



# PHOTOVOLTAIC BAROMETER 2024



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Solar photovoltaic had an outstanding year in 2023. IRENA reported that over 345.5 GW of capacity was installed globally compared to 199.1 GW in 2022 and 145.1 GW in 2021 (net maximum capacity installed and connected at the end of the calendar year). Thus, installed global capacity to date rose to 1412.1 GW. The European Union and United States enjoyed unheard of increases in their solar photovoltaic capacities. Yet, they pale by comparison with the unbridled rise of photovoltaic in China, which installed 216.9 GW in 2023, more than the previous year's total global market. With net maximum capacity standing at 53.1 GW in 2023 as quantified by EurObserv'ER, the European Union is the world's No. 2 market, ahead of the United States, which added 27.1 GW.

## 243.5 TWh

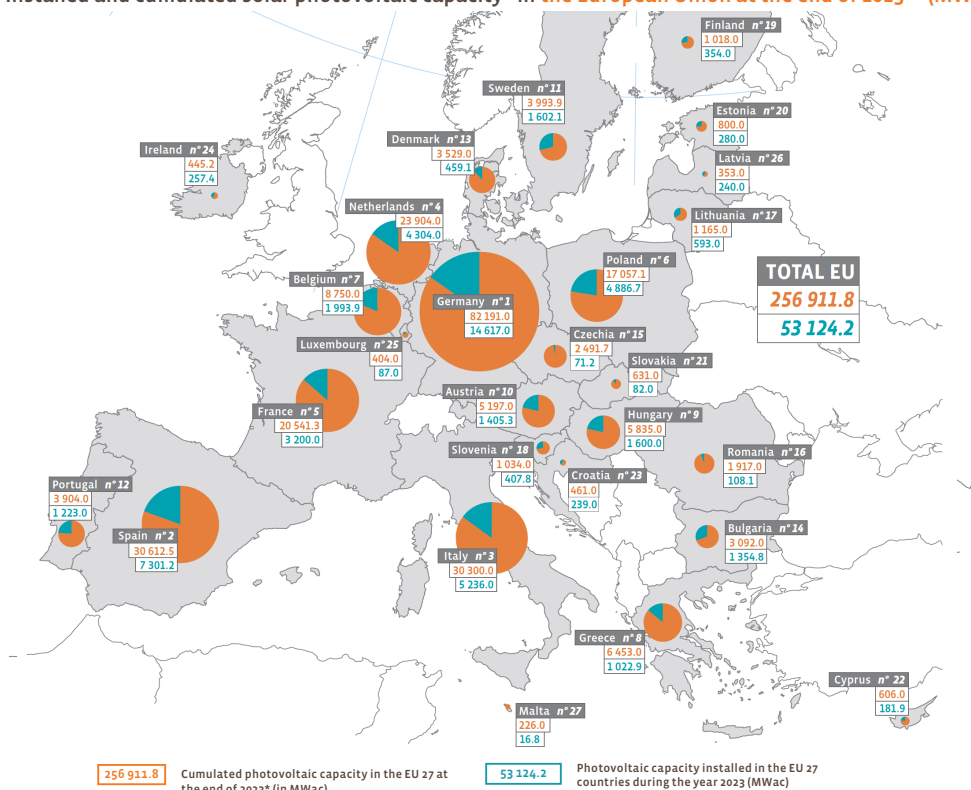
Photovoltaic electricity generated in the EU during the year 2023

## 53 124.2 MW

Photovoltaic capacity installed in the EU during the year 2023

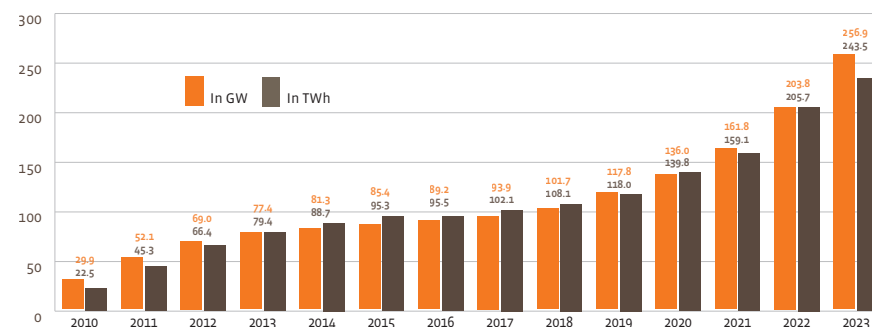


### Installed and cumulated solar photovoltaic capacity\* in the European Union at the end of 2023\*\* (MW)



\* Net maximum electrical capacity, off-grid included. \*\* Estimation. Source: EurObserv'ER 2024. Note: 22 MW decommissioned in Germany, 2 MW in Portugal, 0.5 MW in Malta, 0.1 MW in Sweden. The data concerning the decommissioned capacity is not always available.

### Evolution of photovoltaic capacity installed\* (in GW) and gross photovoltaic electricity production (in TWh) from 2010 to 2023\*\* in the EU 27



\* Net maximum electrical capacity. \*\* Estimation. Sources: Years 2010-2021 (Eurostat), Year 2022 and 2023 (EurObserv'ER).

Eurostat is currently developing two monitoring indicators for photovoltaic capacity: maximum net DC capacity and maximum net AC capacity. However, most European Member States have only provided the AC capacity and if only one indicator is available for one country, that figure is used. EurObserv'ER follows this rule.

### FURTHER INFORMATION

ANNUAL REPORT: "The State of renewable energies in Europe", 22nd edition, [www.eurobserv-er.org/22nd-annual-overview-barometer](http://www.eurobserv-er.org/22nd-annual-overview-barometer)

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The next barometer will cover solar thermal and CSP.