

特约专稿

湖南电网2008年冰雪灾害调研分析

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收稿日期 2008-3-24 修回日期 网络版发布日期 2008-4-8 接受日期

摘要

2008年1月, 我国华中、华南等地区遭受了严重的冰雪灾害, 湖南省电网在此次冰冻事故中受灾尤为严重。为此, 中国电力科学研究院组织了专家考察组赴湖南省进行了实地调研。作为此次调研的总结, 文章论述了湖南电网覆冰闪络、倒塔、断线、变电设备受灾等情况, 并总结了冰灾中采取的措施。对湖南电网受灾原因的分析表明, 罕见气象条件是本次电网大面积受灾的主要原因。在湖南电网冰灾事故中, 覆冰程度大大超出设计容许范围, 需要合理提高输电线路防覆冰设防标准, 同时防冰闪的外绝缘设计以及变电站的防冰技术也有待加强。

关键词 [湖南电网](#); [冰灾](#); [覆冰](#); [倒塔](#); [抗冰](#)

分类号 [TM835](#)

Investigation and Analysis of Icing and Snowing Disaster Happened in Hunan Power Grid in 2008

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Abstract

In January 2008, major disaster caused by icing and snowing happened in some regions of Central China and South China, and in this severe icing and snowing disaster Hunan power grid is particularly suffered. For this reason, an expert group of China Electric Power Research Institute (CEPRI) is organized and went to Hunan province for field investigation. As a summary of this investigation, in this paper the failure conditions such as flashover caused by icing, collapse of towers, conductor breakage and damage of transformation equipments are described, and the countermeasures adopted in this icing and snowing disaster are summarized. The analysis on the reason causing the damage in Hunan power grid shows that the rare meteorological condition is the principal cause of large-area damage of Hunan power grid. During this icing disaster of Hunan power grid, the ice-coating extent greatly exceeds the permissible limit considered in design, thus it is necessary to reasonably fortify the standard against ice-coating of transmission lines, meanwhile, the design of external insulation and the de-icing technology for substations are to be enhanced.

Key words [Hunan power grid](#); [icing disaster](#); [ice-coating](#); [collapse of tower](#); [de-icing](#)

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