

Title: Microgrid virtual impedance simulation

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Abstract--AC Microgrids, in presence of highly non-linear loads, require a tighter regulation of line voltage to maintain power quality. This article proposes an outer virtual impedance loop to shape the ...

In this paper, based on the above analysis, the fuzzy adaptive virtual impedance controller is proposed for reactive power sharing of microgrid and circulating current between inverters caused ...

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This paper proposes an adaptive virtual impedance control strategy that integrates a fuzzy PID controller with the Improved Whale Optimization Algorithm (IWOA).

The proposed approach integrates the deviation between the ratio of reactive power to output voltage and its reference value to generate an ...

To overcome the inaccurate power sharing and circulating current issues caused by the mismatched feeder impedance, this paper proposed an adaptive virtual complex impedance-based ...

The reliability of new energy microgrid plays a very important role in the normal operation of power grid, so it is extremely urgent to improve the ...

In a practical islanded microgrid system, the mismatched line impedance causes serious problems, such as inaccurate power sharing and circulating current. In order to overcome these ...

In this paper, a self-regulated virtual impedance (SRVI) control of virtual synchronous generator (VSG) is proposed. In the modern power system, large penetration of inverter-interfaced ...

In this article, a method is proposed to increase the accuracy of reactive power-sharing for parallel-connected

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