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电力系统

现代电力系统连锁性大停电事故机理研究综述

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摘要：

对现代电力系统连锁性大停电事故的机理进行了阐述。根据不同的建模出发点将连锁大停电的研究分成2大类：一类是基于潮流计算和稳定分析的研究，主要介绍了基于复杂系统理论的建模分析和模式搜索策略；另一类是基于电网拓扑的研究，主要论述了关于小世界网络模型和无标度网络模型的研究。最后探讨了一些可能的进行电力系统连锁故障研究所需要解决的关键技术问题。

关键词：

A Review of Mechanism of Large Cascading Failure Blackouts of Modern Power System

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Abstract:

The mechanism of cascading failure blackout of modern power system is expounded. According to different starting points of modelling, the research on cascading failure blackout is divided into two branches: one of the branch is based on power flow calculation and stability analysis, in which modelling analysis and events mode search strategy based on complex system theory are presented; the other is based on the research of power system network topology, which mainly focuses on the small-world network model and the scale-free network model. Finally, some possible key technical problems to be solved for the research on cascading failure blackout of power system are pointed out.

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