

The future of solar energy in Europe: facts & figures and how to harvest solar's full potential

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- Representing the whole solar value chain 320+ organisations
- Working closely with 30+ national associations
- Based in Brussels





Solar in Europe | facts and figures

EU ANNUAL SOLAR PV INSTALLED CAPACITY 2000-2023

Another all-time record in 2023



With 55.9 GW installed in the EU in 2023, this marks the best solar year in EU history so far, 40% higher than the 39.9 GW installed in 2022



More than 10 GW installed in Germany



Germany is the largest market in Europe in 2023. Italy joins the top 3. France drops the top 5. Austria, Belgium, and Hungary join the Top 10.



FIGURE 5 TOP 10 MARKETS 2022-2023

Over 260 GW EU solar power plant fleet



In 2023, the EU's solar power generation fleet increased by 27% to 263 GW, from 208 GW in 2022.



Growth ahead... But less certainty



The next 4 years until 2027 will see growth, with a 62 GW annual solar market in 2024 and reaching 93 GW in 2026.



800

Surpassing half a TW in just 4 years



Cumulative capacity forecast 2024-2027 shows continuous, two-digit annual growth rates. The EU solar power generation is expected to reach 576 GW in 2027.



NECPs 2023: Improved ambitions, but short of REPowerEU target

EU-27 Total Solar PV Market Scenarios 2023-2030



Based on data available as of end of November 2023.

21 EU member states updated their NECP solar targets by End of November. The total pledge now reaches 591 GW, up from 335 GW in the previous version, which remains around 20% bellow REPowerEU's 750 GW target.





Challenges ahead need to be tackled

Europe needs to achieve 2 equally important goals:

- Securing further strong solar growth to reach the Renewable Goals
 750 GWdc by 2030
- Reshoring solar
 manufacturing to Europe
 30 GW by 2030



*SolarPower Europe Medium Scenario projection to 2030 **Based on REPower EU target of 750 GW (800 GWan) installed PV capacity in EU-27 by 2030





Maintain an investment-friendly environment for solar PV, especially now that market conditions are changing.

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2. Bring grids and flexibility investments to the next level, especially at the distribution level.



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Grid connection times across the EU

ESTIMATED TIME RANGE TO CONNECT A SOLAR PV SYSTEM IN SELECTED EU COUNTRIES - UTILITY SCALE PV SYSTEMS



ESTIMATED TIME RANGE TO CONNECT A SOLAR PV SYSTEM IN SELECTED EU COUNTRIES - SMALL PV SYSTEMS



3. Grow the pool of certified installers and skilled workforce.





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4 **Time to improve** renewables planning and permitting; time to implement what was agreed.

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Overview of Member State transposition of EU permitting rules

	AT	BE (FL)	BG	cz	FR	DE	EL	IE	іт	NL	PL	PT	RO	sк	ES	SE	Transposition rate per dimension	Indicative plant scale concerned by the measure
Single contact point and digitalisation																	50%	small-scale + large scale
Deadlines for permit granting																	25%	mostly large scale
Acceleration areas																	38%	small-scale + large scale
Overriding public interest																	31%	large scale
Simpler rules for Repowering																	38%	large scale
Acceleration on artificial structures																	25%	mostly small-scale
Positive silence																	44%	small-scale
Simple notification for small-scale PV																	75%	small scale
Transposition rate per Member State	38%	75%	13%	13%	63%	63%	75%	25%	50%	13%	13%	75%	25%	38%	38%	38%		

transposed

mostly transposed or to be transposed

mostly not transposed



not transposed





5. Scale-up sustainable and diversified solar PV supply chains.





Supporting European manufacturing with the right solutions

Structural measures: mid/long term impact

Structural measures: short-term impact

Emergency measures



COM to set up a **Special Purpose Vehicle** to buy out and resell 2023 stock



MS to consider state guarantees and credit lines (role of investment banks like KfW / EIB)





EIB to support ready-to-go pipeline of solar manufacturing development projects NZIA to provide stable framework for "resilience auctions" towards 2030



Adjust, and prolong, State Aid rules to also cover opex support



Add an EU-level financing tool, like the Solar Manufacturing Bank, linked to the Innovation Fund or EU Sovereignty Fund

Industrial policy with clear
 market access standards: ESG
 values, Ecodesign rules, Forced
 Labour Bank Act and CSDDD

History shows us that trade defence measures are a loselose strategy









Thank you!

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