Microgrid load current sharing control method

To overcome this issue, an enhanced power sharing control method is proposed in this paper to address load sharing in parallel-connected DG units based DC microgrids, considering ...

As the proposed method does not rely on communication links, it is applicable to widespread microgrids. Simulation results confirm that the proposed method benefits from proper ...

Abstract: For DC microgrids (MGs), real-time adjustment of current sharing ratios and secure voltage restoration are paramount for optimizing load allocation and enhancing dynamic performance.

In this paper, an autonomous current sharing control strategy based on active frequency injection and line impedance compensa-tion is proposed. Firstly, an active frequency injection method is used for ...

Results show that the method exhibits good stability and robustness under load changes and system structure changes, significantly reducing the number of communications compared to ...

To address the inherent conflict between power sharing and voltage regulation introduced by traditional droop control, a distributed secondary control strategy is proposed. This strategy ...

This research work presents an adaptive droop control technique that aims to minimize circulating current and load- sharing error in low-voltage DC microgrids.

This paper proposes a modified droop control algorithm to address this issue. This method modifies the virtual resistor in a way that ensures power sharing aligns with each converter-rated capacity. The ...

The algorithm aims to enhance both bus voltage regulation and load sharing performance within DCMGs.

This paper provides a comprehensive analysis of active and passive load sharing strategies, highlighting their advantages and disadvantages.

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