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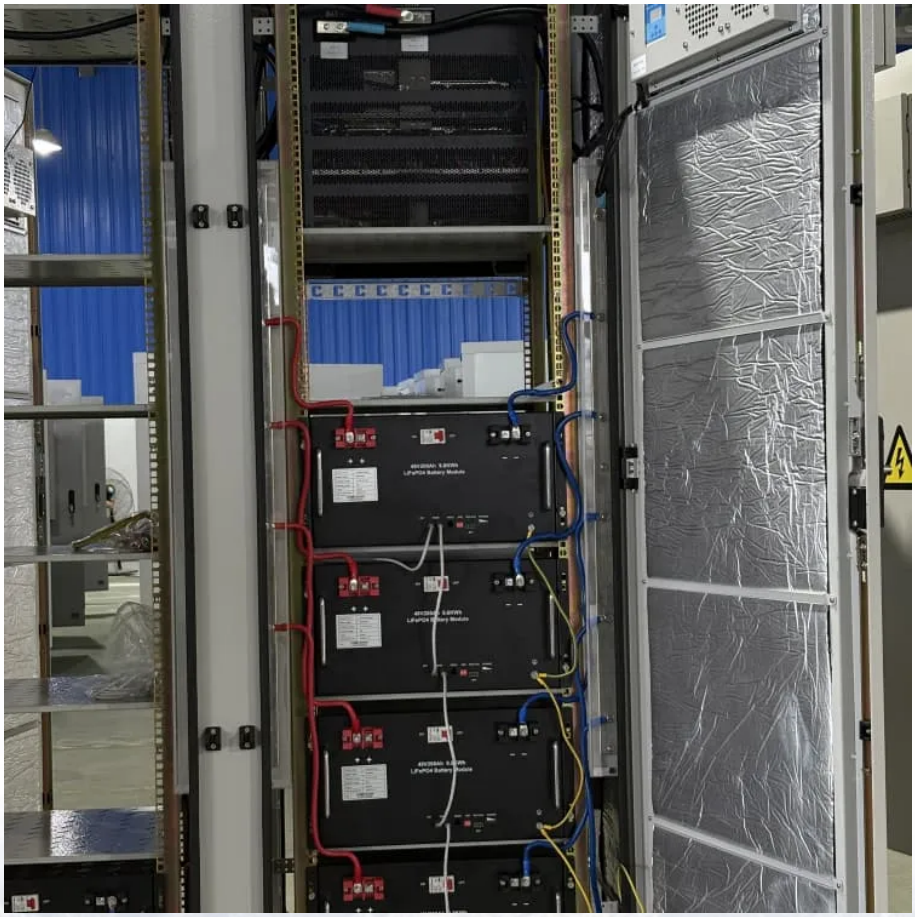
Investment amount of peak-shifting energy storage power station



Overview

What is the peak year for energy storage?

The peak year for the maximum newly added power capacity of energy storage differs under different scenarios (Fig. 7 (a)). Under the BAU, H-B-Ma, H-S-Ma, L-S-Ma, and L-S-Mi scenarios, the new power capacity in 2035 will be the largest, ranging from 47.2 GW to 73.6 GW.

Which energy storage capacity will grow the fastest?

Therefore, under the H-S-Ma scenario of a minimum continuous discharge time and maximum power transmission energy, China's optimal energy storage capacity will grow the fastest, with an average annual growth rate of 17.6%. The larger the power transmission capacity is, the smaller the cumulative power capacity of energy storage.

How will China's energy storage capacity grow in 2035?

Under cost preference, the average annual growth rate is as high as 8.3%, and the cumulative power capacity will reach 117.1 GW in 2035. Fig. 3. Optimized cumulative power capacity and investment of energy storage. In 2020, pumped storage accounted for 90.6% of China's energy storage power capacity, taking the absolute lead.

How is energy storage capacity planning determined?

The annual energy storage capacity planning is determined by synthesizing the energy output of all time slices. It is also a common and mature method in power planning models and is sufficient for the proposed model based on its application in similar models.

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