

# DOMESTIC LARGE-SCALE ENERGY STORAGE BIDDING



Is BYD a good energy storage company? According to statistics provided by the China Energy Storage Alliance (CNESA), BYD did not rank among the top ten in terms of domestic energy storage system shipments in both 2021 and 2022. It wasn't until 2023 when BYD's market position suddenly rose, relying on price advantages to secure various domestic projects.



Does CATL participate in large-scale energy storage tenders? Although CATL, as a system integrator, participated in domestic large-scale energy storage tenders, its bid quotations were relatively conservative, and the scale of winning bids was far lower than that of BYD, reflecting the delicate balance of interests guiding its decisions.



What is BYD's capacity expansion plan? Regarding capacity expansion, BYD commenced the construction of its global R&D center and energy storage industry park in Longgang, Shenzhen, in June last year. The planned investment totals approximately RMB 2 billion (USD 281 million), with a projected capacity of 20 GWh.



What is BYD's energy storage business? The first is represented by BYD's EPRI, mainly engaging in large-scale energy storage projects, and it was regarded as the main force of the company's energy storage business, earning over RMB 1 billion (USD 140.5 million) in revenue in 2020. The second segment focused on household energy storage, mainly producing energy storage systems for homes.



How do energy storage contracts work? For standalone energy storage contracts, these are typically structured with a fixed monthly capacity payment plus some variable cost per megawatt hour (MWh) of throughput. For a combined renewables-plus-storage project, it may be structured with an energy-only price in lieu of a fixed monthly capacity payment.

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What is BYD's market share in the German household storage market?  
According to data from EUPD Research, BYD's market share in the German household storage market reached 24% in 2021, ranking first. Germany is the largest market for household storage in Europe, accounting for more than half of Europe's installed capacity.



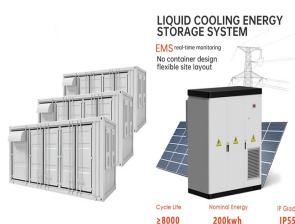
Large-scale battery storage Bidding strategy Battery operation Energy storage 100% renewable energy systems Smart energy systems  
ABSTRACT Large-scale battery storage solutions have received wide interest as being one of the options to promote renewable energy (RE) penetration. The profitability of battery storages is affected by the bidding



As an important part of high-proportion renewable energy power system, battery energy storage station (BESS) has gradually participated in the frequency regulation market with its excellent frequency regulation performance. However, the participation of BESS in the electricity market is constrained by its own state of charge (SOC). Due to the inability to ???

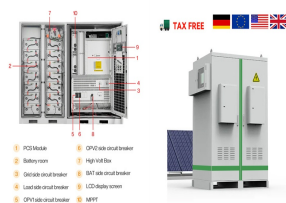


Domestic Large-size Energy Storage: Based on BJX Chuneng's project information, in July 2023, the bidding capacity for domestic energy storage projects amounted to 6.1GWh. This capacity distribution included 1.2GWh for EPC energy storage, 1.4GWh for energy storage systems, and 3.5GWh for framework procurement.

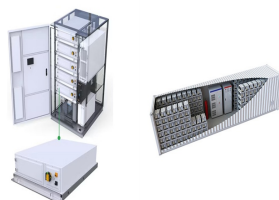


Energy storage technology can effectively shift peak and smooth load, improve the flexibility of conventional energy, promote the application of renewable energy, and improve the operational stability of energy system [[5], [6], [7]]. The vision of carbon neutrality places higher requirements on China's coal power transition, and the implementation of deep coal power ???

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U.S. energy storage capacity installations surged by 84% year-over-year in Q1 2024, marking the country's highest storage capacity ever installed in a first quarter. Moreover, grid-scale storage installations alone increased by 101% in Q1 2024 in comparison to Q1 2023, with Texas, California, and Nevada accounting for 90% of the U.S. total.



The Australian energy storage market is going through a transformative phase due to power shortages and the transition towards renewable energy sources. The country is witnessing an increasing reliance on wind and solar energy, placing dispatchable energy storage at the forefront. Chinese companies have shown significant involvement in Australia's energy storage market.



Concerning large-scale domestic energy storage, the anticipated growth rate in installed capacity for next year remains significant. Simultaneously, the potential for further decline in industrial chain prices is becoming more limited, with expectations for increased profits to be allocated. bidding prices are expected to gradually



China: The demand for large-scale energy storage capacity remains robust, with a positive shift anticipated in the competitive landscape regarding pricing strategies among companies. The bidding capacity for large-sized energy storage in China is steadily on the rise, signaling an improvement in the situation of cutthroat price competition.



With the ongoing acceleration of the energy transition, there is a positive outlook for sustained long-term growth in the energy storage industry. Concerning large-scale domestic energy storage

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4 July (IEEFA & JMK India): Two standalone energy storage system (ESS) tenders by the Solar Energy Corporation of India (SECI) and NTPC will augment the country's energy storage capacity by 1 gigawatt (GW)/4 gigawatt-hours (GWh) and create further opportunities in the Indian ESS market, according to a new report by the Institute for Energy Economics and Financial ???



