

# CONSTRUCTION OF NEW ENERGY TRANSMISSION AND ENERGY STORAGE BASE

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What is the implementation plan for the development of new energy storage? In January 2022, the National Development and Reform Commission and the National Energy Administration jointly issued the Implementation Plan for the Development of New Energy Storage during the 14th Five-Year Plan Period, emphasizing the fundamental role of new energy storage technologies in a new power system.



How energy storage power stations are being built? In terms of installed capacity, new energy storage power stations are now being built in a more centralized way and large scale with longer storage duration period, said the administration.



Will China build a new energy storage system? Technicians inspect wind farm operations in Hinggan League, Inner Mongolia autonomous region, in May 2023. WANG ZHENG/FOR CHINA DAILY China has been stepping up construction of new energy storage in recent years to build a new power system in the country amid its green energy transition, said authority.



How will China's new power base work? All projects at the base are scheduled to be put into operation within China's 14th Five-Year Plan (2021-25) period. Once operational, the base is expected to export 24 billion kWh of power annually to East China through the ultra-high-voltage power transmission line.



What is the largest grid-forming energy storage station in China? This marks the completion and operation of the largest grid-forming energy storage station in China. The photo shows the energy storage station supporting the Ningdong Composite Photovoltaic Base Project. This energy storage station is one of the first batch of projects supporting the 100 GW large-scale wind and photovoltaic bases nationwide.

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How many ultra-high-voltage transmission projects are there in China? By the end of 2023, there were 39 ultra-high-voltage transmission projects. National transmission capacity exceeded 300 million kilowatts, further enhancing new energy consumption capacity, according to a report on China's new energy power generation published by the State Grid Energy Research Institute in Beijing.



Renewable energy sources including solar and wind are intermittent and volatile and the new types of power storage will play an increasingly important role to realize the transition to a new type of power system with new ???



At the same time, this project will also provide a leading demonstration and driving role for China to accelerate the construction of a new type of power system with new energy as the main body, and explore the ???



China will begin to build a second round of large wind and photovoltaic (PV) power stations in sandy, rocky and arid parts of the country, requiring provinces to report a list for the second round



The proportion of traditional frequency regulation units decreases as renewable energy increases, posing new challenges to the frequency stability of the power system. The ???

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Construction of the second phase of China's largest renewable energy power base in the country's Gobi Desert and other arid regions will further facilitate the country's shift from ???



"The plan reflects China's strong determination to dynamically expand its renewable energy," according to a research report by Chinese securities brokerage Ping An Securities. "Solar and wind power, extra-high ???



Construction of the supporting energy storage facilities is also included. Once operational, the base is expected to generate more than 14 billion kWh of clean power, equaling that produced by burning 4.2 million tons of ???



The optimized configuration of energy storage is an effective way to deal with the fluctuation of renewable energy output and insufficient system flexibility [7], which has been a hot topic for ???



In the "Guidance on New Energy Storage", energy storage on the power side emphasizes the layout of system-friendly new energy power station projects, the planning and construction of large-scale clean energy bases for ???

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In November 2014, the State Council of China issued the Strategic Action Plan for energy development (2014-2020), confirming energy storage as one of the 9 key innovation areas.



The company advances consumption of clean energy and promotes electric power by innovating in environmental protective power grid technology, which effectively boosts green and high-quality development of the industry.



Relying on the construction of the base, China Huaneng will join hands with the upstream and downstream of the industrial chain to carry out joint innovations, focusing on key technologies such as coordinated control of large-scale energy storage.



It is reported that Huaneng Longdong Energy Base takes "three types" and "three modernizations" (base-based clean complementary, intensive digital standardization) as the development path to promote the construction of a new energy storage base.