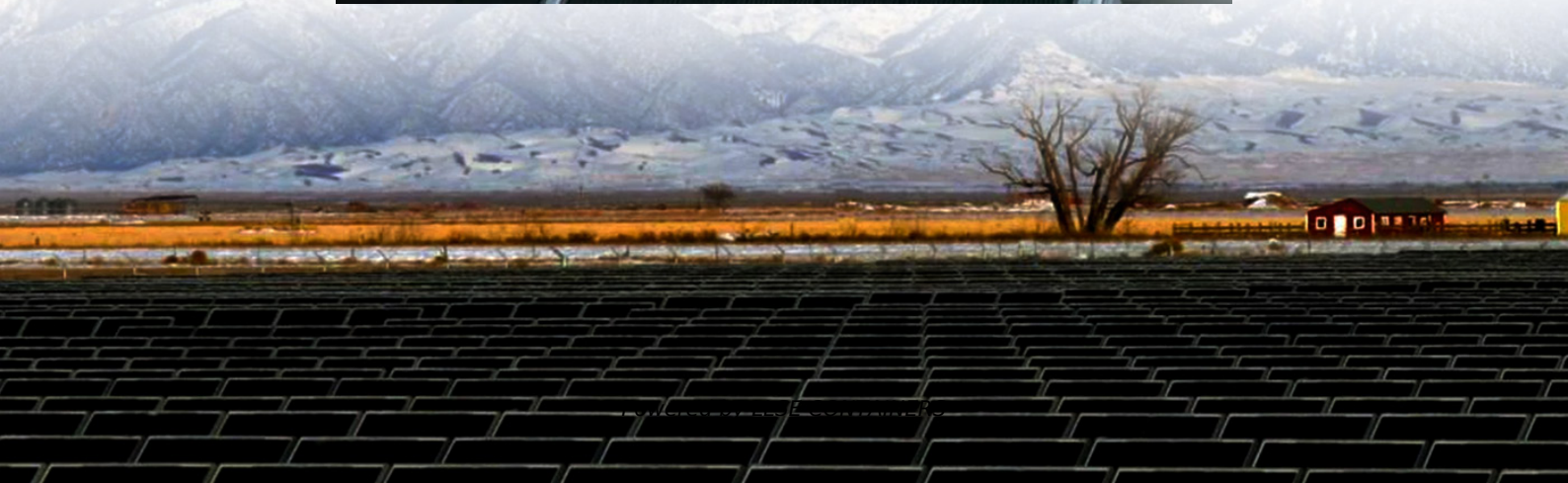
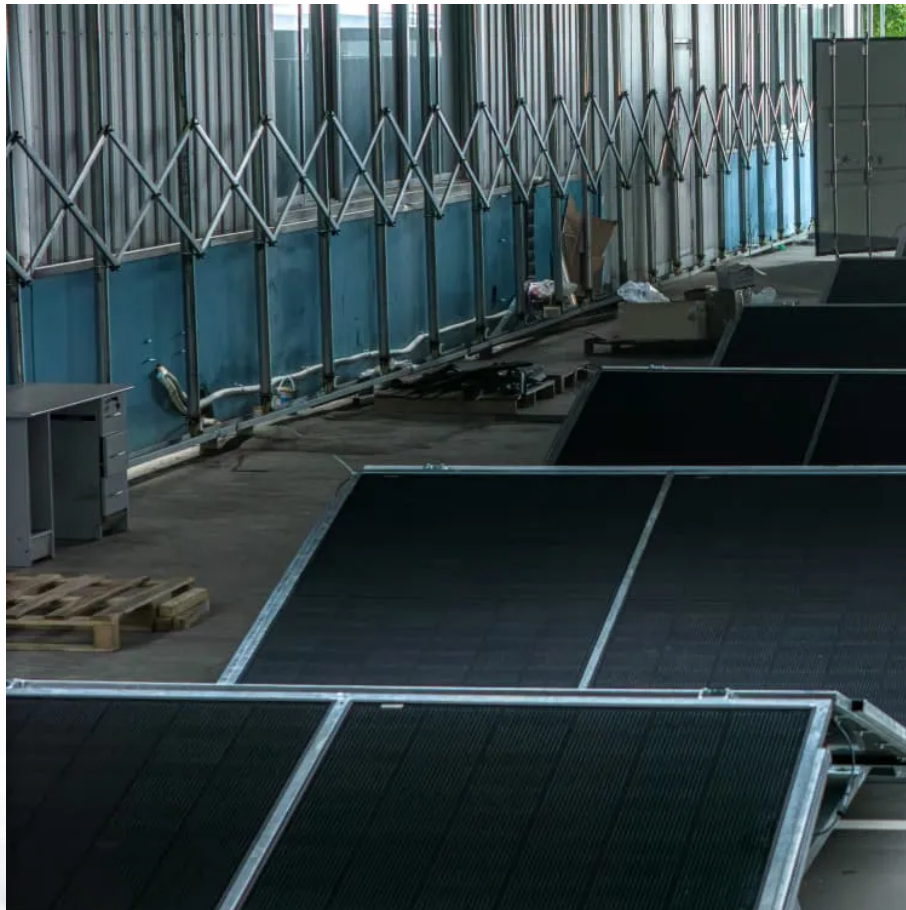


