**Special Session 3: Key Technologies for Collaborative Planning of Source-network-load-storage**

**Session Organizers：**

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**Brief Description of the Session Thematic:**

The vigorous development of new energy is a crucial pathway to achieving the goals of carbon peaking and carbon neutrality. Currently, the power system has witnessed the emergence of numerous new entities in various aspects of generation, grid, load, and storage, such as new energy storage, virtual power plants, load aggregators, and more. These entities have introduced new challenges to the traditional optimization and scheduling of power systems. Consequently, there is an urgent need for the precise modeling of these new entities in power system optimization and scheduling, aiming to explore their flexibility potential in accommodating new energy. Furthermore, the emergence of these new entities may increase the complexity of power system optimization and scheduling, necessitating the development of new theories and methods.

**Topics and Keywords:**

1 Coordination and Optimization Scheduling Modeling of Power Systems with Other Energy Systems
2 Optimization Methods for Power Systems with Uncertain New Energy Sources
3 Efficient Solution Algorithms for Large-Scale Power System Optimization and Scheduling
4 Artificial Intelligence-Based Methods for Power System Optimization and Scheduling
5 Optimization Methods for Electric Vehicle Charging and Discharging