

电力市场

基于排放轨迹模型的电力行业CO2减排模式分析

陈启鑫¹,康重庆¹,葛俊²,夏清¹

1. 电力系统及发电设备控制和仿真国家重点实验室(清华大学电机系), 北京市 海淀区 100084; 2. 国家电网公司, 北京市 西城区 100031

摘要:

以CO2减排目标为强制约束是控制温室气体排放最直接、最有效的手段。在深入探讨我国电力行业的CO2减排场景的基础上, 提出了基于排放总额度约束的标准排放轨迹模型。根据该模型特征, 总结了我国电力行业潜在的几种CO2减排模式, 进一步分析了在不同模式下通过调控模型中的关键参数实现减排目标的控制手段。结合我国电力行业的实际情况, 运用标准排放轨迹模型量化地计算和比较了各种减排模式, 并对我国未来电力CO2的减排场景进行了适应性分析。研究表明, 排放轨迹模型可实现对CO2排放更有效、精确地控制, 具有广泛的应用前景。

关键词: 低碳电力 排放轨迹模型 CO2减排模式 碳减排路线图 适应性分析

Analysis on Reduction Mode of CO2 Emission in Power Sector Based on Emission Trajectory Model

CHEN Qi-xin¹, KANG Chong-qing¹, GE Jun², XIA Qing¹

1. State Key Lab of Control and Simulation of Power Systems and Generation Equipments(Dept. of Electrical Engineering, Tsinghua University), Haidian District, Beijing 100084, China; 2. State Grid Corporation of China, Xicheng District, Beijing 100031, China

Abstract:

Setting compulsive reduction targets is one of the most effective methods in restricting emissions of greenhouse gas. In this paper, the prospect of CO2 emission in China's power sector is assessed. A standard emission trajectory model based on total emission constraint is proposed, with which several typical potential CO2 emission reduction modes are presented by adjusting key control parameters of the model. Subsequently, the model is utilized for scenario analysis on China's power CO2 emission reduction. Adaptability of different scenarios are compared. The result of this paper could be helpful to set the roadmap of CO2 emission reduction in China's power sector.

Keywords: low carbon electricity emission trajectory model CO2 emission reduction mode roadmap of CO2 emission reduction adaptability analysis

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通讯作者: 陈启鑫

作者简介:

作者Email: cqx@mails.tsinghua.edu.cn

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