

Special Session VIII

Special Session Basic Information:

专栏题目
Session Title

中文：考虑清洁能源消纳的电力市场设计
英文：Electric Power Market Design and Renewable Energy Consumption

专栏介绍和征稿主题
Introduction and topics

中文：新能源占比逐步提升是新型电力系统发展的重要特征，然而新能源出力的随机性和波动性，需要电网配置更多灵活调节资源来应对。目前考虑储能、虚拟电厂、柔性负荷等新兴市场主体参与的新型电力市场建设仍处于起步阶段，存在灵活性资源需求和价值量化分析不够准确、新兴市场主体参与机制缺乏规范、市场优化模型中的多重随机因素建模不够精确、多类型市场的互补协调机制设计不够完善等问题。在新型电力市场机制设计、安全校核和其他关键技术方面的研究，对于完善我国电力市场品种和体系、鼓励各类市场成员积极主动参与市场竞争、增强系统灵活性以适应高比例新能源接入、加快推动新型电力系统构建，具有重要意义。为推动服务于新型电力系统的电力市场技术研究，策划“新型电力市场机制和清洁能源消纳”专题，探讨该领域的国内外最新研究进展和发展趋势，共享最新学术和技术理念，促进电力市场领域先进成果的推广与应用。

英文： With the continuous deepening of transition to clean energy, it is necessary to fully stimulate market competition and build an advanced power market system by utilizing multiple resources on the premise of ensuring the safe operation and green development of the power grid. China has made rapid progress in electricity marketization in recent years, during which a spot trading mechanism for electricity has been formulated. Market price signals have been used to guide power production and consumption, improving the reserve optimality of the power system and promoting the development of clean energy. However, while remarkable achievements have been made, there are also some problems existing, and utilization of clean energy, safety check, and other key technologies still need to be further investigated. To effectively guide the academic research and industrial application trend in this field and further strengthen academic exchanges, we sincerely invite global researchers to contribute actively to discuss hot topics and share latest view.

Special Session Chair(s):

照片	姓名 Name	蔡帜 Zhi Cai
	称谓 Prefix	Asso Prof
	部门 Department	Power Automation Department
	单位 Organization	China Electric Power Research Institute
	城市/地区 City/Region	Beijing
	邮箱 Email	caizhi@epri.sgcc.com.cn

Organizer's Brief Biography

中文：蔡帜，CSEE 高级会员，IEEE PCCC 青年专家委员会理事，中国电力科学研究院技术专家，《智慧电力》等期刊编委。负责电力市场和调度计划软件核心算法及功能研发，提出基于多随机场景的电能与辅助服务联合优化技术，在国调、福建、四川、山西等电网应用；发表 SCI 及 EI 检索论文 100 余篇；以主要撰写人角色编写标准 2 项；授权发明专利 70 余项；获多项省部级科技进步奖。

英文：Zhi Cai (M'20), CSEE Senior Member, received the B.S. and M.S. degrees in electrical engineering from Tsinghua University, Beijing, China, in 2006 and 2009. Currently, he is an associate professor in China Electric Power Research Institute. His research interests center around modeling and analyzing problems in power system. Recently, he is working on the construction of various provincial electricity spot markets and China's transregional electricity spot market. He has authored more than 100 publications in journals and proceedings of international conferences.