

SOLAR THERMAL AND CONCENTRATED SOLAR POWER BAROMETERS 2022

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Solar Thermal

In 2021, the solar thermal market bounced back in key European Union countries after experiencing a tough year in 2020. The solar thermal sector took advantage of aid opportunities as well as benefitted from higher fossil fuel and electricity prices. According to EurObserv'ER, the 2021 market total was above the 2 million m² mark for all EU solar thermal applications: solar hot

water heating, solar, industrial heating, and urban heating. The year's newly installed surface equates to about 1 502.8 MWth of thermal capacity (up from 1 391.1 MWth in 2020). Incidentally, the glazed surface of a 1-m² solar thermal collector offers 0.7 kWth of thermal capacity. However, this EU market upturn remains uneven and largely dependant on incentive systems and regulatory contexts.

Concentrated Solar Power

Concentrated Solar Power (CSP) describes all the technologies that aim to transform solar radiation energy into very high temperature heat to convert it into electricity or steam. According to the calculations made by EurObserv'ER, at least two plants were commissioned during 2021 worldwide but none in The European Union. CSP development is higher in countries such as Chile and China,

where the two new, most powerful plants commissioned in 2021 are located. European CSP capacity is overwhelmingly concentrated in Spain, where the officially installed CSP capacity is 2 304 MW (i.e., 99% of the EU total). Despite the sector is part and parcel of the EU's solar energy strategy, very few projects have been announced for the future.

40 GWth

Cumulated solar thermal capacity in operation in EU27 at the end of 2021

2 328.8 MWe

CSP plants in operation* in the European Union at the end of 2021

Graph No. 1

Solar thermal capacity installed in the European Union at the end of 2021* (MWth)

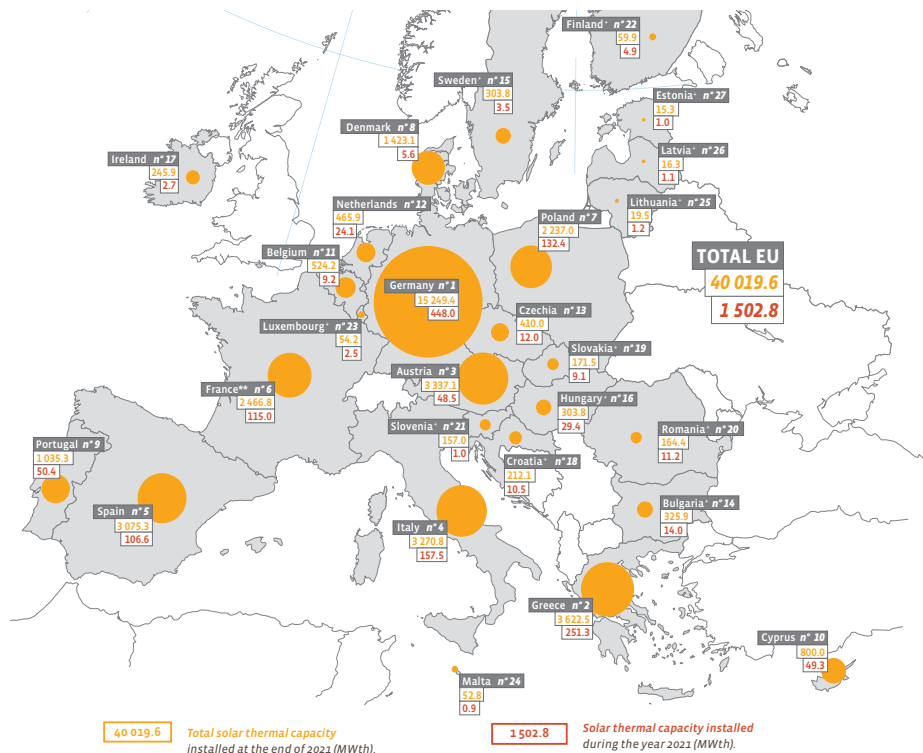


Table No. 1

Cumulated capacity of thermal solar collectors* installed in the European Union in 2021** (in m² and in MWth)

Country	2021 m ²	2021 MWth
Germany	21 784 790	15 249.4
Greece	5 175 000	3 622.5
Austria	4 767 286	3 337.1
Italy	4 672 525	3 270.8
Spain	4 393 316	3 075.3
France	3 524 000	2 466.8
Poland	3 195 690	2 237.0
Denmark	2 032 959	1 423.1
Rest of EU	7 625 334	5 338
Total EU 27	57 170 900	40 019.6

* All technologies included unglazed collectors. Source: EurObserv'ER 2022.

FURTHER INFORMATION

ANNUAL REPORT: "The State of renewable energies in Europe", 20th edition, www.eurobserv-er.org/20th-annual-overview-barometer

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The next barometer will be about ocean energy.

* Estimation. ** Including 90 000 m² in the overseas departments. + EurObserv'ER estimation based on the market trend of recent years
 Source: EurObserv'ER 2022.

