



# A year s electricity generation from solar power stations





## Overview

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includes as well as local , mostly and increasingly from arrays. In 2024, utility-scale solar power generated 219.8 (TWh) in the United States. Total solar generation that year, including estimated small-scale generation, was 303.8 TWh. As of the end of 2024, the United States had 239 (G.

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.

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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.

We expect U.S. utilities and independent power producers will add 26 gigawatts (GW) of solar capacity to the U.S. electric power sector in 2025 and 22 GW in 2026. Last year, the electric power sector added a record 37 GW of solar power capacity to the electric power sector, almost double 2023 solar.

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.

82% of U.S. energy comes from fossil fuels, 8.7% from nuclear, and 9.1% from renewable sources. In 2023, renewables surpassed coal in energy generation. 1 Global wind additions reached a record 117 GW in 2023, totaling 1,021 GW. The U.S. remained the second-leading market in annual and cumulative.

Ember (2025); Energy Institute - Statistical Review of World Energy (2025) – with major processing by Our World in Data 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.



How much electricity does solar energy generate each year?

1. Solar energy generation varies significantly by region, climate, and technology, resulting in global production figures surpassing 1,000 terawatt-hours annually, with a marked increase observed each year. 2. Factors influencing this.



## A year s electricity generation from solar power stations



### [US Solar Electricity Generation Grows 28% Year-Over-Year](#)

Solar electricity generation in the U.S. increased 28% year-over-year, reaching 321,830 GWh as utility-scale capacity expands significantly through 2025.

### [U.S. solar power generation 2024, Statista](#)

In 2024, net solar power generation in the United States reached its highest point yet at 218.5 terawatt hours of solar thermal and ...



### [New solar plants expected to support most U.S. electric ...](#)

In our latest Short-Term Energy Outlook (STEO), we expect that U.S. renewable capacity additions--especially solar--will continue to drive the growth of U.S. power ...



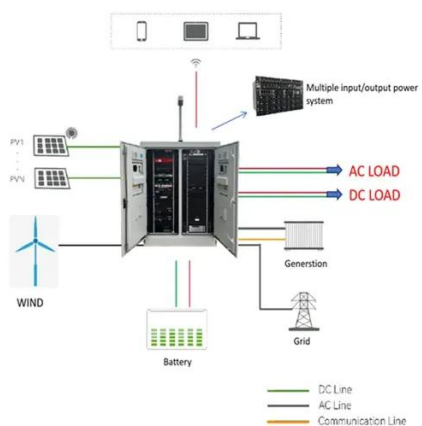
## U.S. Renewable Energy Factsheet

In 2023, renewables surpassed coal in energy generation. 1 Wind and solar are the fastest growing renewable sources, but contribute less than 3% of total energy used in the U.S. 1 The ...



### New solar plants expected to support most U.S. electric generation

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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 (G...



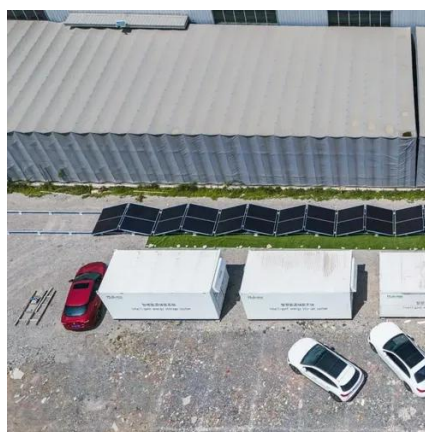
### How much electricity does solar energy generate each year?

When it comes to yearly output, these installations generated over 1,000 terawatt-hours (TWh) of electricity. This massive output showcases solar energy's potential to meet an ...



### [U.S. solar power generation 2024, Statista](#)

In 2024, net solar power generation in the United States reached its highest point yet at 218.5 terawatt hours of solar thermal and photovoltaic (PV) power.

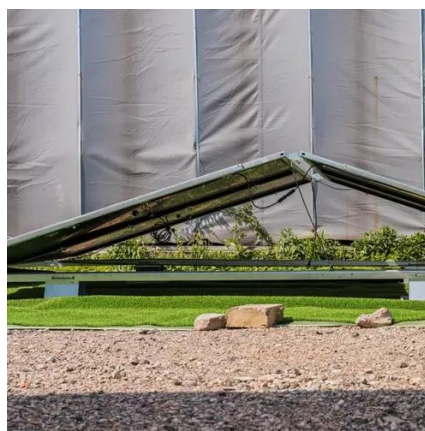


### **Solar power in the United States**

The 280 MW Solana Generating Station is a solar power plant near Gila Bend, Arizona, about 70 miles (110 km) southwest of Phoenix, completed in 2013. When commissioned it was the ...

### [America's Electricity Generation Capacity, 2025 Update](#)

The American Public Power Association's annual report on current and imminent electricity generation capacity in the United States breaks down the nearly 1.3 terawatts of utility-scale ...



### [Record-breaking year ahead for US power generation with](#)



The US is experiencing its most transformative year for electricity generation in over 20 years, driven by a surge in solar energy and backed by large-scale battery storage.

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

For the rolling 12 months ending March 2025, solar facilities, including utility-scale and small-scale projects, generated 321,830 GWh, up from 250,539 GWh in the rolling 12 ...



### Solar power generation, 2024

This dataset contains yearly electricity generation, capacity, emissions, import and demand data for over 200 geographies. You can find more about Ember's methodology in this ...

### [US Solar Electricity Generation Grows 28% Year ...](#)

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### [Electricity generation from U.S. solar grows 28](#)



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