

# What percentage of electricity is generated by solar panels



## What percentage of electricity is generated by solar panels

---



### [Solar energy penetration U.S. 2024, Statista](#)

Solar energy accounted for some 6.91 percent of electricity generation in the United States in 2024, up from a 5.62 percent share a year earlier.

### [Solar met 61% of US electricity demand growth in 2025, Ember](#)

Solar generation increased by a record 83 TWh from 2024 (+27% to 387 TWh), which meant solar generated 8.5% of all US electricity in 2025. The solar rise was driven by continued



### [End-of-Life Solar Panels: Regulations and Management](#)

Solar panels provide clean, renewable energy from the sun, and their prevalence as an energy source has been growing. In 2020, solar panels provided about 40 percent of new U.S.

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

In 2024, 66% of all new electricity generation capacity in the U.S. came from solar. The United States conducted much early research in photovoltaics and concentrated solar power.



### **Today in Energy**



According to our Electric Power Annual, solar power accounted for 3% of U.S. electricity generation from all sources in 2020. In our Short-Term Energy Outlook, we forecast that solar will

## Solar PV Energy Factsheet

PV conversion efficiency measures the percentage of solar energy converted to electricity. 7 While most available solar panels achieve ~20% efficiency, 8 researchers have developed modules approaching



## 2024 Total System Electric Generation

Once behind-the-meter (BTM) solar PV estimates of 26,765 GWh are subtracted, the resulting energy-to-serve load estimate (including onsite usage) is 277,142 GWh. This is within 1/2 percent (1,196

## US electricity demand surged in 2025 - solar handled

Solar supplied 61% of US electricity demand growth in 2025, as rising power needs were met largely by record solar and batteries.



## Share of electricity generated by solar power

This dataset contains yearly electricity generation, capacity, emissions, imports and demand data for European countries. You can find more about Ember's methodology in this document.

## [Exclusive: Renewables grew to almost 50% of global electricity](#)

Renewable power made up almost 50% of the world's electricity capacity last year after a record increase in solar installations, data from the International Renewable Energy Agency shared



## Contact Us

---

For off-grid system quotes, technical support, or partnerships, please visit:  
<https://kephamatraining.co.za>