Improved Load Shedding Scheme considering Distributed Generation

With high penetration of distributed generation (DG), the conventional under-frequency load shedding (UFLS) face many challenges and may not perform as expected. This article proposes new UFLS schemes, which are designed to overcome the shortcomings of traditional load shedding scheme. These schemes utilize directional relays, power flow through feeders, wind and PV measurements to optimally select the feeders to be disconnected during load shedding such that DG disconnection is minimized while disconnecting required amount of consumption. These different UFLS schemes are compared in terms of frequency response, amount of consumption and DG disconnected during load shedding.

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