

Are battery energy storage systems transforming the power supply sector?

Battery energy storage systems are transforming the power supply sector by becoming the heart of energy efficient solutions. They are used in off-grid applications or to boost the limited grid available by efficiently storing and delivering energy to match the load demand.

What are energy storage systems used for?

Energy storage systems are suitable for noise-sensitive environments, such as events and construction sites, as well as for telecom, manufacturing, mining, oil and gas and rental applications. They are ideal for applications with a high energy demand and variable load profiles, as they successfully cover both low loads and peaks.

What are the different types of energy storage solutions?

Solar cells, wind turbines and biofuels. Cost-effective storage for electricity grids and high energy-density storage for mobile applications. Hydrogen generation, fuel cells and batteries. Streamlining energy usage with smart green buildings and more efficient thermal systems, electronics and LED lighting.

Does Singapore have a solar energy storage system?

In Singapore, the Energy Market Authority has developed a utility-scale energy storage system, which maintains a reliable source of power supply when solar installations are affected by weather changes, including piercing humidity and transient bouts of rain 5 .

Is battery storage cheaper than ten years ago?

Battery storage is approximately 75% less expensive than it was ten years ago and is projected to be less than half of today's price by the end of the decade 3 . Here are some examples of Asian projects pioneering the battery energy storage system (BESS):

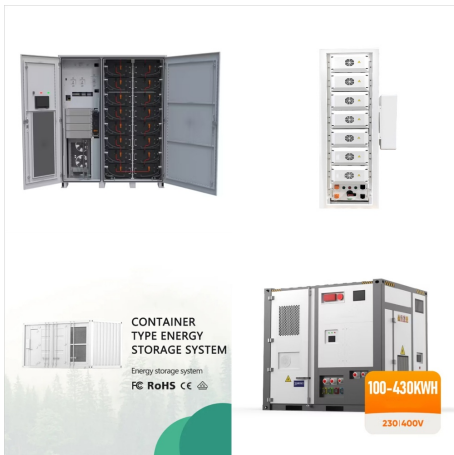
What will China's energy storage demand look like in 2023?

We expect the demand for additional energy storage capacity in mainland China to reach 43 GWh in 2023 and 129 GWh in 2025, indicating a 1.8x annual growth in 2023 and an expected compound annual growth rate (CAGR) of 103% from 2022 to 2025. This year, the commissioning of grid-connected energy storage

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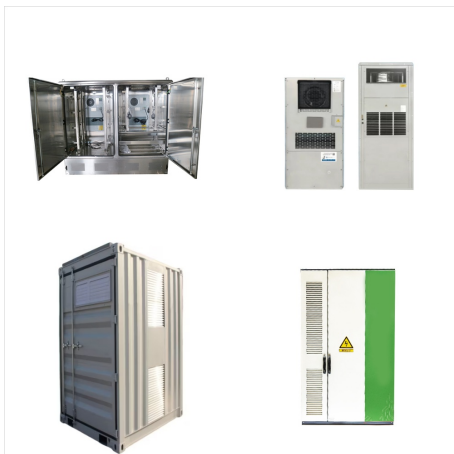
projects in the US was slightly delayed.



Energy storage costs have fallen almost 80% in the past decade, according to the National Renewable Energy Laboratory (NREL), helped by significant technological improvements, massive R&D spending, and growing economies-of-scale that came with the popularization of electric vehicles.



Ampd Energy is a Hong Kong start-up with ambitions of eradicating diesel generators and lead acid UPSs; Ampd Silo is the first product launched to provide clean, safe and reliable energy backup storage using lithium-ion batteries



In 2023, prices of lithium carbonate and silicon materials have fallen, leading to lower prices of battery packs and photovoltaic components, which means reduction in the cost of developing energy storage businesses.

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Our Energy Storage System stores energy in water-based electrolyte, which is inherently safe, low cost, long-life, highly scalable, and eco-friendly. The system can store renewable energy and grid electricity to ensure efficient energy usage.



Cost-efficient battery storage is crucial to the development of renewable energy. Finding the most cost-efficient and resilient ways of storage is crucial to driving the development of clean energy projects and affordable carbon-neutral electricity supply.

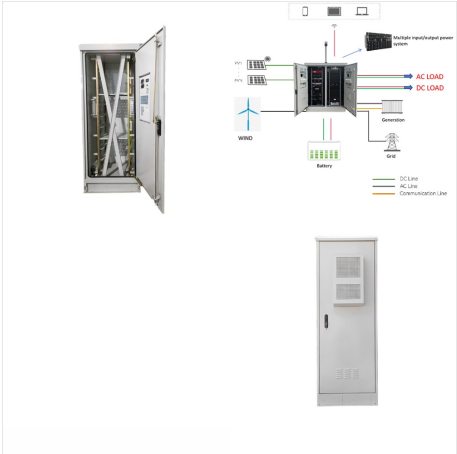


CLP e is a pioneer in the integration of Battery Energy Storage System (BESS) in Hong Kong - a sustainable way to save energy by storing it for later use inside specially designed batteries - and has put the technology to highly effective use at the Construction Industry Council - Zero Carbon Park (CIC- ZCP) in Kowloon Bay.

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A new catalyst utilizing single atoms of platinum, developed by City University Hong Kong and tested by Imperial College London, promises easier and cost-effective hydrogen storage from renewable energy. The innovation disperses platinum atoms on molybdenum sulphide, reducing platinum usage and improving electrolysis efficiency.