

电力市场

基于四分法的南方电网经济调度模拟分析

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摘要:

电网经济调度的优化运行结果可以从经济效益角度来直接衡量, 为此提出了电网经济调度的分析方法——四分法, 通过计算实际购售电毛利相对于计划购售电毛利的增量(称为超计划效益), 将此部分效益视为调度机构通过优化电网运行取得的经济调度效益, 并且将其分解为多购多售、降低损耗、优化购电和优化售电4个方面, 计算出这4个方面的经济调度措施对全网经济效益提高所作出的贡献, 用于指导电网经济运行工作。最后, 通过南方电网公司的模拟分析算例验证了四分法的有效性。

关键词:

Simulation of Economic Dispatching in China Southern Power Grid Based on Quartation Method

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Abstract:

The optimal operation results of power network economic dispatching can be measured by the obtained economic benefit. In this paper, a method to analyze power network economic dispatching, namely the quartation method, is proposed. In this method, firstly the increment of practical gross profit from electric power purchase and sale to that from planned electric power purchase and sale, that is known as the beyond-plan effect, is calculated; then this increment regarding as the economic dispatching effect resulting from optimizing power network operation by economic dispatching is divided into for aspects, i.e., the more purchase and more sale of electric power, reducing loss, optimized purchase and optimized sale; and then as the results of economic dispatching measures in these four aspects the contributions to the improvement in economic benefit of whole power network are calculated respectively to guide the economic operation of power network. Taking the economic dispatching of China Southern power grid for simulation example, the effectiveness of the proposed quartation method is verified.

Keywords:

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