

Question 1.06: What considerations can be used to balance the relative risk of mal-operation for non-islanding disturbances against risk of non-tripping in response to islanding

Maloperation for non-islanding disturbances has caused pull out of large amount of RE generation and impacting the grid frequency. Such an event under stressed operating conditions may further stress the system. As more RE generation is planned to be integrated into the grid it would be prudent to take the remedial actions and reduce the mal-operation.

Unintentional island will risk human safety and the electrical network. Anti-islanding schemes to be balanced against the costs imposed by these schemes. If a simple and low-cost anti-islanding scheme reduces risk to a level below other electrical safety risks that are currently considered acceptable, it is debatable whether a scheme with better detection performance, but higher costs (in financial or performance terms), is necessary. One of the main limitations with local detection schemes is that each scheme has an operating region where islanding conditions cannot be detected in a timely manner. This region is called the non-detection zone (NDZ). The impact of the non-detection zone can be negligible in some cases and can be significant in other cases.