



电力系统电压稳定的安全控制研究述评
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摘要: 现代电力系统随着规模的日益增大、各种先进非线性控制系统的引入以及所面临的日益激烈的竞争性电力市场环境, 如何分析和评估大规模受端电网的电压稳定性是其面临的巨大挑战之一。文章综述了电压稳定的预防控制、校正控制和综合协调控制问题的数学模型、控制措施和计算方法, 并展望了电压稳定安全控制研究的发展方向。

关键词: 电压稳定; 安全控制; 预防控制; 校正控制

Review of the Research on Security Control of Power System Voltage Stability

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Abstract: With the modern power grid growing in scale as well as all kinds of non-linear control systems being applied in the grid, and competitive electricity market environment facing the grid, it is one of the great challenges to analyse and evaluate the voltage stability of bulk power systems, especially the large receiving-end power system. This paper gives a review on the mathematical models, control measures and computational methods for preventive control, corrective control and cooperative control of voltage stability, and then discusses the research trends in the field of voltage-stability security control.

Key words: Voltage stability; security control; preventive control; corrective control

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