

A hybrid islanding detection for distributed generation systems using
pulse current injection

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Abstract

This study proposes a hybrid islanding detection method which including active method and remote method for distributed generation. The pulse current injection (PCI) as active method is utilized to find out non-detection zone (NDZ). The islanding system is detected by PCI method which is faster than other conventional active islanding detection methods. Furthermore, the power line commutation (PLC) as remote method to keep islanding detection system stably and accurate. Finally, the performances of the proposed scheme follow IEEE-929 and IEEE-1547 standards are validated by simulation and experimental results.

Keyword : anti-islanding, distributed generation, micro-grid, pulse current injection, power line communication.