

电力系统

配电网建设项目优化模型及求解

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摘要: 合理制定配电网建设项目计划有利于提高配电网建设的经济性,为此在考虑配电网建设项目的种类、多种约束条件以及气候对工期的影响的基础上,以配电网风险最低为目标建立了配电网建设项目优化模型,并结合复合形算法与遗传算法进行模型求解,保证了算法的收敛性和全局搜索能力。算例结果验证了优化模型及求解算法的有效性,优化结果可为配电网规划提供参考。

关键词: 最低风险 配电网建设 复合形算法 遗传算法

Optimization Model of Distribution Network Construction Project and Its Solution

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Abstract: A reasonable distribution network construction project planning is favorable to improve the economy of distribution network construction. For this reason, on the basis of considering the influences of kinds of distribution network project, various constraint conditions and climate on time limit for the project, taking the minimum risk of distribution network as the objective function an optimization model of distribution network construction project is built and solved by combining complex algorithm with genetic algorithm to ensure the convergence and global search ability of algorithms. The effectiveness of the proposed optimization model and solving algorithm is verified by the results of calculation example.

Keywords: minimum risk distribution network construction complex algorithm genetic algorithm

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