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Research and Application of Centralized Islanding Detection Method with Renewable Energy Source

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Abstract

The conventional passive islanding detection methods have large non-detection zones when the output power of the new power generation unit is close to that of the local load. And also the conventional active islanding detection methods have the problem of mutual interference and degradation of power quality. Based on the analysis of the island generation mechanism with large-scale Renewable energy Source, an anti-island integrated collaborative control technology is proposed, and a series of centralized anti-islanding devices are developed. The simulation and engineering application is also applied, It provides a useful exploration for the safe and reliable operation of large-scale new energy accessed.