

What is the technical potential of solar energy in Slovakia?

The solar radiation flux achieves a maximum of 1,100 kWh/m<sup>2</sup>. The technical potential of solar energy has been estimated at 5,200 GWh annually, which is about 20 % of the total technical potential of renewable power sources in Slovakia. There is growing demand for supply of photovoltaic power plants and solar panels for installations on roofs.

Why are new solar PV plants being installed in Slovakia?

Soaring energy prices, new reserved capacities for renewables, and a few incentive schemes, among other factors, are likely to result in new large-scale solar PV plants being deployed in Slovakia, significantly increasing the installed capacity in coming years.

How many MW are there in Slovak solar power?

While the so-called solar boom was not as intensive as in some other Member States, for instance, in Czechia, the Slovak electricity market still experienced a rise of installed PV capacity by over 300 MW in a single year. 573 MW. The past development of solar PV capacities is illustrated in Graph 2 provided below.

How much solar power does Slovakia have in 2023?

In 2023 Slovakia had 840 MW of installed solar power capacity. Biomass provides around 4% of electricity generation capacity. There is hydropower potential in Váh and Orava rivers (before Starý Hrad, and after Kralovianski Meander, Oravka tunnel), with power plants over 30 MW as extremely profitable (for low cost/installed MW).

How much electricity is produced in Slovakia?

Approximately 54.7 % of the total production of 27,149 GWh of electricity in Slovakia was obtained from nuclear power stations, 21 % from conventional power stations, 14.4 % from hydro stations and 8.9 % from renewable sources. The total potential of renewable sources that Slovakia plans to utilize is approximately 27,000 GWh per year.

How can Slovakia stay on track with solar PV?

In order to stay on track, Slovakia needs to implement the total of 2,855 MW in solar PV plants by 2030. Hence, this scenario requires a clear action of the Slovak Government and a preparation of an enabling investment environment that would allow for a rise of new solar PV capacities.

There are already many principles of transferring solar energy to other forms of energy: most often transferring solar energy to electric energy or thermal energy. Electric energy can be produced from the solar energy either directly or indirectly.

The first auction for the production of green energy in Slovakia was canceled on March 31. While Hungary

and Estonia recently announced the results of their first auctions, in other countries, including Slovakia, the dates of further auctions and deadlines are postponed due to problems in supply chains as a consequence of

Listed below are the five largest active solar PV power plants by capacity in Slovakia, according to GlobalData's power plants database. GlobalData uses proprietary data and analytics to provide a complete picture of the global solar PV power segment. Buy the latest solar PV plant profiles [here](#).

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From 2024, following the completion of two new nuclear reactors, Slovakia will return to being a net exporter of electricity. Slovnaft is the largest oil refinery in Slovakia. In 2022 Slovakia sought to reduce its reliance on oil from Russia. Slovensk&#253; plyn&#225;rensk&#253; priemysel (Slovak Gas Industry) is the main natural gas supplier in Slova...

In 2022 Slovakia sought to reduce its reliance on natural gas from Russia who was supplying 81% in 2020. In order to lower reliance, a gas pipeline interconnector with neighbouring Poland was completed by August 2022 and put into operation in a bilateral opening ceremony on ...

The current Slovakia's NECP projects a solar PV target of 1,200 MW cumulatively installed in 2030. While the NECP does not specify the cha-racter of these capacities, it is to be assumed that both ground-mounted and rooftop PV will play a role in harvesting Slovakia's solar potential.



## Slovakia solar power

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