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Title: Microgrid dual-layer capacity configuration optimization

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In the context of the "dual carbon" strategy, this paper addresses the optimization of wind-solar-energy storage capacity configuration in microgrids by proposing a dual-layer optimization model.

This article discusses the optimization of microgrid and energy storage capacity configuration in a multi-microgrid system with a shared energy storage service provider.

Therefore, the proposed double-layer optimization method of capacity configuration of microgrid with wind-solar-hybrid energy storage based on IGWO could effectively improve the ...

In view of the significant impact of renewable energy on the stability and economy of the power system, a hybrid energy storage system (HESS) is added to solve the problem of peak load balancing. A two ...

In Wu et al. (2021a), a two-layer optimal configuration model of combined cooling, heating, and power MMG system considering the SESS is established to verify the economic ...

Subsequently, a two-layer model for capacity allocation and operation co-optimization of a multi-microgrid system incorporating biogas generation was established.

Through the meticulous optimization of installation capacity, grid connection points, and system types of DREGs and ESSs, a comprehensive ...

To effectively reduce the cost of comprehensive energy system capacity allocation, a double-layer optimal allocation algorithm considering reliability constraints was proposed.

Microgrids will be an essential component of the new-type power system. This study investigates the capacity configuration optimization of park-level wind-solar-storage microgrids, ...

To address the collaborative optimization challenge in multi-microgrid systems with significant renewable energy integration, this study presents a dual-layer optimization model ...

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