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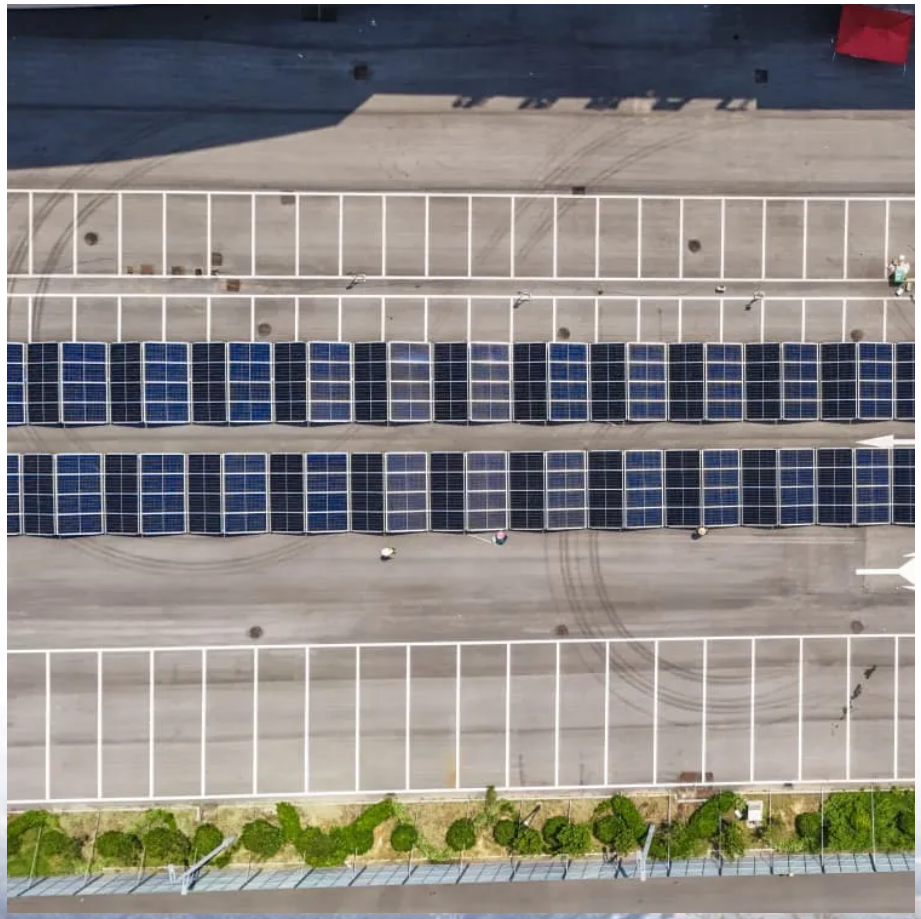
Large-capacity photovoltaic energy storage containers for train stations available for online purchase



Overview

Can photovoltaic power high-speed bullet trains?

Application of the existing infrastructures of railway stations and available land along rail lines for photovoltaic (PV) electricity generation has the potential to power high-speed bullet trains with renewable energy and supply surplus electricity to surrounding users.

Can a railway PV system supply electricity to a bullet train?

Same as the situation in Jiangsu, the railway PV system in Shandong can supply electricity to bullet trains during the daytime; after 6 p.m., the railway system needs to import electricity either from storage systems or the utility power grid. Fig. 8.

Are photovoltaics a good option for the railway energy supply chain?

Greening of the railway energy supply chain is an irreversible trend, and photovoltaics (PVs) provide the most suitable type of renewable energy to integrate with railways. The integration of variable and uncertain PV power generation with the dynamic loads on a railway increases the flexibility needed to maintain load-generation balance.

How many MWh does a railway PV system generate?

For railway PV systems, the total generation on the day was 12,051 MWh, which is approximately 24 times higher than the consumption. The PV system provided power to the railway system from 5 a.m. to 7 p.m. The railway PV systems were able to cover BS-HSR's electricity demand before 6 p.m.

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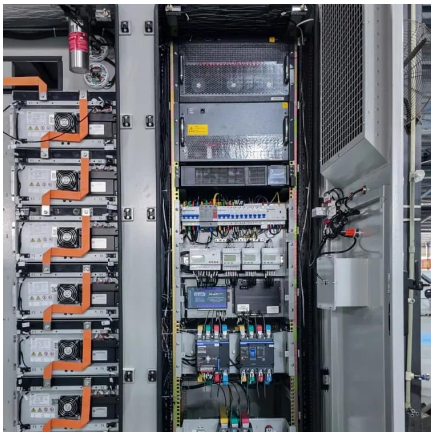

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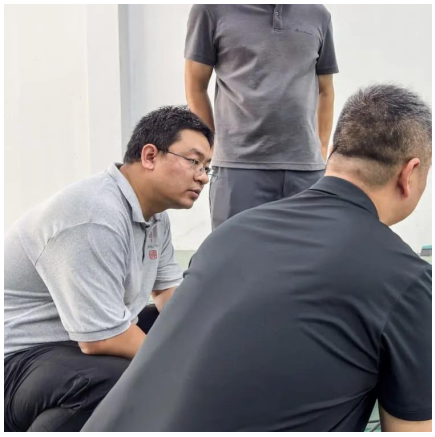

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