

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## Spring 2025 Solar Industry Update

In 2024, between 554 GWdc and 602 GWdc of PV were added globally, bringing the cumulative installed capacity to 2.2 TWdc. China continued to dominate the global market,



## Solar power by country

The worldwide growth of photovoltaics is extremely dynamic and varies strongly by country. In April 2022, the total global solar power capacity reached 1 TW, increasing to 2 TW in 2024. The top

## Renewable & Alternative Fuels

Find statistics on renewable energy consumption by source type, electric capacity and electricity generation from renewable sources, biomass and alternative fuels.



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