

电力市场**节能减排调度环境下燃煤电厂发电成本分析**谢瑛¹, 谭忠富², 程晋¹, 胡庆辉², 王舒祥²

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摘要:

未来节能减排调度环境对发电企业提出了新的要求。燃煤发电企业需向交易中心申报自己的能源消耗和污染排放, 同时, 还要分析其能耗成本、环境成本以及其他成本, 据此确定其应该申报的发电价格。通过对燃煤电厂的动态成本分析, 确定了发电成本的组成要素, 建立了成本要素的分析和计算模型。通过实例计算, 得出了发电成本与机组负荷之间的关系, 这可以为燃煤电厂控制发电成本、耗煤、污染排放提供参考。

关键词:**Generation Cost Analysis of Coal-Fired Power Plant in Environment of Energy Saving and Emission Reduction Dispatching**XIE Ying¹, TAN Zhongfu², CHENG Jin¹, HU Qinghui², WANG Shuxiang²

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Abstract:

Energy saving and emission reduction make new requests for power generation enterprises. Coal-fired power generation enterprises must report their own energy consumption and pollutant emission to trading center, meanwhile the energy consumption cost, environmental cost and other cost of these enterprises should be analyzed and on this basis their electricity prices to be reported are decided. By means of analyzing dynamic cost of coal-fired power plant, the constitution elements of generating cost are determined and the analysis model and calculation model of cost elements are built. Through the calculation of actual cases, the relation between generating cost and unit loads, which is available for the reference of coal-fired power plants to control generating cost, coal consumption and pollutant emission, is obtained.

Keywords:

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参考文献:

- [1] 叶剑波. 节能调度对发电企业的影响及对策[J]. 中国电力企业管理, 2008(1): 58-59. Ye Jianbo. Research of power enterprises countermeasures in the context of energy-saving dispatching[J]. China Power Enterprise Management, 2008(1): 58-59(in Chinese).
- [2] 尚金成. 兼顾市场机制的主要节能发电调度模式比较研究[J]. 电网技术, 2008, 32(4): 78-85. Shang Jincheng. Comparative research on main energy-saving generation dispatching model considering market mechanism[J]. Power System Technology, 2008, 32(4): 78-85(in Chinese).
- [3] 张森林. 节能发电调度实用化措施框架体系[J]. 电网技术, 2008, 32(20): 81-85. Zhang Senlin. A framework system of practicable measures for energy-saving power generation dispatching[J]. Power System Technology, 2008, 32(4): 81-85(in Chinese).
- [4] 刘达, 牛东晓, 杨光. 电力市场中的电价影响因素[J]. 陕西电力, 2008(12): 9-12. Liu

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