

NEW PROJECTS

FENGNING 2



CHINA – ANDRITZ Hydro is contributing to China's clean energy transition with pumped storage power technology.

The Fengning Pumped Storage Power Station is a key project for the national energy development of China. Located in Fengning Man Autonomous County in Hebei Province, about 180 km from the capital Beijing, construction began in 2013. After completion it will be the world's largest pumped storage facility to date, operated and managed by State Grid Xinyuan Company.



Fengning 2 | China

Technical data:

Total output:	3,600 MW
Scope output:	2 × 330 MVA
Head:	425 m
Voltage:	15.75 kV

With a total installed design capacity of 3,600 MW, PSPP Fengning will be built in two phases, each featuring six reversible pump turbine units with a capacity of 300 MW each. In the second phase two of the six units will be variable-speed motor-generator units. Designed for balancing the intermittent renewable energy resources of large Mongolian wind and solar parks, PSPP Fengning 2 will be connected to the Beijing-Tianjin-North Hebei grid with two 500 kV lines. The designed annual power generation will be 3.424 TWh with 4.565 TWh of corresponding pumped

water meeting peak power needs. Securing safe and stable grid operation, and increasing power supply quality, the installation will boost local employment, promote tourism and farming industries. In addition, PSPP Fengning will contribute to emissions reduction and have significant positive social, ecological, and economic perks.

In 2017, ANDRITZ Hydro received a contract from the state-owned Chinese energy utility company Fengning Pump Storage Co. Ltd. and State Grid Xinyuan Co. Ltd. to supply

two variable speed generators for PSPP Fengning 2. The units will have a nominal capacity of 330 MVA in generator mode and 345 MVA in pump mode. Additionally, AC-excitation, governors, as well as protection and computer control systems are part

of the contractual scope. The completion of the project is scheduled for 2021.

ANDRITZ Hydro is pleased that the customer has

chosen ANDRITZ Hydro technology for these very first pumped storage units with variable speed technology to be introduced into the Chinese system. For ANDRITZ Hydro this remarkable order marks a re-entry into the growing Chinese pumped storage market.

"PSPP Fengning 2 will be a safe, reliable, environmental-friendly, ecologically harmonious quality project which will benefit Chinese society."

State Grid Corporation of China (SGCC)

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