



European  
Commission

## Policy brief: Competitiveness of clean energy technology – Solar Photovoltaics

October 2023

### Headline findings

- Solar photovoltaics (PV) plays a pivotal role in all scenarios to reach net zero by 2050. It also provides cheaper electricity than fossil-fuel power in most countries and is the fastest growing power generation technology.
- EU PV companies are facing considerable competition, especially from China, which dominates the upstream PV value chain. Still, the European Solar Photovoltaic Industry Alliance aims to expand EU manufacturing capacity to reach at least **30 GWp** by 2025.
- Following stable PV prices in 2022, costs fell in 2023 from **EUR 0.35/Wp** to **EUR 0.15/Wp**, by end 2023, making it harder for EU manufacturers to produce profitably.

### Key (competitiveness) challenge for Photovoltaics

#### Challenge 1

Even further boosting deployment is essential to achieve global and European climate goals including net zero by 2050.

#### Challenge 2

High manufacturing costs in Europe. Chinese companies provided at least three quarters of global capacity in all steps in the PV supply chain in 2022. The Net Zero Industry Act (NZIA) sets a benchmark for the manufacturing capacity of strategic net-zero technologies to meet at least 40% of the EU's annual deployment needs by 2030, and solar photovoltaics will be a key part of this.

#### Challenge 3

Boosting EU manufacturing capacity can help to gain economies-of-scale and reduce costs. Achieving this while ensuring the entire photovoltaic industry is sustainable and eco-friendly, from manufacturing to disposal will be a challenge.

## Key policy recommendations

### Recommendation 1

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Improve permitting and procedures to build public acceptance to help develop the market.



### Recommendation 2

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Implementation of the Electricity Market Design Reform can reduce energy and financing costs while the implementation of the Net Zero Industry Act will help to boost demand for sustainable and European PV modules.

### Recommendation 3

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The proposed Ecodesign and Energy Labelling legislation for PV panels and inverters can help to minimize the environmental impact of the sector.



Scan QR code for more information on the Clean Energy Competitiveness Progress Report

