

## 电力系统

### 低温雨雪冰冻灾害对我国电网损毁性影响概述

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#### 摘要:

为提高电网抵御低温雨雪冰冻灾害的能力, 回顾我国发生低温雨雪冰冻灾害的主要历史事件, 总结了该型灾害的时空分布特点及对我国电网损毁的特点。对比分析冰灾和拉尼娜事件的时间对应关系, 认为拉尼娜事件可作为预测冰雪灾害的一个重要因素。结合2008年初冰灾对电网损毁影响的统计结果, 分析了电网受损的原因和电网防冰灾设计标准, 探讨了我国电网防冰灾策略和技术措施, 建议从多方面采取措施以提高我国电网抗冰灾能力, 如骨干网架差异化设计、电网防冰灾设计标准优化调整、覆冰调查及冰区图修订完善、线路走廊规划及现场勘测、严重覆冰地段的线路改造等。

#### 关键词:

### Summary on the Damaging Effect of Cryogenic Freezing Rain and Snow Disaster on Power Grid in China

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#### Abstract:

To improve the capacity of power grid to withstand the cryogenic freezing rain and snow disasters, the features especially the spatial and temporal distribution characteristic of major national historical events of cryogenic freezing rain and snow disasters and the relevant damages to power grid in China are summarized. The time corresponding relationship between ice disaster and La Nina events in China are summarized. The time corresponding relationship between ice disaster and La Nina events shows that the La Nina event can be used as an important factor to predict ice and snow disaster. Based on the statistical damaging effect of ice and snow disaster on power grid in the early 2008, the causes of damage to power grid and the anti-ice design standards are discussed, then anti-ice strategies and technical disaster-reduction measures for power grid of China are explored. Finally allaround measures, e.g. different design of skeleton grids, optimal adjustment of anti-ice design standards, iceing survey and amendment of ice zone map, line corridor planning and on-site investigation, transformation of seriously icing lines, etc. are recommended to take to improve the anti-ice capacity of power grid in China.

#### Keywords:

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