

# Solar power generation trend analysis



## Overview

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The IEA PVPS Trends in Photovoltaic Applications 2025 report provides comprehensive data and analysis on global PV deployment, technology, and market evolution from 1992 to 2024. The US solar industry installed 11.7 gigawatts direct current (GWdc) of capacity in Q3 2025, a 20% increase from Q3 2024, a 49% increase from Q2 2025, and the third largest quarter for deployment in the industry's history. Following a low second quarter, the industry is ramping up as the end of . Overall, we expect total electricity demand to increase by 1.2% in 2026 and reach 4,108 billion kilowatthours (BkWh). Power demand peaks in the summer months (June through September) because of increased cooling needs. 69 billion in 2023 and is projected to be worth USD 273 billion in 2024 and reach USD 436.30% . 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 solar installations set to rise to 914 Gigawatts (Gw) in 2030, 57% above 2024 levels. Growth in utility-scale and distributed solar PV more than doubles, representing nearly 80% of worldwide renewable electricity capacity .

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### [Exploring trends and predictions in renewable energy generation](#)

By analyzing data and forecasts from various sources, including government reports, industry publications, and academic studies, this study provides insights into the trajectory of



### **Solar Power Market Size, Share, Trends , Growth Report [2032]**

The Solar Power market in the U.S. is projected to grow significantly, reaching an estimated value of USD 103.96 billion by 2032, driven by the need to combat climate change through

### **Short-Term Energy Outlook**

In the summer of 2026, we expect solar power will generate 17% more electricity than it did last summer. In 2025, solar generation in the summer months surpassed wind generation for the first



### **Spring 2025 Solar Industry Update**

In 2024, solar represented 13.7% of net summer capacity and 6.9% of annual generation. EIA projects that PV's growth in 2023 (27 GWac) and 2024 (36 GWac) will continue in



### **Renewable electricity - Renewables 2025 - Analysis**

Growth in utility-scale and distributed solar PV



more than doubles, representing nearly 80% of worldwide renewable electricity capacity expansion. Low module costs, relatively efficient permitting processes

### 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 market evolution from 1992 to 2024.



### Global Trends in Solar Power

The overall snapshot of the investment trends across Asia-Pacific, Africa, Europe & others and Latin America & Caribbean regions are captured in the solar PV investment trends section of this report.

### Solar Market Insight Report Q4 2025

Despite the changing market and policy conditions that the solar industry has faced this year, solar will remain the dominant power source added to the grid in the next five years.



### 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

### Global Market Outlook for Solar Power 2025-2029

Solar accounted for 81% of all new renewable energy capacity added worldwide. While remaining a modest contributor to overall electricity generation for now, solar's share rose to 7% in



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