Special Session 34: **Distribution System Resilience Assessment and Enhancement: Data-Driven Approach**

Session Organizers：

Qingxin Shi, North China Electric Power University, qshi@ncepu.edu.cn

Rui Cheng, North China Electric Power University, ruicheng@ncepu.edu.cn)

Brief Description of the Session Thematic:

Distribution system resilience refers to its ability to withstand and quickly recover the power supply function under the low-probability extreme events. The resilience assessment and enhancement require the modeling of extreme events and the multi-time-step dispatch of distributed emergency resources. Data-driven method enables the efficient solution of these modeling and dispatch problems.

Topics and Keywords:

This session will consist of lots of topics such as -
1. Generation of extreme weather scenarios
2. Fragility modeling of distribution system components
3. Resilience assessment of distribution systems
4. Pre-disaster allocation of emergency resources
5. Post-disaster dispatch of emergency resources for restoration

Keywords: Resilience; Distribution system; Distributed emergency resources; Extreme events