World Wind Power and Photovoltaic Power Generation

Overview

The world just added a record amount of wind and solar in 2025, and it's not even close. New data from global energy think tank Ember shows that 814 gigawatts (GW) of new solar and wind capacity came online last year, up 17% from 2024's 696 GW.

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World adds a record-breaking 814 GW of solar and wind in 2025

The tool provides an interactive way of tracking monthly wind and solar capacity deployment across 25 countries accounting for 93% of global solar and 92% of global wind capacity.

The world added a record 814 GW of wind + solar

The world added a record 814 GW of wind and solar in 2025, cutting gas demand and boosting energy security worldwide.

Solar and wind power generation

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Renewable electricity - Renewables 2025 - Analysis

Among all technologies, wind is impacted most, with both offshore and onshore capacity growth revised down by almost 60% (57 GW) over the forecast period. The forecast for solar PV capacity has been

PVWatts Calculator

Estimates the energy production and cost of energy of grid-connected photovoltaic (PV) energy systems throughout the world. It allows homeowners, small building owners, installers and manufacturers to

Wind and solar-dominant power systems are competitive, reliable, and

The report sets out that global power systems dominated by wind and solar generation can reliably deliver electricity at costs comparable to or lower than today's fossil fuel-based power systems in

Renewable Capacity Highlights 2025

Renewable power capacity increased by 585 GW (+15.1%) in 2024. Over three-quarters of the capacity expansion was due to solar energy which witnessed an increase of 452 GW (+32.2%); this was

Global Statistics

In 2025, wind turbines generated enough power to cover more than 11% of worldwide demand, surpassing nuclear energy and closing in on other fossil sources. This milestone reflects not

Global spatiotemporal optimization of photovoltaic and wind power to

Few studies have optimized global deployment of photovoltaic and wind power. Here we present a strategy involving construction of 22,821 photovoltaic, onshore-wind, and offshore-wind

[China continues to lead the world in wind and solar, with twice as]

(GEM). The 339 GW of utility-scale solar and wind that have reached the construction stage accounts for one-third of all proposed wind and solar capacity in China, far surpassing the

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