Multi-bus DC microgrid

Different from the existing literature, this paper focuses on distributed accurate proportional current sharing with the minimization of voltage regulation deviations in multi-bus DC microgrids.

To address this, multi-criteria decision analysis (MCDA) provides a systematic approach. In this study, six distinct DC microgrid configurations are defined as potential alternatives: unipolar,...

This paper proposed a DRNN-based method for the real-time optimal control of multi-bus DC microgrids. The DRNN coordinates multiple coupled variables in a distributed manner, with ...

As an extension of single-bus DC microgrid, multi-bus DC microgrid has become a popular research topic due to its better availability and reliability and more reconfiguration options.

By applying the concept of the block model, the multi-bus DC microgrid can be regarded as a multi-agent system. And one agent includes one single-bus microgrid, one conversion device, one RLC ...

Abstract: It is well known that accurate voltage regulation and current sharing are conflicting control objectives for DC microgrids. By taking electrical network into consideration, this paper analyzes the ...

A multi-bus DC microgrid architecture designed for efficient energy distribution and management shown in Fig. 3. It features multiple interconnected DC buses, each integrating specific ...

In this study, we used the FLUXCOM net ecosystem carbon exchange (NEE, with a negative value indicating net carbon uptake by the land) data based on the fifth generation European ...

Abstract: In multi-bus DC microgrids, where each bus connects a cluster of distributed generators (DGs), the control objective is to ensure voltage regulation and current sharing among ...

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