

عنوان مقاله:

Tabu Search Method for Reliability-Oriented Microgrid Design

محل انتشار:

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خلاصه مقاله:

A microgrid (MG) usually consists of a set of distributed generation, energy storage systems and loads, which can be exploited as island network or connected to network. The microgrid has several benefits for the consumers and power generation companies. From the perspective of consumers, microgrid has provided functionality of combined heat and power, increase reliability, reduce emissions, improve power quality and reduce the cost of energy consumption. Also, from the perspective of power companies, microgrids will reduce consumer demand and thus reduce the need of development of transmission facilities. Moreover, the peak factor will be eliminated. In order to draw the best performance from these hybrid systems, a proper design is essential. The purpose of this research is to present a detailed report to designing microgrids to take in to account system reliability-aspects. The loads are assumed to be different distributed generation (DG) technologies are considered. The well-known PG&E 69-bus distribution system is selected as a case study. Also, results sensitivity to each parameter is investigated.

کلمات کلیدی:

Graph Partitioning, Microgrid, Reliability, Tabu Search

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