# **Wind-resistant mobile energy storage container for subway stations**





## Overview

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With the rapid development of urban rail transit, the safety maintenance of subway tunnels has attracted attention in various countries. Tunnel safety monitoring systems are used to ensure the safety.

Can a subway tunnel convert wind energy into electrical energy?

The system designed in this paper can convert the wind energy of the subway tunnel into electrical energy to achieve energy storage and application. This chapter analyzes three aspects: electromagnetic power generation analysis, piezoelectric power generation analysis, and simulation analysis. 3.1. Electromagnetic power analysis.

How does wind energy harvesting work in subway tunnels?

The wind speed in subway tunnels varies widely. In order to improve energy harvesting at different wind speeds, the self-powered system generates electricity through two modules: an electromagnetic wind energy collection module and a piezoelectric wind energy collection module.

How can a mobile energy storage system help a construction site?

Integrate solar, storage, and charging stations to provide more green and low-carbon energy. On the construction site, there is no grid power, and the mobile energy storage is used for power supply. During a power outage, stored electricity can be used to continue operations without interruptions.

What is a mobile energy storage system?

On the construction site, there is no grid power, and the mobile energy storage is used for power supply. During a power outage, stored electricity can be used to continue operations without interruptions. Maximum safety utilizing the safe type of LFP battery (LiFePO<sub>4</sub>) combined with an intelligent 3-level battery management system (BMS);



## Wind-resistant mobile energy storage container for subway stations

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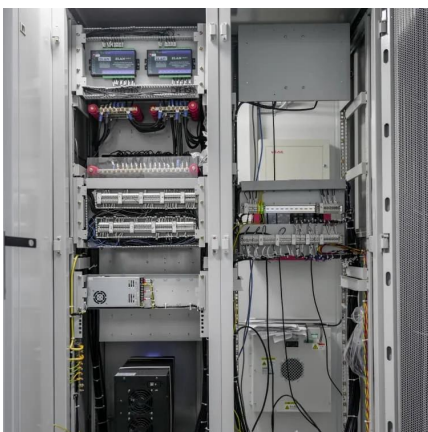
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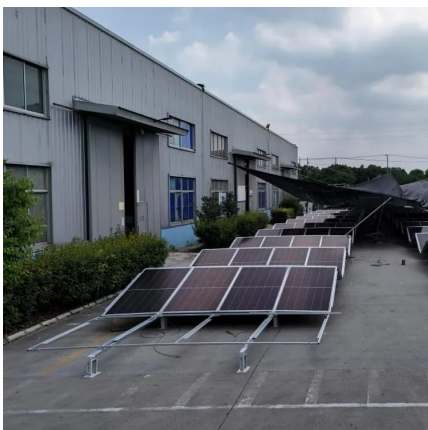


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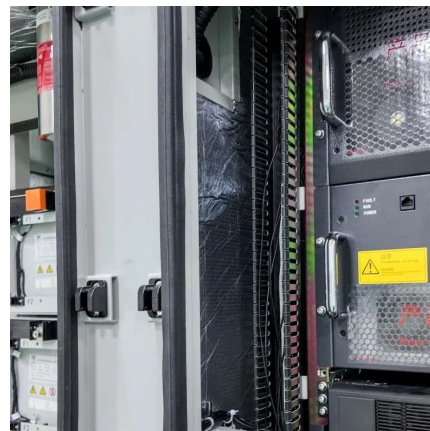


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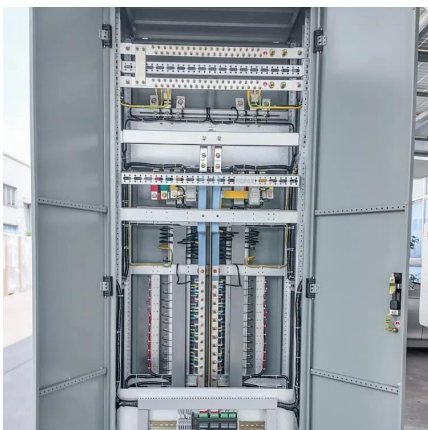


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