

# **Diversified battery energy storage**





## Overview

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What is a battery energy storage system?

Battery Energy Storage Systems (BESS) store surplus electricity and deliver it within seconds, converting variable output into dependable capacity, balancing supply and demand, cutting peak costs, and strengthening resilience during extreme weather and outages. Two forces make BESS indispensable today.

What is battery energy storage system (BESS)?

The sharp and continuous deployment of intermittent Renewable Energy Sources (RES) and especially of Photovoltaics (PVs) poses serious challenges on modern power systems. Battery Energy Storage Systems (BESS) are seen as a promising technology to tackle the arising technical bottlenecks, gathering significant attention in recent years.

What are energy storage systems?

Energy-storage systems designed to store and release energy over extended periods, typically more than ten hours, to balance supply and demand in power systems. Reduction of energy demand during peak times; battery energy-storage systems can be used to provide energy during peak demand periods.

Are lithium-ion batteries a viable alternative energy storage system?

Lithium-ion batteries (LIBs) are still the predominant ESS used for these applications; however, they suffer from issues related to scarce and harmful resources, safety, and socio-economic impacts. This underscores the need for alternative energy storage systems beyond LIBs.



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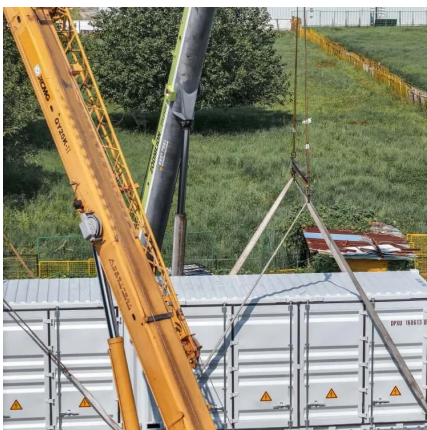
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