Objective function of microgrid optimization

Overview

Microgrid optimization scheduling, as a crucial part of smart grid optimization, plays a significant role in reducing energy consumption and environmental pollution. These changes include the rise of distributed generation (DG), microgrids, energy storage, and demand-side management. This research develops an optimal scheduling framework for a distribution microgrid, incorporating various resources, including photovoltaic (PV), wind turbines (WT). This paper introduces an unique adaptive multi-objective optimization approach that employs weighted optimiza-tion techniques for real-time microgrid systems. The development goals of microgrids not only aim to meet the basic demands of electricity supply but also to enhance economic. rves as a promising solution to in-tegrate and manage distributed renewable energy resources. In this paper, we establish a stochastic multi-objective sizing optimization (SMOSO) model for microgrid planning which fully captures the battery degradation characteristics and the total carbon.

Objective function of microgrid optimization

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Improved

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