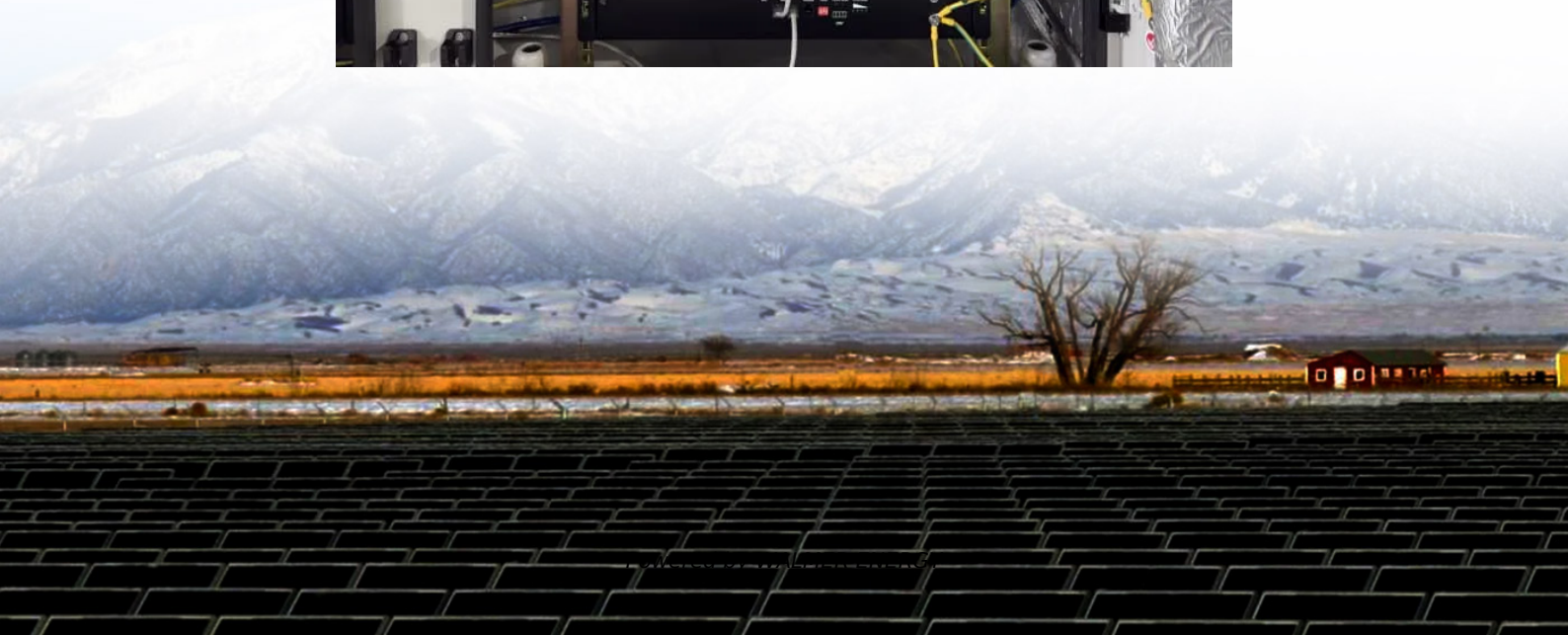


Jordan Off-Grid Solar Container Bidirectional Charging





Overview

What is solar-powered bidirectional OBC based on bhgc?

The solar-powered bidirectional OBC based on the coupled-inductor high gain converter with grid-to-vehicle (G2 V) and vehicle-to-grid (V2 G) operations is shown in Fig. 1 and schematic diagram of LEV charging scheme with BHGC is depicted in Fig. 2.

What is a DC bidirectional EV charger?

On the EV charging side, the DC bidirectional charger will be available in two sizes: a smaller 12.5kW unit or a large 25kW unit designed to be used with a 3-phase AC supply. However, the true innovation lies in the DC power bus, which enables direct DC charging from solar.

What is a bidirectional charger?

A bidirectional charger enables Vehicle-to-Grid (V2G) functionality, allowing EVs to feed energy back into the grid during times of high electricity demand, such as the peak evening period. This concept is a form of decentralised energy generation that can transform the operation of our power grids. Learn more about vehicle-to-grid (V2G) [here](#).

Can BLDC drive be used for a solar-powered on-board charging system?

The designed system also presents a soft-starting of BLDC drive for propulsion mode of operation. This work proposes an efficient configuration for a solar-powered on-board charging system utilizing a coupled inductor high-gain converter with Grid-to-Vehicle (G2 V) and Vehicle-to-Grid (V2 G) operations.



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SOLAR BASED BI-DIRECTIONAL V2H CHARGING SYSTEM

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EV Charging Jordan: Solar Homes, Costs, e TOU Impact

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