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特高压输电

向家坝—上海、锦屏—苏南±800 kV直流线路同走廊时平行接近距离和房屋拆迁范围的确定

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摘要

向家坝—上海、锦屏—苏南两单回±800 kV直流线路规划沿线同走廊平行走线，在走廊狭窄地区，合理确定它们之间的平行接近距离，对减少房屋拆迁、充分利用走廊资源非常重要。文章根据±800 kV直流线路的电场分布规律，采用加权平均方法控制混合合成电场，并针对线路所经区域的不同分别进行讨论，确定了直流线路在导线取最小对地高度下的最小接近距离和房屋拆迁范围，讨论了增加导线高度对直流线路接近距离和房屋拆迁范围的影响。文中的研究可为合理选取导线高度和线路接近距离提供理论依据。

关键词 ±800 kV直流线路；同走廊；合成电场；平行接近距离；房屋拆迁范围

分类号 TM74

Determination of Parallel Adjacent Distance Between Two ±800 kV DC Transmission Lines in China Erected Along Common Transmission Corridor and Corresponding House Removal Range for This Project

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Abstract

The line erection scheme for the two single circuit ±800 kV DC transmission lines in China, one is from Xianjiaba to Shanghai and another is from Jinping to Su'nan, is planned to erect them along common transmission line in parallel, thus in order to fully utilize the resources in corridor area and reduce the house removal range for the line construction it is important to rationally decide the parallel adjacent distance between the two lines in the region where the width of the corridor is narrower. According the distribution of electric field created by ±800 kV DC transmission line, the weighted average method is used to control the hybrid total electric field and the researches on the differences of the regions where the two transmission line pass through are carried out respectively, then the least adjacent distance and the house removal range under the minimum height of DC transmission line over the ground are decided; and the impact of increasing the height of conductor on both parallel adjacent distance between lines and house removal region are analyzed. The obtained research results are available for reference in rationally choosing the height of conductor over the ground and the parallel adjacent distance.

Key words ±800 kV DC transmission lines；common transmission corridor；total electric field；parallel adjacent distance；house removal range

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