

February 2024

# Statistical data on the German Solar Power (Photovoltaic) Market

This data sheet gives an overview of the German photovoltaic (PV) market at the end of 2023.

Free film and photo material and press releases (in English):

[www.solarwirtschaft.de/en/press/](http://www.solarwirtschaft.de/en/press/)

Current press release on German solar market in 2023 (in German):

<https://www.solarwirtschaft.de/2024/01/03/2023-mehr-als-eine-million-neue-solaranlagen/>

## Suggested citation

Unless stated otherwise, please use the following suggested citation: German Solar Association (BSW-Solar) (February 2024): "Statistical data on the German Solar Power (Photovoltaic) Market", Berlin.

Photovoltaic Market in Germany	at the end of 2023
New PV capacity installed in 2023 <sup>1</sup>	Approx. 14.7 GWp
Number of new PV systems installed in 2023 <sup>1</sup>	Approx. 1,038,000
of which were registered plug-in solar devices ("balcony solar") <sup>1</sup>	Approx. 273,000
Cumulative PV capacity installed at the end of 2023 <sup>1</sup>	Approx. 82.2 GWp
Cumulative number of PV systems installed at the end of 2023 <sup>1</sup>	Approx. 3.7 million
Gross electricity generation by PV systems in Germany in 2023 <sup>2</sup>	Approx. 62,0 TWh
Share of PV in German gross electricity consumption in 2023 <sup>3</sup>	Approx. 12 %
Greenhouse gas emissions avoided in 2023 in CO <sub>2</sub> equivalents <sup>4</sup>	Approx. 42.2 million tons

<sup>1</sup> BSW-Solar based on the Marktstammdatendatenregister of the Federal Network Agency (as of February 26th 2024), see <https://www.marktstammdatendatenregister.de/MaStR/Einheit/Einheiten/ErweiterteOeffentlicheEinheitenuebersicht>

<sup>3</sup> BDEW (2023), preliminary estimate, see [https://www.bdew.de/media/documents/STRERZ\\_Tabelle\\_Jahressch%C3%A4tzung\\_2023\\_korr.pdf](https://www.bdew.de/media/documents/STRERZ_Tabelle_Jahressch%C3%A4tzung_2023_korr.pdf)

<sup>3</sup> PV Magazine, Dezember 18th 2023: „ZSW/BDEW: Erneuerbare decken erstmals mehr als 50 Prozent des Stromverbrauchs“, see <https://www.pv-magazine.de/2023/12/18/zsw-bdew-erneuerbare-decken-erstmals-mehr-als-50-prozent-des-stromverbrauchs/>

<sup>4</sup> BSW-Solar, preliminary estimate based on historic avoidance factors by Umweltbundesamt, „Emissionsbilanz erneuerbare Energieträger“ (Dezember 2023), see [www.umweltbundesamt.de/publikationen/emissionsbilanz-erneuerbarer-ener-gietraeger](http://www.umweltbundesamt.de/publikationen/emissionsbilanz-erneuerbarer-ener-gietraeger) and AGEE-Stat estimate for PV electricity generation (December 2023): "Monatsbericht-PLUS+", see [https://www.umweltbundesamt.de/sites/default/files/medien/372/dokumente/agee-stat\\_monatsbericht\\_plus\\_2023-q4\\_final.pdf](https://www.umweltbundesamt.de/sites/default/files/medien/372/dokumente/agee-stat_monatsbericht_plus_2023-q4_final.pdf)