

Study on the Model for the Cascade and the Resilience of Electric Power Supply System

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Research Objectives

For modern power network, we try to develop the *theoretical framework* in order to capture

- The triggering mechanism and the corresponding mitigation strategy of cascade
- The recovery behavior after the disruptive events

Research Roadmap

The *Agent-Based Model* will be employed to fulfill our goals.

The different agents including the operators and the set of technical components, as well as their interaction rules shall be predefined.

Then accordingly, the proposed framework can be applied on the example network.

Reference

Schlaepfer, M. et al. Reliability Analysis of Electric Power Systems Using an Object-oriented Hybrid Modeling Approach. *Proceedings of the 16th Power Systems Computation Conference, Glasgow, 14-18 July 2008*