



# Global solar power generation trends



## Overview

TL;DR: Solar energy has become the world's fastest-growing electricity source, with global installed capacity exceeding 1,400 GW in 2024 and generation surpassing 1,300 TWh annually. The year 2024 was a true landmark year for solar power. Global solar installations reached nearly 600 GW – an impressive 33% increase over the previous year – setting yet another record. Solar accounted for 81% of all new renewable energy capacity added worldwide. Solar PV accounts for almost 80% of the global. The Global Solar Power Tracker is composed of worldwide facility-level data on utility-scale (1 MW+) solar photovoltaic (PV) and solar thermal facilities, as well as country-aggregated distributed (<1 MW) solar PV data. In 2024, solar photovoltaic capacity additions surpassed 600 gigawatts, accounting for over 80 percent of the total renewable power installed during that year. In the coming decade, solar PV is.



## Article Content

Executive summary - Renewables 2025 - Analysis

Solar PV accounts for almost 80% of the global increase, followed by wind, hydropower, bioenergy and geothermal. In more than 80% of countries ...

Solar Energy: Global Capacity and Growth Trends

Solar energy is the fastest-growing electricity source globally. Explore installed capacity, cost trends, top countries, technology types, and future projections.

Global Electricity Review 2025 | Ember

The global power system will be dominated by two mega-trends over the rest of the decade: solar's share in the electricity mix rising rapidly as it continues its exponential growth, and ...

Global Market Outlook for Solar Power 2025-2029

With China implementing major changes to its solar market design this year, a temporary dip in global growth in 2026 appears very likely. Meanwhile, other regions are falling behind, ...

The Outlook for Global Solar Energy Continues to Be ...

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

Spring 2025 Solar Industry Update

In 2024, between 554 GWdc and 602 GWdc of PV were added globally, bringing the cumulative installed capacity to 2.2 TWdc. China continued to dominate the global market, ...

Global solar energy outlook

In the coming decade, solar PV is expected to continue being the largest contributor to global renewable energy installations, reaching a ...

Global Solar Power Tracker

The Global Solar Power Tracker is composed of worldwide facility-level data on utility-scale (1 MW+) solar photovoltaic (PV) and solar thermal facilities, as well as country-aggregated distributed (<1 ...

Trends in PV Applications 2025

The IEA PVPS Trends in Photovoltaic Applications 2025 report provides comprehensive data and analysis on global PV deployment, technology, and ...

Renewable energy statistics 2025

Renewable energy statistics 2025 provides datasets on power-generation capacity for 2015-2024, actual power generation for 2015-2023 and renewable energy balances for over 150 countries and areas for ...

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