

Australia s solar power generation system





Overview

How much solar energy does Australia generate a year?

Indeed, the positive figure of these recorded generation statistics is that cumulative solar generation has increased by 15% year-on-year, with May 2024 seeing Australia's fleet generate 2,486GWh in the NEM. Below is a full breakdown of monthly solar generation in the NEM on the graph, exclusive to PV Tech Premium subscribers.

What is solar PV & how does it work in Australia?

Energy can then be released from storage as required. Solar PV generated approximately 10 per cent of Australia's electricity in 2020-21, and is the fastest growing generation type in Australia. More than 30 per cent of Australian households now have rooftop solar PV, with a combined capacity exceeding 11 GW.

How many solar panels are there in Australia?

Solar generation, both large- and small-scale, has grown rapidly over five years. Hydropower has remained stable at around 6% of total generation. Australia has installed over 4 million small-scale renewable energy systems. In 2024, an estimated 3.2GW of solar PV capacity was installed. A similar amount is expected to be installed this year.

How many GW of rooftop solar will Australia have?

The Clean Energy Council (CEC) reported that with a cumulative 24.4 GW of rooftop solar installed in the first six months of the year, Australia is on track to exceed 25 GW installed capacity by the end of this year. Rooftop PV alone has already surpassed coal generation capacity of 21.3 GW.



Australia's solar power generation system



[Australian electricity generation from renewable sources](#)

Nov 20, 2025 · The figure shows Australian electricity generation from renewable sources in gigawatt hours from 1999-00 to 2023-24. Generation from renewables has increased ...

SOLAR REPORT

May 13, 2024 · STATE OF SOLAR IN AUSTRALIA
Rooftop solar continues to be a growing part of Australia's energy transition and is fast catching up to coal as Australia's biggest generation ...



NEM data spotlight: Solar generation in Australia's biggest ...

Jun 3, 2025 · In May 2025, utility-scale and rooftop solar PV dipped by 579GWh month-on-month in Australia's National Electricity Market (NEM) to 2,861GWh.

[NEM data spotlight: Solar generation in ...](#)

Jun 3, 2025 · In May 2025, utility-scale and rooftop solar PV dipped by 579GWh month-on-



month in Australia's National Electricity Market (NEM) ...



Solar energy

Solar power in Australia Solar PV generated approximately 10 per cent of Australia's electricity in 2020-21, and is the fastest growing generation type in Australia. More than 30 per cent of ...



Renewable electricity in Australia

Jun 3, 2025 · Australia's renewable generation share continues to increase, towards the 82% by 2030 target, driven by strong growth in solar and wind generation. Australia's largest grid, the ...



Australia powers ahead on rooftop solar as nation set to ...

Sep 15, 2025 · Australia's rooftops continue to be a clean-energy powerhouse, with new data from the Clean Energy Council released today showing rooftop solar provided 12.8 per cent of the ...





Household solar electricity generation in the Australian ...

Dec 3, 2025 · Australia now leads the world in per capita household solar, with more than 4 million homes - approximately one in three - equipped with solar panels[1]. This release includes ...



Australia reaches record solar, generating a QUARTER of its ...

Sydney, 13 November 2024 - New data from global energy think tank Ember reveals that Australia generated 25% of its electricity from solar power in October 2024, marking the first ...

[Australia Hits 43% Renewable Energy Milestone in 2025](#)

May 28, 2025 · Notably, battery generation surged by 86%, indicating a strong advancement in energy storage capacity. This shift away from coal, marked by decreased greenhouse gas ...



From Rooftops to Outback Farms: How Australia Became the World Solar

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