Special Session 27: Low Carbon Transformation Path of Power System: Climate Change and Industrial Restructuring

Session Organizers:

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Brief Description of the Session Thematic:

This special issue seeks to analyze the impact of industrial transfer and climate change on the decarbonization path of power utilities. The focus of this special issue is on understanding how the impact of industrial transfer and climate change on renewable energy generation and power load demand, revealing the evolution law of electricity supply and demand balance from a long cycle perspective. How Electric power companies formulate operational management strategies to address the new electricity supply and demand relationship caused by the above impacts, and how to address the equity and just transition issues in regional energy development. How to develop a decarbonization path of power utilities.

Topics:

This session will consist of lots of topics such as:

1. Impact of climate change on low-carbon transformation of power system
2. Interactive relationship between industrial structure adjustment and low-carbon transformation of power system
3. Exit of coal power in low-carbon transition
4. Grid integration of renewable energy
5. Grid optimization in low-carbon transition of power system

This session aims to gather leading researchers and practitioners, thus providing an authoritative survey of the state of the art in this vibrant interdisciplinary field. We welcome original research articles, review papers and case studies that showcase the development of decarbonization pathways for power utilities and share relevant experiences.

Keywords

Energy Storage Systems; Distributed Energy Resources; Low-Carbon Technologies; Industrial Transfer; Climate Change; Decarbonization Path; Power Utilities; Smart Grids; Equity and Just Transition; Regional Energy Development; Equity and Just Transition; Electricity Supply and Demand; Machine learning; Operational Management Strategies; Energy Efficiency