

## Methods for Protecting Network from Islanding Danger

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### ABSTRACT

The process of energizing loads from other sources like a distributed generator with a total disconnection of utility grid at the point of common coupling is called islanding. The islanding phenomenon affects the network by safety issues and bad impact on the utility and connected loads, especially the workers on the utility. Hence, it must be detected by a suitable anti-islanding (AI) technique which is needed to be faster in terms of time detection and smaller or negligible non-detection zone. To detect this phenomenon, there are local and remote AI techniques. In this paper, local AI techniques are illustrated, which are used for improving the performance regarding the size of the non-detection zone and detection speed.

**Keywords:** Anti-islanding (AI), Distributed Generation (DG), Photovoltaic (PV), Power quality; utility Grid-connected photovoltaic; Islanding detection.

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