Title: Microgrid power flow bidirectionality
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The purpose of this project was to replace the inverter/rectifier devices previously used to provide a bidirectional power flow. Tests conducted with the new converter showed a significant ...

Bidirectional flow is a core component of this transformation, enabling both enhanced flexibility and efficiency. In this article, we will explore what bidirectional flow means, why it is ...

In this paper, the importance of the matrix converter stabilization in bidirectional power flow control is investigated. A stabilization technique for matrix converters based on a combination of the ...

This paper presents a novel power flow control strategy for residential DC Microgrids using a dynamic bidirectional converter with an energy management scheme, implemented on Field ...

The obtained results confirm the effectiveness and feasibility of the proposed approach and the capability of the overall power flow algorithm in satisfying the zero-net power transfer target.

In this paper, a review of power flow and short-circuit analysis algorithms for MG systems under two different modes of operation, grid-connected and islanded, is presented.

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This paper focuses on a bidirectional hybrid dc-dc converter suitable as an interface between two dc voltage buses in various applications including microgrids.

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