

Special Issue on “Enhancing Power System Resilience to Cope with Extreme Events”

Important Dates

Full Paper Submission: October 31, 2022

Final Decision Notification: November 30, 2022

Publication of Special Issue: January 31, 2023

Modern power and energy systems have witnessed lots of extreme events, such as natural disasters, man-made attacks (cyber and physical attacks), etc. These events have severely impacted power systems ranging from long-time outages to major equipment (e.g., power plants, substations, and transmission lines) damages. Therefore, it is in turn urgent to call for the enhancement of power and energy system resilience. The power system resilience is the ability to withstand extreme events (low-frequency high-impact incidents) efficiently while ensuring the least possible interruption in the supply of electricity, sustaining critical social services, and enabling a quick recovery and restoration to the normal operation state.

In order to promote the theoretical and practical studies in the resilient control and operation of power and energy systems, the editorial board of the CSEE Journal of Power and Energy Systems (CSEE JPES) invites potential authors to submit articles for review and publication in the special issue of CSEE on enhancing power system resilience to cope with extreme events. Topics of interest include, but are not limited to:

- Emerging Techniques and Technologies to Cope with Different Types of Extreme Events, e.g., natural disasters, cyber-attacks, etc.
- Metrics and Models to Quantify Power System Resilience
- Architecture of resilient power systems
- Resilient Control for Power and Energy Systems
- Condition Monitoring of Critical Infrastructure for Power and Energy Systems
- Simulation and Analysis of the Impacts of Extreme Events on Power Systems
- Big Data and Artificial Intelligence Applications in Power System Resilience
- Infrastructure Enhancement for Multi-energy Systems
- Resilience on Cyber-Physical Power and Energy Systems
- Optimization Methods in Power and Energy System Resilience
- Energy Policy and Industrial Experience on Power and Energy System Resilience
- Rapid Service Restoration and Infrastructure Recovery After Extreme Events
- Resilience-oriented Planning, Operation, Control, and Protection of Power Systems
- Utilization of Microgrids, Networked Microgrids and Other Emerging Smart Grid Components for Resilience Enhancement
- Situational Awareness of Power Systems Before, During, and After Extreme Events
- Modeling, Simulation and Analysis of Interdependent Infrastructures Against Extreme Events

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