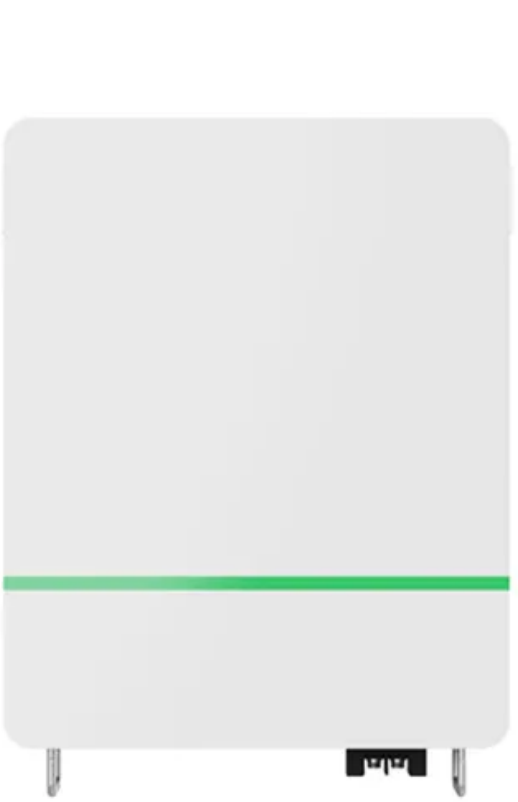
The rise of solar power generation



Overview

Global energy generation from solar photovoltaic (PV) panels, which convert sunlight into electricity, rose by 270 terawatt hours (TWh), marking a 26% rise on the previous year. While solar power shows significant promise, there remain significant challenges in scaling it to meet . The rapid growth of solar power in recent years has been one of the most remarkable stories of global energy. In 2022, the world added more new solar capacity than all other energy sources for electricity combined. That's an 87% increase from 2022 and 78% of all the new renewable capacity added last year. Next-generation technologies like . Even so, Goldman Sachs Research expects rapid growth in the sector, with global solar installations set to rise to 914 Gigawatts (Gw) in 2030, 57% above 2024 levels. Here we use data-driven conditional technology and economic forecasting modelling to establish which zero carbon power sources could become .

The rise of solar power generation

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

[Solar energy is going to power the world much sooner than you think]

Solar electricity is growing rapidly, but can it really dominate the global energy system? Here is what it will take for us to power the planet on sunshine

The remarkable rise of solar power

Global energy generation from solar photovoltaic (PV) panels, which convert sunlight into electricity, rose by 270 terawatt hours (TWh), marking a 26% rise on the previous year. While solar

[Science's 2025 Breakthrough of the Year: The unstoppable rise of]

Since the Industrial Revolution, human society has run on ancient solar energy-captured by plants hundreds of millions of years ago, stored in fossil fuels, and dug and

[Global renewable capacity is set to grow strongly, driven by solar PV]

Solar PV will account for around 80% of the global increase in renewable power capacity over the next five years - driven by low costs and faster permitting timeframes - followed by wind,

The Outlook for Global Solar Energy Continues to Be Bright

Policymakers in some of the world's largest economies are reducing support for solar power generation. Even so, Goldman Sachs Research expects rapid growth in the sector, with global

The exponential growth of solar power will change the world

Today solar power is long past the toy phase. Panels now occupy an area around half that of Wales, and this year they will provide the world with about 6% of its electricity-which is almost

The Exponential Rise of Global Solar Power

Solar power has entered an exponential growth phase, reshaping global energy systems as the cheapest, fastest-growing, and most transformative energy source on Earth.

The extraordinary rise of solar power

The intermittency of solar power, market oversupply of PV modules, and infrastructure constraints must be addressed to sustain the extraordinary growth we've seen in the last decade.

The momentum of the solar energy transition

Decarbonisation plans across the globe require zero-carbon energy sources to be widely deployed by 2050 or 2060. Solar energy is the most widely available energy resource on Earth, and

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