电力系统

综合负荷模型对大区互联电网稳定特性的影响

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摘要：

针对实际电网在极限条件下存在的暂态功角稳定、动态稳定和电压稳定问题，研究了综合负荷模型(synthesis load model，SLM)与现有负荷模型的差异。仿真结果表明：负荷模型对暂态功角稳定特性的影响没有明确规律性。从负荷的频率特性和电压特性方面指出了负荷模型对大区域互联电网动态稳定性影响的特点；与现有模型相比，SLM模型具有使故障后母线电压恢复趋缓的特性。

关键词：

Effects of Synthesis Load Models on Dynamic Stabilities of Large-Scale Interconnected Grid

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Abstract:

For such problems as transient angle stability, dynamic stability and voltage stability of actual interconnected power grid under critical conditions, the differences between synthesis load model (SLM) and existing load models are researched. Simulation results show that there is not determinate regularity in the effect of load model on transient angle stability, and in respect of load characteristics and frequency characteristics the features of the effects of load models on dynamic stability of large-area interconnected power grid are pointed out. Comparing with existing load models, SLM possesses the feature to make the bus voltage recovery slow after the fault is cleared.

Keywords:

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