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电力市场

计及网损的发电权交易报价修正方法

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摘要:

现行的发电权交易在竞价时不考虑网损的影响,仅依据双方报价进行交易,事后结算时再进行网损补偿。上述交易方法忽略了网损能提供正确经济信号、引导资源优化配置的作用,影响了交易的经济次序。提出一种计及网损的发电权交易报价修正方法。该方法在交易前考虑网损的影响,将原交易中的电量换为减去网损的电量,推导出计及网损的发电权交易报价,优化了交易次序。对IEEE14节点系统进行仿真分析,结果表明修正后的发电权报价可减小网损、增大交易收益,进一步实现了节能增效。

关键词:

A Method to Modify Quoted Price of Generation Right Tradeoff Considering Network Loss

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Key Lab of Power Electronics for Energy Conservation and Motor Drive of Hebei Province (Institute of Electrical Engineering, Yanshan University), Qinhuangdao 066004, Hebei Province, China Abstract:

During the bidding of current generation right tradeoff the influence of network loss is not taken into account, the tradeoff is carried out based on the bid of both sides, and the network loss is compensated after the tradeoff. Such a tradeoff mode neglects the action that network loss can offer correct economic signal and guide optimal allocation of resources, thus the economic order is affected. In this paper a method to modify the bid of generation right tradeoff in which the network loss is taken into account is proposed. Before the tradeoff, the proposed method takes the influence of network loss into account and the network loss-subtracted original electricity in the tradeoff is utilized, then the network loss-considered bid of generation right tradeoff is deduce, and the tradeoff order is optimized. Simulation results of IEEE 14-bus system show that the modified bid of generation right can reduce network loss and increase tradeoff benefit, and is favorable to energy conservation and increasing efficiency.

Keywords:

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