Special Session 36: Enhanced Techniques for Flexible Power Transmission and the Dynamics of Electricity Markets in Distribution Networks

Session Organizers:

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Brief Description of the Session Thematic:

Electricity Markets in Distribution Networks" delves into the latest advancements in power transmission technologies and their impact on the electricity market. It discusses how innovations in smart grid technology, demand response systems, and energy storage solutions are enabling more flexible and efficient power distribution. The session also explores the challenges and opportunities presented by the integration of renewable energy sources and the need for dynamic pricing models that reflect real-time supply and demand. Participants gain insights into how these changes are shaping the future of electricity markets, emphasizing the importance of regulatory frameworks that support a sustainable and competitive energy sector.

Topics and Keywords:

1. Integration of AC–DC Hybrid Systems in Modern Distribution Networks
2. Optimizing Renewable Energy Integration in AC–DC Hybrid Systems
3. AC–DC Conversion Technologies for Flexible Power Transmission
4. Peer-to-Peer Energy Trading Mechanisms and Market Structures
5. Demand Response Mechanisms in P2P Distributed Energy Networks

Keywords: AC – DC Hybrid Systems; Distribution system; Peer-to-Peer Energy Trading; Renewable Energy Integration