Solar PV in Europe:
Outlook for 2025 and Beyond

Start the year with the solar and photovoltaics market forecasts and trends you need to drive strategic decision-making in 2025.

2025 EU Solar Forecasts

+110GW

Projected addition of solar PV capacity throughout the EU for 2025

+7%

EU compound annual growth rate (CAGR) for solar PV from 2025 to 2034

+8%

Projected CAGR growth in the utility-scale market for 2025

2025 Market Roadblocks

From existing grid limitations, to supply chain issues, we breakdown some of the potential roadblocks in the EU that can impact solar pv growth in 2025.

Despite the EU Renewable Energy Directive's advice that the process should not exceed two years, permit processes continue to be lengthy and complex. Unless streamlined, this will threaten the EU climate targets of over 320GW of solar PV capacity by the end of 2025.

Global supply dynamics will be an issue in 2025. With Chinese manufacturers dominating the module market in the EU, any raw material shortages or restrictive trade policies, threatens to exacerbate existing supply chain issues in the EU.

The rising costs of capital for solar PV projects will continue to rise throughout 2025, which makes securing financing difficult. Drops in equipment prices, such as modules, will continue to threaten manufacturers and distributors throughout the EU.

With the growth of solar PV projects in the EU, there is a rising demand for qualified installers, electricians, and other skilled workers. Unless addressed in 2025, there will continue to be project delays due to worker shortages.

Grid constraints, due to aged infrastructures will come to a head. With existing grid infrastructures not capable of handling the increased capacity, bottlenecks will occur. For 2025, innovative grid management approaches in the EU will be critical.

Investment in energy storage will be critical for maintaining the growth of solar PV in the EU. The integration on active grids and new developments in battery technology to support excess energy storage will be key.

2025 EU Markets & Trends to Watch

+20GW

Germany is expected to add 20GW of new PV systems in 2025

Agrivoltaics will rise as countries create subsidies and adopt technology

Artificial intelligence and Internet of Things (IoT) in PV will increase

PV weather stations and pyranometer technology will remain essential

2024 Highlights

2024 saw a 4% growth in the EU for solar PV installed capacity. Despite the growth, this has been the lowest PV capacity growth year over year since 2016. Five out of the top ten markets for solar PV capacity saw a decrease in installation for 2024. Germany, Italy, and Spain remained top markets.

65.5GW

Total solar PV installed throughout the EU, setting new market record

+12%

YoY in new additions for utility-scale in the EU

Top Growth in Utility-Scale

Germany had a 29% growth in utility-scale PV installations

Italy had a 123% growth in utility-scale PV installations

Portugal had a 100% growth in utility-scale PV installations

Sources:
SolarPower Europe. (n.d.). EMO Webinar.
Retrieved from https://api.solarpowereurope.org/uploads/EMO_Webinar_fba5919fae.pdf
CarbonCredits.com. (n.d.). Europe's Solar Industry in 2024 Saw Record Growth and Bold Innovations.
Retrieved from https://carboncredits.com/europes-solar-industry-in-2024-saw-record-growth-and-bold-innovations-eu/