

《电化学储能安全标准》线上研讨会

Virtual Training Workshop-Safety Standard Development of Energy Storage

2021年12月21日

Shanghai, December 21, 2021

支持单位: Host

- 应急管理部国家安全科学与工程研究院 / National Academy of Safety Science and Engineering, MEM

支持单位: Supporting Units

- 北京朗泰华科技发展中心/Beijing Safever Science & Technology Innovation Center
- 中美能源合作项目 (ECP) /US-China Energy Cooperation Program
- 上海化工研究院有限公司/Shanghai Research Institute of Chemical Industry

日期: 2021年12月21日

Date: December 21, 2021

语言: 中英文同声传译

Language: Chinese and English with simultaneous interpretation

活动日程 Program Agenda

时间/Time	日程/Agenda
09:10-09:40	<p>主旨报告（储能安全标准）/Keynote speech</p> <p>《电化学储能电站安全管理暂行办法》制定的过程和考虑</p> <p>Briefing on the <i>Safety Management Measures for Electrochemical Energy Storage Power Station</i></p> <p>演讲人：刘永东，中电联标准部主任</p> <p>Liu Yongdong, Director of Standardization Department of China Electricity Council (CEC)</p>
09:40-10:00	Q&A
10:00-10:40	<p>主旨报告/Keynote Speech</p> <p>交通电气化挑战（动力电池安全与电池梯次利用机遇与挑战）</p> <p>Challenges in Electrification of Transportation</p> <p>演讲人：Bob Weisenmiller，美国国家科学院能源与环境系统部门的董事会成员，加州中国气候研究院专家</p> <p>Bob Weisenmiller, Board member, Energy and Environmental Systems Division, National Academy of Sciences, Distinguished Fellow in the California Institute of Climate Change</p>
10:40-10:50	问答 Q&A
10:50-11:30	<p>主旨报告（储能安全标准）/Keynote speech</p> <p>标准对消防安全和储能系统的影响</p> <p>The Impact of Standards on Fire Safety & Energy Storage Systems</p> <p>演讲人：Denice Durrant，UL 标准专家</p> <p>Denice Durrant, Standards Engineering Program Manager</p>
11:30-11:40	问答 Q&A
11:40-14:00	休息/lunch break
14:00-14:40	<p>主旨报告/Keynote Speech</p> <p>储能系统安全标准及实践</p> <p>Safety Standards and Practices for Energy Storage Systems</p>

	<p>演讲人：余慎思，伊顿电气亚太区电力工程系统和服务、电源传输和服务部门专家</p> <p>Shensi She, Expert of EESS (Electrical Engineering Systems & Services) and PDSS (Power Distribution Systems & Services) Division, Eaton APAC</p>
14:40-14:50	问答 Q&A
14:50-15:30	<p>主旨报告/Keynote Speech</p> <p>电化学储能系统防火防爆设计和认证要点</p> <p>Key Factors of EESS Fire Safety Design and Authorization</p> <p>演讲人：肖秋平，上海化工研究院工业安全工程中心主任、上海化工研究院工业安全首席专家</p> <p>Qiuping Xiao, Director of Industry Safety Engineering Center and chief expert for industry safety, Shanghai Research Institute of Chemical Industry Co., Ltd.</p>
15:30-15:40	问答 Q&A
15:40-16:20	<p>主旨报告/Keynote Speech</p> <p>储能系统电池安全技术</p> <p>Safety Technology for Energy Storage Battery</p> <p>演讲人：童国道，南京鼎尔特科技有限公司董事长、东南大学自动化学院产业教授</p> <p>Guodao Tong, Chairman of Nanjing Delto Technology Co., LTD., Professor of Southeast University.</p>
16:20-16:30	问答 Q&A
16:30	结语 Closing

活动背景： Cooperation Background

“双碳”目标下，我国产业结构、技术结构乃至整个发展方式将发生全局性、系统性的重大变革，高能耗、高碳的产业将加快转型升级或加速退出，新技术、新工艺、新业态将大量涌现，清洁电力、新能源汽车、新材料、高端装备、绿色环保等行业将加速发展，特别是氢能、电化学储能、碳捕获、电力存储、热能存储、抽水蓄能、电燃料等将迅猛发展，一些传统的安全风险也会随着产业结构变革而转变，一些“看不见、摸不着”的新型安全风险会逐渐凸显出来，给安全监管工作带来影响和挑战。

