

Solar and wind power energy storage demand





Overview

Is China entering a new era of energy storage demand?

Mainland China accounts for most of the global energy storage demand, driven in the near term by regional requirements for new utility-scale wind and solar projects to include energy storage capacity. However, the Chinese market is entering an era of change.

Does solar-wind system address future electricity demands?

Jiang, H. et al. Globally interconnected solar-wind system addresses future electricity demands. *Nat. Commun.* 16, 4523 (2025). Peng, L., Mauzerall, D. L., Zhong, Y. D. & He, G. Heterogeneous effects of battery storage deployment strategies on decarbonization of provincial power systems in China. *Nat. Commun.* 14, 4858 (2023).

What is a wind and solar capacity factor?

The capacity factor, representing the output potential of wind and solar energy, is defined as the ratio of actual output to the rated nameplate capacity. We estimate hourly wind and solar capacity factors following our previous methods 1, 47.

Why is energy storage important?

And more. The global energy storage market had a record-breaking 2024 and continues to see significant future growth and technological advancement. As countries across the globe seek to meet their energy transition goals, energy storage is critical to ensuring reliable and stable regional power markets.



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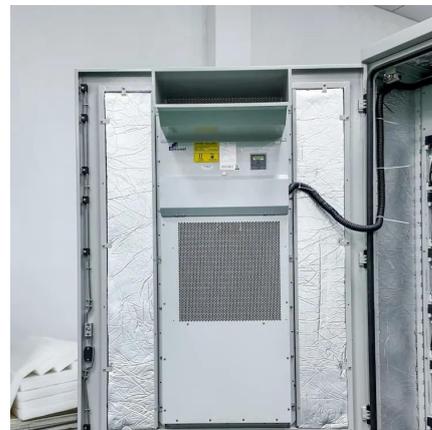
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[Wood Mackenzie](#)

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