Daily optimization and dispatching of microgrids

In order to maximize the utilization of renewable energy, enhance its utilization efficiency, and reduce the carbon emission of power supply, this paper first proposes a real-time collaborative ...

Additionally, we develop a two-stage stochastic programming extension of an existing microgrid design and dispatch optimization model to obtain uncertainty-informed and climate-resilient ...

Simulation shows that the day-ahead optimal dispatching results based on ISOS are better than that based on SOS and the real-time optimal dispatching based on RTDAS can quickly ...

Abstract: This paper presents an improved deep reinforcement learning (DRL) algorithm for solving the optimal dispatch of microgrids under uncertaintes.

To address these challenges, this paper proposes an optimized scheduling strategy for microgrids based on hybrid, multi-type data-driven methods. First, a multi-stage model is developed ...

This study proposes an advanced day-ahead economic dispatch framework for wind-integrated microgrids, utilizing coordinated energy storage and a hybrid DR strategy.

For the dispatch of practical microgrids, power loss from energy conversion devices should be considered to improve the efficiency. This paper presents a two-stage dispatch (TSD) model based...

Therefore, this paper focuses on the economic and environmental issues of different types of energy scheduling in microgrids, integrates the results of PV power generation prediction, ...

Typical daily illumination and load data of two neighboring office and commercial buildings in a certain area are selected to build a bi-level robust optimization model of a multi ...

The simulated and physical microgrid characteristics are described and the hourly dispatch results for generation, storage and load devices are presented, standing out as a reliable ...

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