

# Solar capacity by state





## Overview

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This article explores the top 10 solar states, details the key factors, and the combination of elements that make a state a solar leader. Check Out: List of Top 10 States that Produce Most Renewable Energy in the U.S. (2025) Based on the latest data from official sources like the Solar Energy.

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Explore the latest solar market insights and policy updates in all 50 states and Washington, D.C. All market data is current through Q4 2024. Please enable JavaScript in your browser to complete this form. The Solar Energy Industries Association (SEIA) is leading the transformation to a clean.

In 2023, the United States generated approximately 4.18 trillion kilowatt-hours of total electricity at utility-scale power generation facilities, with renewable energy sources contributing roughly 21% of this total and solar power making up 3.9%. Since 2010, solar power capacity in the United.

California once again takes first place among the top states generating electricity from solar power this month. The Golden State produced 24.1% of the United States' total of 38,965 thousand megawatt-hours, according to ChooseEnergy.com's August 2025 solar energy generation report. The report.

Data from 2007 through 2023. Source: Berkeley Lab, Utility-Scale Solar 2024 Copyright (c) 2024, The Regents of the University of California, through Lawrence Berkeley National Laboratory (subject to receipt of any required approvals from the U.S. Dept. of Energy). All rights reserved. This work is.

Solar energy progress by state including capacity, infrastructure, and economic statistics. Fueling ambitions. Powering networks. Accelerating solutions. Solar energy progress by state including capacity, infrastructure, and economic statistics. How much solar power does California have?



Solar power capacity is steadily expanding throughout the United States, as more than half of the states now boast 1 gigawatt (GW) or greater of installed solar. California has set an ambitious goal of achieving 100% clean energy by 2045. The state has been at the forefront of renewable energy generation and solar power generation in particular.

What percentage of State Electricity is generated by solar energy?

In 2022, solar energy contributed 19% of the state's utility-scale electricity net generation. When adding small-scale generation, solar energy accounted for 27% of the state's total electricity generation. The solar industry employs more than 78,000 throughout the state.

How much solar energy does the Golden State produce?

The Golden State produced 23.2% of the United States' total of 35,440 thousand megawatt-hours, according to ChooseEnergy.com's July 2025 solar energy generation report. The report analyzes the most recent solar energy data from the U.S. Energy Information Administration (EIA).

Which states generate the most solar energy?

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How much solar energy does Texas generate?

When adding small-scale generation, solar energy accounted for 27% of the state's total electricity generation. The solar industry employs more than 78,000 throughout the state. Texas has become one of the leading states in both solar energy potential and solar power generation.

Which state has the highest solar power capacity in 2023?

According to the U.S. Department of Energy, by the end of 2023, Texas is expected to become the state with the highest amount of annually installed solar power capacity from utility-scale facilities.



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### [The State \(s\) of Distributed Solar -- 2023 Update](#)

For the purposes of the map, community solar in Colorado, Hawai'i, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, New York, and Oregon is included as distributed solar. We added our own ...

### [State-wise Solar Power Capacity in India](#)

State-wise Solar Power Capacity in India The total solar power capacity installed in the country as on 30 June, 2023 is 70.10 GW. In addition, 55.90 GW is under installation. The Government is making all efforts through ...



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### [The State\(s\) of Distributed Solar -- 2024 Update](#)

Distributed solar, which can be owned by individuals, small businesses, and public entities, is turning the electricity industry upside down as individuals choose to generate their own solar power on their rooftop or ...

### [Utility-Scale PV , Electricity , 2023 , ATB , NREL](#)

The reported U.S. system capacity factors are consistent with the range of estimated capacity factors in the 2023 ATB (21%-34% in 2021). The figure below shows historical data for capacity factor as a function of ILR, solar ...

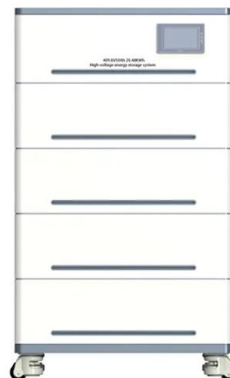


## Electricity generation, capacity, and sales in the United States

Estimates of small-scale solar PV capacity and generation by state and sector are included in the . As of the end of 2023, California had about 35% of total U.S. small-scale solar PV electricity ...

## [Top Five States for Solar Power Generation ...](#)

The southern state of Tamil Nadu has immense renewable energy potential, with access to sources such as wind, solar, biomass, biogas, hydropower, etc. Tamil Nadu holds the fourth position in India with ...



## Solar power in the United States

The oldest solar power plant in the world is the 354-megawatt (MW) Solar Energy Generating Systems thermal power plant in California. [5] The Ivanpah Solar Electric Generating System is a solar thermal power project ...



## [Top 5 States for Solar Power Generation in India](#)

India is making significant strides in renewable energy and particularly solar power as part of its commitment to achieving net zero carbon emissions by 2070. As of now, India's total installed solar capacity ...



## [Solar Power capacity of states in India: 2025](#)

Solar Power Generation capacity of Indian states in 2025 Solar power generation capacity in India reached 100.32 GW as of January 31, 2024, marking a 30-fold increase over the past nine years. Rajasthan ...

## [The U.S. installed record-breaking 50 GW of new ...](#)

The United States installed a record-breaking 50 GW of new solar capacity in 2024, the largest single year of new capacity added to the grid by any energy technology in over two decades. Developers ...



## [What are the Best States for Solar Energy? \[2025 ...](#)

The Solar States with the Best Deals The total solar capacity of a state is a great indicator of how profitable the solar industry is. However, the total cost of running solar in your state and the price of ...



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