Microgrid load current sharing control

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 ...

This study presents an enhanced control scheme based on the Luenberger observer technique to achieve accurate load power sharing in an islanded DC microgrid, accounting for the ...

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

Motivated by the increasing interest in DC microgrids, we study the distributed secondary control problem of DC microgrids which aims to simultaneously guarantee load current sharing and ...

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

Conventional droop control methods, which employ a virtual resistor to address this issue, have limitations in achieving good performance across the entire converter operating range. This paper ...

It is well known that accurate current sharing and voltage regulation are both important, yet conflicting control objectives in multi-bus DC microgrids. In this paper a distributed control ...

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 compensation is proposed. Firstly, an active frequency injection method ...

Microgrid Controls NLR develops and evaluates microgrid controls at multiple time scales. Our researchers evaluate in-house-developed controls and partner-developed microgrid ...

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