

Bidirectional charging of mobile energy storage containers for cement plants





Overview

Can bidirectional electric vehicles be used as mobile battery storage?

Bidirectional electric vehicles (EV) employed as mobile battery storage can add resilience benefits and demand-response capabilities to a site's building infrastructure.

How stable is a rechargeable cement-based battery?

Stability in Discharge Capacity, Efficiency, and Energy Density: Our rechargeable cement-based battery showcased stability in discharge capacity, efficiency, and energy density, surpassing existing literature on cement batteries and achieving a record-breaking maximum energy density of 7.6 Wh/m².

Can bidirectional EVs be used as mobile storage?

In contrast to stationary storage and generation which must stay at a selected site, bidirectional EVs employed as mobile storage can be mobilized to a site prior to planned outages or arrive shortly after an unexpected power outage to supplement local generation or serve as an emergency reserve.

Why is energy density important in rechargeable cement-based batteries?

The evaluation of discharge energy and energy density in rechargeable cement-based batteries is crucial for assessing their overall performance and practical applicability. Batteries with optimal discharge characteristics and high energy density are more likely to meet the diverse demands of technology and energy storage needs.



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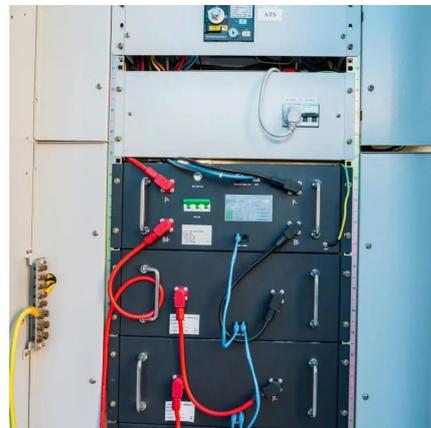


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