

Special Session 7

Complementary and coordinated planning, operation and control of multi-energy systems

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Scope of the Session:

The large-scale development and utilization of renewable energy sources, such as wind power, photovoltaic and hydro-power, is an important measure to realize the transformation of China's energy strategy. But the scenery and other renewable energy power generation has randomness and volatility, with the contradiction between the increases of the size of consumption have become increasingly prominent. Due to different water scenery complementary power supply having good performance, the multi energy complementary is an important way to improve renewable energy consumptive ability. In order to promote the effective use of difference renewable energy resources, it must adopt a multi-energy complementary system with coordinated planning operation and control.

In this session, we focus on the complementary and coordinated planning, operation, and control of multi-energy systems, which can provide an important basis for the power systems' economy, reliability and security.

Topics of interest include but are not limited to:

- Multi-energy-system modeling and parameter identification
- Complementary analysis and flexibility enhancement of multi-energy systems Flexibility and optimization
- Medium and Long-term planning of multi-energy systems
- Coordinated and optimized operation of multi-energy systems
- Coordinated optimal control of multi-energy systems
- Power-to-gas system integration and power-to-heat system integration
- Demonstration and application of multi-energy systems
- Technology enabling efficient monitoring and operation of multi-energy systems.

Noted:

This Session solicits original work on the complementary and coordinated planning, operation and control of multi-energy systems. All submitted papers must be clearly written in excellent English and contain only original work, which has not been published by or is currently under review for any other journals or conferences.

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