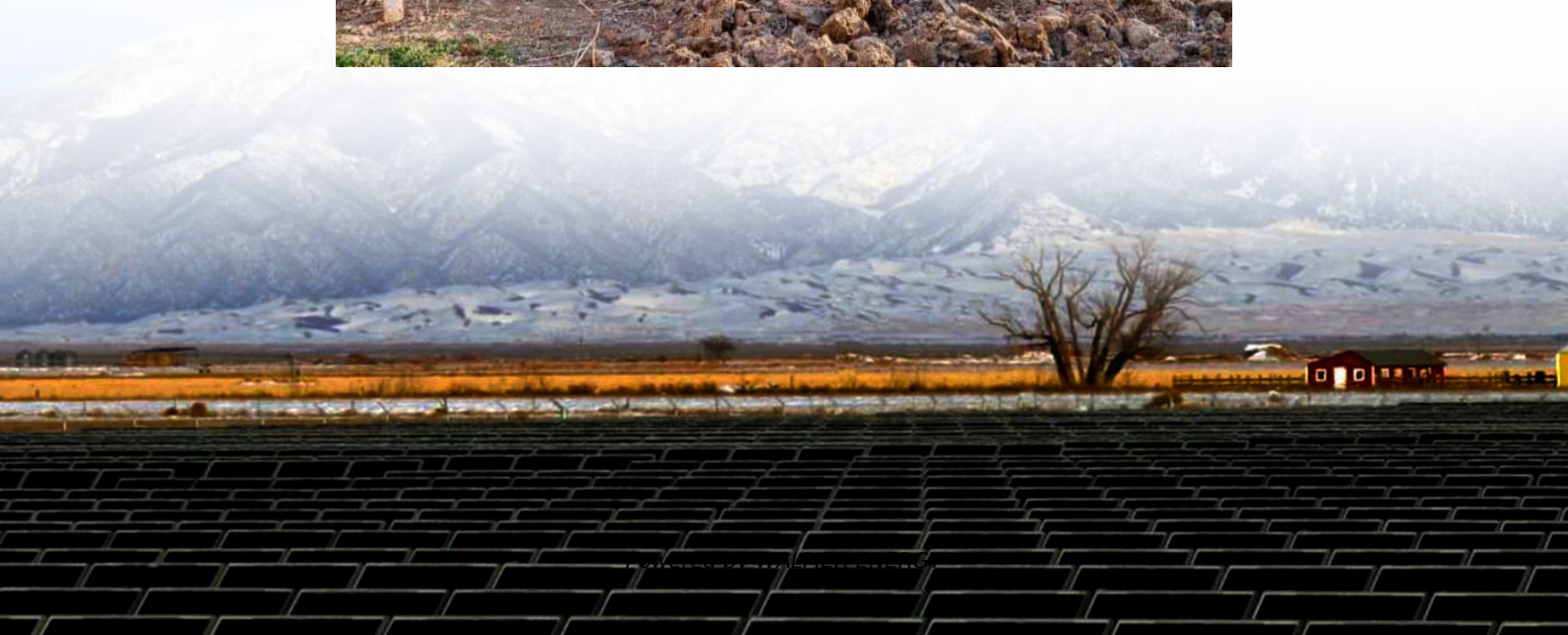


Low utilization rate of new energy storage





Overview

Does a shared energy storage system reduce the cost of energy storage?

The results show that the construction of a shared energy storage system in multi-microgrids has significantly reduced the cost and configuration capacity and rated power of individual energy storage systems in each microgrid.

Does energy storage reduce the rate of abandoned wind and solar power?

Therefore, to give full play to the role of energy storage system in consuming new energy and minimizing the rate of abandoned wind and solar power, this paper introduces a penalty cost for abandoned wind and solar power, and sets constraints for the maximum rate of abandoned wind and solar power as $1/3$.

Why do we need advanced energy storage?

To reduce reliance on fossil fuels and promote green energy transformation, developing new energy sources is essential for a clean transition in power systems. The variability of new energy requires high flexibility in power stations, making advanced energy storage a critical infrastructure and support technology.

Does a multi-microgrid shared energy storage system use wind and solar power?

The wind and solar power utilization rate of the multi-microgrid shared energy storage system reached 96.53%, which is significantly higher than the overall wind and solar power utilization rate of individual microgrids configuring energy storage systems.



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