电力市场

华中电网省间联络线输电能力的电力市场适应性研究

丁心海1, 王先甲1, 黄 涌2, 熊秀文2

1. 武汉大学 系统工程研究所,湖北省 武汉市 430072; 2. 华中电网有限公司 技术中心,湖北省 武汉市 430077

收稿日期 2007-3-1 修回日期 网络版发布日期 2008-1-8 接受日期

结合华中区域电力市场和华中电网的建设规划,在对电力市场环境下影响省间联络线交易容量的主要相关市场因素(如发电竞争模式及上网报价、交易模式及价格机制、输电费及线损率、发电计划及辅助服务等市场规则)进行合理简化和假设的基础上,提出了一种在电力市场竞争环境下确定省间交易容量的实用计算方法。采用该算法对华中电网2006年省间交易容量进行了模拟计算,校验分析了各省间联络线输电能力的市场适应性,所得到的结果具有一定的参考意义。

关键词 电力市场 输电规划 联络线 输电能力

分类号 TM715

Research on Adaptability of Transmission Capacity of Trans-Provincial Tie-Lines inside Central China Power Grid to Electricity Market

DING Xin-hai1, WANG Xian-jia1, HUANG Yong2, XIONG Xiu-wen2

1. System Engineering Research Institute, Wuhan University, Wuhan 430072, Hubei Province, China; 2. Technology Center, Central China Grid Company Limited, Wuhan 430077, Hubei Province, China

Abstract

Along with the establishment of uniform competitive platform for regional electricity market, the transmission capacity of trans-provincial tie-lines, which is decided on the basis of traditional planning method, i.e., power balance within each province and power regulation among provinces, will face with the adaptability problem, namely whether it can meet the demand of competitive transactions or not. Combining with the construction plan for Central China electricity market and Central China Power Grid, on the basis of reasonable simplification and presupposition of principal relevant factors that impact the transacted capacity of trans-provincial tie-lines in market environment, such as generation competition mode and bidding for transaction, transaction modes and pricing mechanism, transmission charges and line-loss rate, generation scheduling and auxiliary service, a practical calculation method to determine trans-provincial transacted capacity under market competition condition is proposed. By use of the proposed method the simulation calculation of trans-provincial transacted capacity of Central China Power Grid in the year of 2006 is performed, and the market adaptability of transmission capacity of trans-provincial tie-lines is checked and analyzed. The obtained results are available for reference.

Key words electricity market transmission planning tie-line transmission capacity

DOI:

通讯作者 丁心海 ccpgdxh@sina.com; dingxh@ccpg.com.cn

作者个人主

页 丁心海1; 王先甲1; 黄 涌2; 熊秀文2

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