# Reactive Power Compensation in Microgrids



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This paper reviews key reactive power compensation technologies and control strategies for microgrids, including static and dynamic devices (e.g., SVC, SVG) and coordinated control ...

We propose a distributed algorithm for the reactive power compensation problem with a fully connected communication network, to solve the optimal reactive power compensation problem in microgrids.

Reactive power compensation is becoming a challenging task to sustain an acceptable degree of power quality in microgrids due to tightly coupled generation and distribution. Therefore, current research is ...

In this paper, a centralized reactive power compensation (CRPC) system is proposed for microgrids which aims at minimizing the total cost of reactive power compensation including power loss cost, ...

The absence of reactive power support for these small-scale PV plants increases total microgrid losses and voltage-instability threats. Reactive power compensations (RPCs) should be ...

This work, relative with previous research, focuses on reactive power planning for microgrids with unconventional reactive power dynamics, which results in microgrids operating in an ...

Numerical tests on an industrial 47-bus microgrid and the residential IEEE 123-bus feeder corroborate the reactive power management efficiency of the novel stochastic scheme over its deterministic ...

With a fully connected communication network, we propose a distributed algorithm for the reactive power optimization in a ring microgrid. Finally, we have verified the effectiveness of the proposed algorithm ...