

GERMANY PUMPED STORAGE



What is the largest pumped storage power plant in Germany? The Goldisthal pumped storage power plant is the largest pumped storage power plant in Germany. It has been in operation since 2004. It is situated on the Schwarza river in the western Thuringian Slate Mountains. The underground power station has installed capacity of 1060 megawatts (MW).



How would Germany benefit from pumped storage systems? The secured capacity from pumped storage systems can rise to up to 16GW. Germany would be able to build and run fewer new gas power plants. The operation of the pumped storage systems would be profitable, and power generation costs would drop. At the same time macro-economic benefits are expected.



How much electricity can pumped storage systems use in Germany? The study shows that with a 60% share, about 2TWh of electricity can be additionally utilized, if the pump storage systems in Germany are extended to a capacity of 15GW. At the same time, up to 13GW of secured capacity from pumped storage systems would be available.

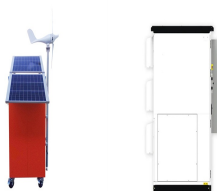


How many pumped storage hydro power stations will Germany have by 2030? The capacity of pumped storage hydro power stations available to the German energy system is expected to grow by about 1.4 gigawatts (GW) by 2030, with roughly one third of the capacity being installed abroad, the German government says in an answer to a parliamentary inquiry by the opposition party FDP.

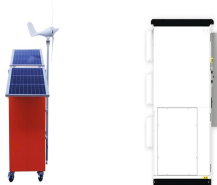


How many pumped storage power plants are there? The plant group's total installed capacity is 807 MW, with an average annual generation of about 1,300 GWh. The Pumped storage power plant group (PSW) operates five pumped storage power plants with a capacity of 884 megawatts.

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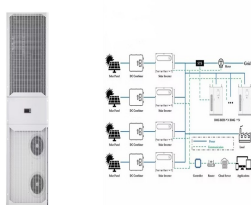
Could pumped storage reduce the need for new gas power plants? A recent study shows that pumped storage could reduce the need for new gas power plants in Germany and help with the integration of renewable energies from 2030.



Under the plan, Germany's greenhouse gas emissions are to be reduced by 80 to 95 per cent from 1990 levels by 2050, and the proportion of renewables in the country's energy mix is to be increased to at least 60 per cent.



Goldisthal pumped-storage plant, in Thuringia, Germany, was officially commissioned in September 2003 and is, at present, Europe's most advanced pumped-storage plant. The pumped-storage plant is expected to reduce peak demand.



With the Happurg pumped-storage plant, we want to make more storage capacity available again. As Germany's largest hydropower operator, we are thus contributing to a reliable power supply.



Characteristics of Geesthacht Pumped-storage Power Plant. With installed capacity of 120 megawatts (MW), it is the largest of its type in northern Germany. The Elbe river serves as its lower reservoir. The upper reservoir holds around 1.5 million cubic meters of water.



The Pumped storage power plant group mainly comprises pumped storage and storage plants along the rivers Eder, Diemel, Main, Sinn, Happach, and Rusel. The plant group's total installed capacity is 807 MW, with an annual output of 1.5 TWh.

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Energy firm EnBW has been given the go-ahead to start work on a pumped hydro energy storage (PHES) project in Germany. The Baden-Württemberg-headquartered firm will invest €280 million (US\$300 million) in ???



Pumped storage plants provide the only long-term, technically proven and cost-effective form of storing energy on a large scale. Find out more here. Voith almost inadvertently constructed Germany's first pumped storage plant. It was ???



The pumped storage extension will increase Waldeck's generation capacity to a total of 920MW. Meanwhile, in August 2014, Voith was awarded a contract worth €9m (\$11.9m) to modernise a generator at the Waldeck 2 ???



A daring technological breakthrough Since the end of 2021, the world's most powerful horizontal air-cooled motor generator has been in commercial operation at the Wehr pumped storage plant in Germany. The successful commissioning ???



A guidance note for key decision makers to de-risk pumped storage investments. International Forum on Pumped Storage Hydropower. Book your place for the Forum in Paris on 9-10 Sept 2025. Tracking tool. with plans for ???



Germany has the highest installed capacity of pumped storage in Europe. In 2023, nearly 9.4 gigawatts were installed across the country. It was followed by Italy, with some 7.2 gigawatts of pumped

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Energy storage is currently a key focus of the energy debate. In Germany, in particular, the increasing share of power generation from intermittent renewables within the grid requires solutions for dealing with surpluses and ???