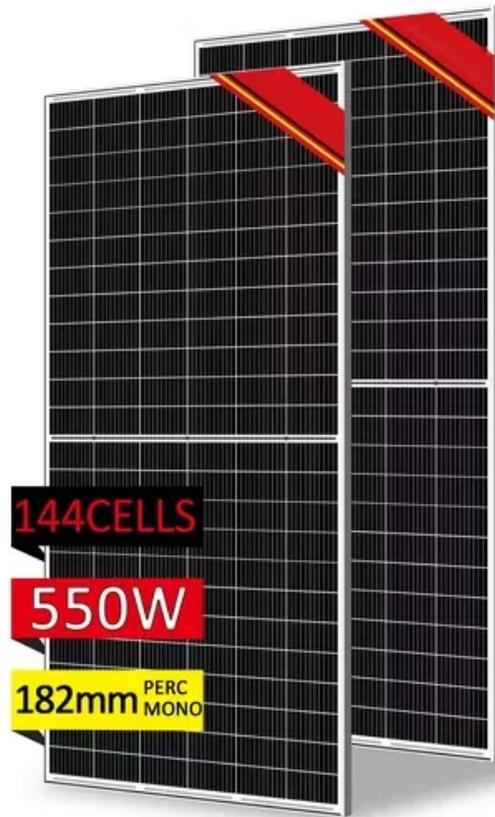


# Total solar power generation scale



## Overview

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Utility-scale solar capacity reached 128.6 GW in March 2025, growing from 96.6 GW in March 2024. The electric power sector totaled about 4,260 billion kilowatthours (BkWh) in 2024. In our latest Short-Term Energy Outlook (STEO), we expect U.S. electricity demand to grow 0.6% in 2025, when it reaches an annual total of 4,423 BkWh. Total solar generation that year, including estimated small-scale, utility-scale solar generation grew to 232 TWh in the rolling 12 months through March 2025, according to the latest data from the Energy Information Administration. Solar continues to dominate new electricity generation capacity added to the grid in the United States, according to the Energy. Solar photovoltaics (PV) is a very modular technology that can be manufactured in large plants, which creates economies of scale, but can also be deployed in very small quantities at a time. This allows for a wide range of applications, from small residential rooftop systems up to utility-scale. The year 2024 was a true landmark year for solar power. Global solar installations reached nearly 600 GW – an impressive 33% increase over the previous year – setting yet another record. While remaining a modest.

## Total solar power generation scale

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### US solar generation up 27% in 2024, accounting for 6.8% of all

According to the EIA's Electric Power Monthly Report, total solar photovoltaic generation surpassed 300 TWh, an increase of 64 TWh from the prior year. This 27% growth was the largest

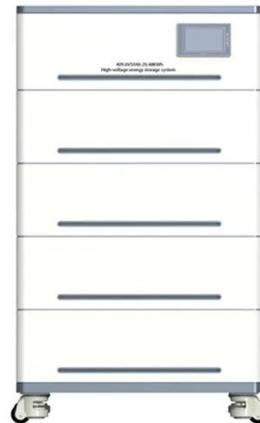
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### A Decade of U.S. Solar Growth

By the end of 2023, the U.S. had an estimated total capacity of 139 gigawatts (GW) from utility- and small-scale solar installations -- an increase of more than 26 GW or 23% from 2022.

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### Solar power in the United States

Solar power includes solar farms as well as local distributed generation, mostly on rooftops and increasingly from community solar arrays. In 2024, utility-scale solar power generated 219.8 terawatt ...

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## Solar power generation drives electricity generation growth over the

We expect the combined share of generation from solar power and wind power to rise from about 18% in 2025 to about 21% in 2027. In our STEO forecast, utility-scale solar is the fastest ...



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## Electricity generation from U.S. solar grows 28% year-over-year

Utility-scale solar capacity reached 128.6 GW in March 2025, growing from 96.9 GW in March 2024, while small-scale solar, projects of 1 MW or less, reached 55.7 GW in March 2025, ...

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## Solar power in the United States

OverviewSolar potentialHistorySolar photovoltaic powerConcentrated solar power (CSP)Government supportSee alsoFurther reading

Solar power includes solar farms as well as local distributed generation, mostly on rooftops and increasingly from community solar arrays. In 2024, utility-scale solar power generated 219.8 terawatt-hours (TWh) in the United States. Total solar generation that year, including estimated small-scale



photovoltaic generation, was 303.8 TWh. As of the end of 2024, the United States had 239 gigawatts (GW) of installed photovol...

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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.

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## Global Market Outlook for Solar Power 2025-2029

Global solar installations reached nearly 600 GW - an impressive 33% increase over the previous year - setting yet another record. Solar accounted for 81% of all new renewable energy ...



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## 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 ...

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## Solar Market Insight Report - SEIA

Solar accounted for 58% of all new electricity-generating capacity added to the US grid through the third quarter of 2025, with more than 30 GW installed. Solar and storage, combined, ...

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