

<<电力市场的经济运行及其数学方法>>

图书基本信息

书名：<<电力市场的经济运行及其数学方法>>

13位ISBN编号：9787030328557

10位ISBN编号：7030328558

出版时间：2012-2

出版时间：科学出版社

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页数：229

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内容概要

本书以作者近十年来的研究成果为主线,介绍市场化运营环境下电力系统的经济运行相关问题及其最新的研究方法。

《电力市场的经济运行及其数学方法(英文版)》的内容包括四章:第一章电力市场运营以及最优化的新理论和方法,主要介绍电力市场化运营方式、数学上最优化问题的新理论与方法,该章是后面各章的基础;第二章市场化运营环境下电力系统可用输电能力模型和计算研究,主要运用新的数学方法,建立电力系统可用输电能力新模型和计算方法;第三章系统最优潮流新计算方',主要考虑两类最优潮流问题的计算:传统稳态最优潮流问题和暂态稳定最优潮流,建立了具有良好收敛性能的新算法;第四章电力市场风险管理和基于风险管理的系统经济运行研究,提出了基于风险管理系统运营相关问题的新模型和计算方法;第五章电力市场动态均衡分析,运用非线性互补方法,建立了计及电力网络约束的动态投标模型、均衡点及稳定性分析;第六章电力市场混沌控制,针对Nash均衡稳定区域以外点的混沌特征,提出有效的控制方法。

该专著结合了电力、数学和管理三个交叉学科的前沿研究,其成果可解决电力工业市场化运营环境下出现的经济和技术问题,并可推广解决涉及经济和工程中涉及最优决策问题。

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