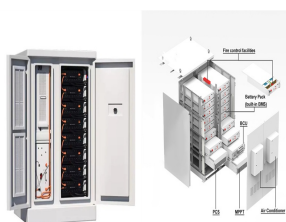
Large-scale renewable energy projects in India have been generating interest from both domestic and international players of late. After a slump in activity between 2019 and 2022 due to global price shocks and supply-chain issues brought on by the COVID-19 pandemic and Russia's invasion of Ukraine, the utility-scale market has rebounded and gone from ???



Despite widely known hazards and safety design of grid-scale battery energy storage systems, there is a lack of established risk management schemes and models as compared to the chemical, aviation



Following the pace of large-scale storage bidding prices continuously falling below the reserve price, the recent topic of industrial and commercial energy storage price bottom line breaking through 0.6 yuan/Wh has also become a hot topic. At the EESA Energy Storage Exhibition, the most obvious feature was the "price war".



Energy storage, encompassing the storage not only of electricity but also of energy in various forms such as chemicals, is a linchpin in the movement towards a decarbonized energy sector, due to its myriad roles in fortifying grid reliability, facilitating the

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The initial guidance separates the portions of an energy storage (or clean energy) project into Steel/Iron parts and Manufactured Product parts and specifies different requirements for each: The Steel/Iron parts component for energy storage covers rebars used in a system's concrete foundation and specifies that the rebar must be 100% U.S.-made.



From January to May, the U.S. utility-scale PV saw a new installed capacity of 4248MW, up 22.7% year-on-year, while utility-scale energy storage reached 722MW, down 36.6% year-on-year. According to EIA statistics, the planned grid-connected PV installed capacity and energy storage capacity for public utility will be 22GW and 9GW, respectively



Last year, its energy storage business had a gross profit margin of 37.47%. In comparison, Hyper Strong, which mainly focuses on domestic large-scale energy storage business, had a gross profit margin of 20.02% in 2023. This also reflects the significant profitability gap between domestic and overseas large-scale energy storage markets.



Large-scale battery storage solutions have received wide interest as being one of the options to promote renewable energy (RE) penetration. The profitability of battery storages is affected by the bidding strategy adopted by the operator and is highly dependent on the operation of the rest of the energy system.



A path forward: using reverse auctions to scale energy storage. Reverse auctions have already helped scale renewables and, when designed well, may also be an effective tool when applied to energy storage. In a reverse auction, multiple sellers submit bids to a single buyer for the right to provide a good or service. In the case of renewables

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The bidding volume of energy storage systems (including energy storage batteries and battery systems) was 33.8GWh, and the average bid price of two-hour energy storage systems (excluding users) was ?1.33/Wh, which was 14% lower than the average price level of last year and 25% lower than that of January this year.



Domestic Energy Storage Bidding: Popularity Skyrockets with Soaring Demand. Among these markets, China stands out with its dominance in large-scale storage, while the mandatory distribution of energy storage is expected to further fuel high-speed growth in the domestic sector. Moreover, the proliferation of wind and PV bases also plays a



China: The necessity for large-scale energy storage installations is on the rise. while favorable policies and a thriving bidding market have propelled domestic and overseas large-scale energy storage to prosperity, sustaining global demand for high growth in energy storage. However, economic weaknesses and geopolitical conflicts may impact



Furthermore, the bidding prices for domestic energy storage systems continue to decline, signaling an escalating price war. Given this scenario, enterprises within the energy storage industry chain should hasten their global expansion efforts and fortify their presence in overseas markets. On the large-sized energy storage front, the



It can better reflect the two-way influence of pumped storage's bidding strategy and market clearing price, It is used to simulate the process of game between pumped storage and other competitors, which is closer to the real bidding scenario, so that the calculation results of the model have higher reference value.



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, the domestic energy storage bidding volume continues to increase. As of April 2023, the total domestic energy storage EPC and system bidding has reached 7.22GW/17.27GWh, maintaining the high growth trend since 2022. and the demand for household energy storage & large-scale energy storage in the United States is expected to be



??? bidding algorithms ??? development of customisable and potentially supplier agnostic bidding tools to A study by the Smart Energy Council<sup>1</sup> released in September 2018 identified 55 large-scale energy storage projects of which ~4800 MW planned, ~4000 MW proposed, ~3300 MW already existing or are under



In June 2023, China achieved a significant milestone in its transition to clean energy. For the first time, its total installed non-fossil fuel energy power generation capacity surpassed that of fossil fuel energy, reaching 50.9%.. China's renewable energy push has ignited its domestic energy storage market, driven by an imperative to address the intermittency and ???



1. 15.3GWh of installed domestic energy storage in 2022, up 232% year-on-year. Mandatory allocation of storage drives the rapid growth of energy storage, and large-scale energy storage occupies a dominant position in domestic energy storage installations.



"India has to rapidly deploy energy storage to meet its renewable energy goals, and a time-based target in the upcoming national energy storage policy would be a major driver of the ESS industry's growth," says Garg. ESS tenders have evolved from round-the-clock and peak power to the current standalone tenders, the report notes.

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Domestic energy storage: bidding market is booming, and industrial and commercial storage benefits from the larger price gap of peak and valley hours. Large-Scale Energy Storage: In Q2 2023, domestic energy storage achieved a significant milestone in bidding capacity, reaching an impressive 6.5GW/14.2GWh.