Under the goal of achieving carbon peaking and carbon neutrality, there will be overarching and systematic changes in China's industry and technology structure. Industries with high energy consumption and carbon emission will accelerate their transformation, upgrading or withdrawal. A large number of new technologies, new processes and new forms of business will emerge. Clean electricity, electric vehicles, new materials, high-end equipment, and green environmental protection will accelerate development, especially in hydrogen energy, electrochemical energy storage, carbon capture, power storage, heat storage, pumped storage, and electric fuel. Some traditional security risks will also change with the change of industrial structure. New risks that are invisible and intangible will gradually emerge, bringing impacts and challenges to safety supervision.

如何适应新形势，确保“双碳”目标安全实现，已成为全面贯彻新发展理念、推动高质量发展的重要课题。应急管理部国家安全科学与工程研究院（以下简称国家安研院）作为我国安全科学与工程领域的高端智库，持续高度关注“双碳”目标下的新型安全风险防控工作，并以此为专题开展了多种形式的调查研究，与中外企业和相关研究机构进行了深入探讨交流，在了解各行业“双碳”目标实现路径的基础上，研判了可能带来的新型重大安全风险，提出了一系列防控措施，形成了一批研究成果。

How to adapt to the new situation and ensure the realization of carbon peaking and carbon neutrality goals has become an important issue for comprehensively implementing the new development philosophy and promoting high-quality development. National Academy of Safety Science

and Engineering, MEM (NASSE) as a leading think tank in safety science and engineering in China, sustained attention to the prevention and control of the security risks under the carbon peaking and carbon neutrality goals. It has also carried out various forms of investigation and research on this topic, and conducted in-depth discussions and exchanges with Chinese and foreign enterprises and relevant research institutions. On the basis of understanding the path of achieving "dual carbon" targets in various industries, it analyzed the potential security risks and issued a series of prevention and control measures.

为进一步提升公众对于“双碳”目标下新型安全风险的认知，推动相关企业做好安全防范工作，自本月起，国家安研院将以线上线下相结合的形式，举办“双碳”目标下新型安全风险防控系列培训活动，交流分享研究成果。培训活动主要围绕各相关行业如何防范化解“双碳”目标下面临的重大安全风险，从发展规划、标准建设、安全管理、应急救援等方面开展。

In order to further enhance the public's awareness of new security risks under the "dual carbon" target, and promote the safety protection of related enterprises, NASSE will hold a series of training activities on new security risk prevention and control under the "dual carbon" target in the form of online and offline, to exchange and share research results. The series mainly focus on the measures to resolve the major safety risks faced by the relevant industries under the "dual carbon" goal, from the aspects of development planning, standard construction, safety management, and emergency rescue.

电化学储能电站作为新能源最核心的关键技术，在保障能源安全、推动能源绿色转型中发挥着重要作用，对实现碳达峰、碳中和具有重要意义。同时，电化学储能电站也会带来一些新的安全风险，涉及储能电池、电池管理系统、电缆线束、系统电气拓扑结构、预警监测消防系统、建设运行环境、安全管理等多方面。

目标：学习借鉴欧美国家的相关经验和标准建设情况，交流探讨储能安全领域的理念、政策和适用技术，助力我国储能安全标准体系建设。

As the key technology of new energy, electrochemical energy storage power station plays an important role in ensuring energy security and promoting green energy transformation. It is of great significance to achieve the goal of carbon peaking and carbon neutrality. At the same time, electrochemical energy storage station also bring some new safety risks, involving risks in energy storage batteries, battery management system, cable harness, system electrical topology, early warning and monitoring fire protection system, construction and operation environment and safety management.

Objective: To learn from relevant experience and standard construction of European and American countries; discuss and exchange ideas, policies and applicable technologies in the field of energy storage safety; promote the energy storage safety standard system in China.