

# The benefits of large-scale energy storage for peak electricity consumption





## Overview

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Why are large-scale energy storage technologies important?

Learn more. The rapid evolution of renewable energy sources and the increasing demand for sustainable power systems have necessitated the development of efficient and reliable large-scale energy storage technologies.

Why do we need a large-scale electricity storage system?

To maintain a stable supply of electricity to the electrical grid, large-scale electricity storage systems that operate together with these renewable sources are needed, because both solar and wind power generation are inherently intermittent. Electricity demand varies considerably throughout a day or year.

What's new in large-scale energy storage?

This special issue is dedicated to the latest research and developments in the field of large-scale energy storage, focusing on innovative technologies, performance optimisation, safety enhancements, and predictive maintenance strategies that are crucial for the advancement of power systems.

Why is energy storage important?

For instance, when the clouds suddenly appear or the wind stops blowing then the energy production from photovoltaics and wind turbines will be decreased dramatically. Thus, energy storage can allow energy to be stored during high renewable generation or low demand periods, and to be used during low renewable production or high demand periods .



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