5 kWh catl energy storage



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On April 9, CATL unveiled TENER, the world"s first mass-producible energy storage system with zero degradation in the first five years of use in Beijing, China. Featuring all-round safety, five-year zero degradation and a robust 6.25 MWh capacity, TENER will accelerate large-scale adoption of new energy storage technologies as well as the high-quality advancement of the sector.

Powered by cutting-edge technologies and extreme manufacturing capabilities, CATL has resolved the challenges caused by highly active lithium metals in zero-degradation batteries, which effectively helps prevent thermal runaway caused by oxidation reaction.

TENER achieves an impressive 6.25 MWh capacity in the TEU container, representing a 30% increase in energy density per unit area and a 20% reduction in the overall station footprint, thus enhancing energy density and efficiency through innovative design within a limited space.

CATL's cutting-edge cell technology supports the outstanding performance of the system. TENER is equipped with long service life and zero-degradation cells tailored for energy storage applications, achieving an energy density of 430 Wh/L, an impressive milestone for LFP batteries used in energy storage.

CATL has reduced the failure rate to the PPB level for cells used in TENER, which, when extended to the operation throughout its full lifecycle, can effectively lower operating costs and significantly enhance IRR (internal rate of return).

Energy storage is a pivotal element of the green energy transition. CATL has steadfastly dedicated itself to delivering world-class energy storage solutions for customers around the world. The unveiling of TENER signifies another milestone in CATL's ongoing commitment to energy transition. Looking ahead, CATL will remain resolute in its pursuit of open innovation and collaborate with global industry partners to forge a path of mutual prosperity as an industry leader in innovation and advanced technology.

Chinese battery giant Contemporary Amperex Technology Co Ltd (CATL, SHE: 300750) has launched its new energy storage system Tianheng, or Tener, to further tap the energy storage market.

Tener has a cycle life of more than 15,000, which is 1.7 times the current mainstream level, and will not decay in the first five years of its 20-year life expectancy, CATL said.

By the end of 2023, China's share of wind and photovoltaic power generation reached 15.3 percent, and in some regions exceeded 20 percent, said Hui Dong, chief technology expert at the China Electric Power Research Institute, at CATL's launch event.



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However, the actual operating life of power-based energy storage systems in China is currently less than three years on average, compared with an expected life of 10 years, and the actual operating life of energy-based energy storage systems is less than eight years on average, compared with an expected life of 15 years, Hui said.

As the new energy sector grows, demand for energy storage will continue to grow, placing higher demands on the regulation capabilities of energy storage systems, Hui noted.

CATL has been involved in 0-attenuation long-life battery technology for a long time, achieving a balance between energy density and safety on the Tener system, said Xu Jinmei, CTO of the company's energy storage business unit.

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