

The first compressed gas energy storage power generation project





Overview

On January 9, 2025, the "Energy Storage No. 1" global first 300-megawatt compressed air energy storage demonstration project, invested and constructed by China Energy Engineering Group Co., Ltd., achieved full-capacity grid connection and began power generation in Yingcheng, Hubei. What is a 300 MW energy storage plant?

The \$207.8 million energy storage power station has a capacity of 300 MW/1,800 MWh and uses an underground salt cave. Chinese developer ZCGN has completed the construction of a 300 MW compressed air energy storage (CAES) facility in Feicheng, China's Shandong province. The company said the storage plant is the world's largest CAES system to date.

How much power does a new energy storage facility provide?

The \$207.8 million facility boasts an energy storage capacity of 300 MW/1,800 MWh and occupies an area of approximately 100,000 m². According to ZCGN, it is capable of providing uninterrupted power discharge for up to six hours, ensuring power supplies to between 200,000 and 300,000 local homes during peak consumption periods.

How much energy does a gas cave save a year?

The cave boasts a gas storage capacity exceeding 500,000 cubic meters. The facility has an estimated annual electricity generation of 600 GWh and is projected to save about 189,000 tons of standard coal consumption. It will reportedly reduce carbon dioxide emissions by approximately 490,000 tons per year.



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Compressed Gas Energy Storage

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Technology Strategy Assessment

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