

## 论文

### 智能电网建设中分布式电源的规划

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#### 摘要:

研究了智能电网建设中分布式电源的规划问题, 在分布式电源单个容量、个数和位置不确定的情况下, 建立了多目标优化模型, 并将多目标函数归一化, 采用改进自适应遗传算法优化分布式电源的位置和容量, 得到分布式电源接入后的最优规划方案。通过算例分析, 验证了该方法的正确性和有效性。

#### 关键词:

### Planning of Distributed Generation in Construction of Smart Grid

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#### Abstract:

The planning of distributed generation (DG) in the construction of smart grid is researched. Under the condition that the capacity of each several DG, number of DGs and their positions are uncertain, a multi-objective optimization model is built and the multi-objective function is normalized; using improved adaptive genetic algorithm the capacities and positions of DGs are optimized to attain the optimal planning scheme while the DGs are connected with the grid. Results of calculation examples show that the proposed method is correct and effective.

#### Keywords:

收稿日期 2009-09-16 修回日期 网络版发布日期 2010-04-14

DOI:

#### 基金项目:

教育部博士点基金: 含大型风电场的电力系统的稳定性分析及其协调控制研究; 国家科技攻关计划: 大电网规划理论及技术研究

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