

//// Panel Session 06 ////

Reliability and Resilience Assessment of Integrated Energy Systems

○ INTRODUCTION AND TOPICS ○

The reliability and resilience of integrated energy systems is essential for ensuring the stable and efficient operation of modern energy networks. This panel session will delve into advanced methodologies and practical approaches for assessing and enhancing integrated energy system reliability and resilience. As renewable energy sources, distributed generation, and smart grid technologies become more integrated, the complexity of energy systems increases, creating both challenges and opportunities for reliability and resilience assessment within a sustainable and intelligent energy framework.

This session will bring together leading experts to discuss recent advancements, case studies, and practices in the reliability and resilience assessment of integrated energy systems, with a focus on supporting the development of a green and intelligent Energy Internet. Topics will cover probabilistic modeling, reliability and resilience analysis, fault detection, and strategies for efficiency improvement.

Attendees will gain valuable insights into the latest research and practical solutions aimed at bolstering the reliability and resilience of integrated energy systems. This session offers a unique platform for knowledge exchange and collaboration among researchers dedicated to advancing the reliability and resilience of energy systems.

○ PANEL SESSION CHAIRS ○

**Dr. Kai Hou** Tianjin University, China

Kai Hou received the Ph.D. degree in electrical engineering from Tianjin University, Tianjin, China, in June 2016. He is currently an Associate Professor with the School of Electrical and Information Engineering, Tianjin University, Tianjin, China. His research interests include reliability and resilience assessment of electric power and integrated energy systems. His main academic contribution can be summarized as follows:

Dr. Hou is focused on "reliability and resilience assessment of integrated energy systems," with a particular emphasis on two key technologies: 1) Reliability assessment methods for integrated energy system operation that consider multiple stochastic factors. 2) Fast resilience assessment methods for integrated energy systems and precise enhancement techniques.

Dr. Hou has published 27 SCI papers with first/corresponding authorship, including 1 hot paper, 3 ESI highly cited papers and 6 papers in multi-disciplinary field. He has authorized 16 national invention patents. He hosted 17 scientific research projects, including the General & Youth Programs of NFSC, the Special Founding & First-Class Programs of China Postdoctoral Science Foundation. He won 2 first prize of Provincial Science and Technology Awards, and has been supported by the Young Elite Scientists Sponsorship Program from CSEE.

○ PAPER SUBMISSION ○

For panel sessions, please contact panel chairs at

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before submission.

○ ORGANIZATIONS ○



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