

# Multifunctional mobile energy storage power supply field





## Overview

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The imperative to address traditional energy crises and environmental concerns has accelerated the need for energy structure transformation. However, the variable nature of renewable energy poses challenges.

What is mobile energy storage system (MESS)?

Abstract: In modern power grids, mobile energy storage system (MESS) is essential for meeting the growing demand for electric vehicle (EV) charging infrastructure and maintaining reliable power supply during grid failures.

What is a mobile energy storage system?

A mobile energy storage system is composed of a mobile vehicle, battery system and power conversion system. Relying on its spatial-temporal flexibility, it can be moved to different charging stations to exchange energy with the power system.

How do different resource types affect mobile energy storage systems?

When different resource types are applied, the routing and scheduling of mobile energy storage systems change. (2) The scheduling strategies of various flexible resources and repair teams can reduce the voltage offset of power supply buses under to minimize load curtailment of the power distribution system.

Can mobile energy storage systems improve resilience of distribution systems?

According to the motivation in Section 1.1, the mobile energy storage system as an important flexible resource, cooperates with distributed generations, interconnection lines, reactive compensation equipment and repair teams to optimize dispatching to improve the resilience of distribution systems in this paper.



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