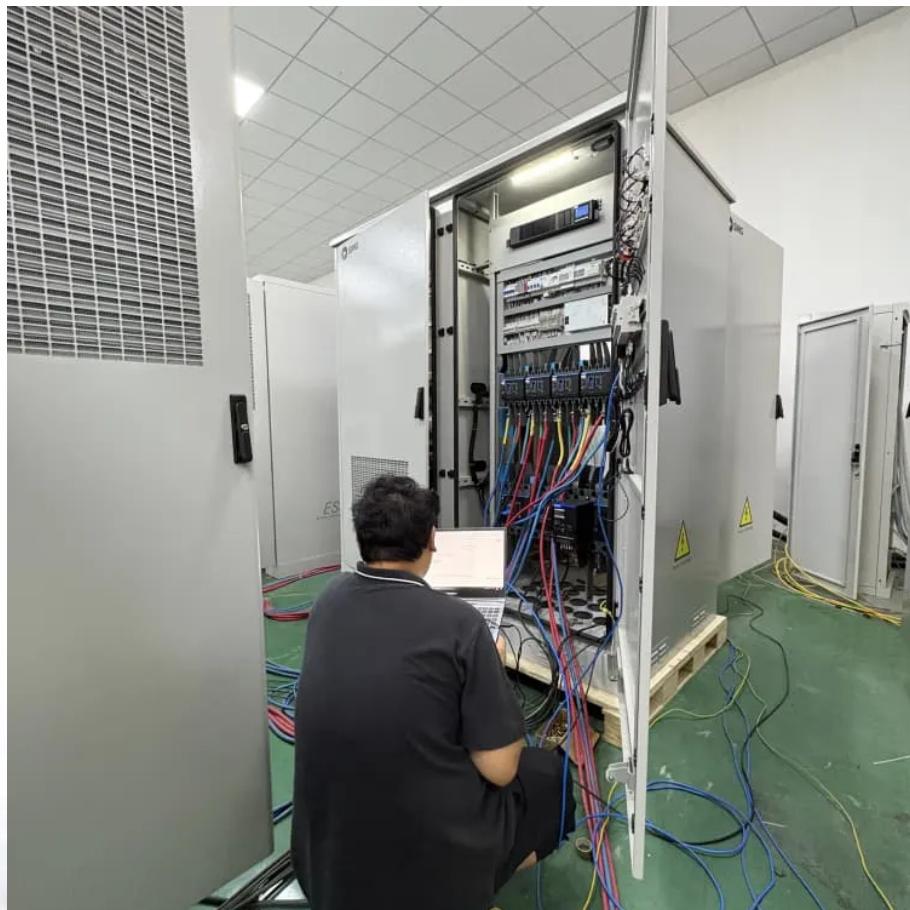


Trading Conditions for Two-Way Charging of Mobile Energy Storage Containers





Overview

Can stationary and mobile storage reduce energy costs?

By integrating stationary and mobile storage systems into the energy infrastructure of factories, the potential for reducing energy costs and increasing sustainability is massively increased. As different storage technologies have their own unique advantages and disadvantages, the former of each can be leveraged by intelligent operating strategies.

Can unidirectional and bidirectional charging be integrated into a hybrid energy storage system?

In the case of bidirectional charging, EVs can even function as mobile, flexible storage systems that can be integrated into the grid. This paper introduces a novel testing environment that integrates unidirectional and bidirectional charging infrastructures into an existing hybrid energy storage system.

What data can be collected from a charging system?

With this setup, not only can charging-related data be collected (e.g., cell and battery voltages, current, SoC, and state of health) but also driving data (e.g., speed, acceleration, steering angle, energy consumption, and power).

Can a stationary hybrid storage system provide unidirectional and bidirectional charging infrastructures?

This work presents a combination of a stationary hybrid storage system with unidirectional and bidirectional charging infrastructures for electric vehicles.



Trading Conditions for Two-Way Charging of Mobile Energy Storage

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