Equivalent utilization hours of energy storage power stations

How long do energy storage systems last?
The average storage duration of new energy storage systems reached 2.3 hours,an increase of approximately 0.2 hours compared to the end of 2023. Operational efficiency also improved,with equivalent utilization hours of approximately 1,000 hours in 2024,according to statistics from grid enterprises.

What is the difference between rated power capacity and storage duration?
Rated power capacity is the total possible instantaneous discharge capability (in kilowatts [kW] or megawatts [MW]) of the BESS, or the maximum rate of discharge that the BESS can achieve, starting from a fully charged state. Storage duration is the amount of time storage can discharge at its power capacity before depleting its energy capacity.

What is EIA's power plant operations report?
EIA's Power Plant Operations Report provides data on utility-scale energy storage,including the monthly electricity consumption and gross electric generation of energy storage assets,which can be used to calculate round-trip efficiency.

How much storage capacity does a project have compared to 2023?
Projects with storage durations of 4 hours or more accounted for 15.4% of total installed capacity, a rise of about 3 percentage points compared to the end of 2023. Projects with durations of 2-4 hours accounted for 71.2%, while those with durations of less than 2 hours made up 13.4%.

How can energy storage meet peak demand?
Firm Capacity, Capacity Credit, and Capacity Value are important concepts for understanding the potential contribution of utility-scale energy storage for meeting peak demand. Firm Capacity (kW, MW): The amount of installed capacity that can be relied upon to meet demand during peak periods or other high-risk periods.

How big is energy storage in 2024?
By the end of 2024,the cumulative installed and operational capacity of new energy storage projects nationwide reached 73.76 GW/168 GWh,approximately 20 times that of the end of the 13th Five-Year Plan and more than 130% higher than at the end of 2023.

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