

عنوان مقاله:

The Combination of Load Shedding and Removal of Capacitors in Under Frequency Situations

محل انتشار:

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خلاصه مقاله:

Under Frequency Load Shedding (UFLS) is an important scheme to prevent the collapse of the power system. However, this method is not able to stabilize the system all by itself, as well as frequency. Voltage also affects the stability of the network. Shunt capacitors that are in service during normal operation for maintaining system voltage and dynamic MVAR reserve, inject too much reactive power and thus voltage will be increased. So UFLS will not work alone and a scheme should be considered to remove the capacitor proportional to load shedding. In this paper two methods proposed for coordinated under frequency load and capacitor shedding (UFCS) and its implementation approach to effectively preserve system stability following small and large disturbances. To confirm the feasibility of the approach, the proposed method has been used to design coordinated UFLS and UFCS schemes for a power network and has been simulated with PSAT toolbox of MATLAB. In addition, the proposed scheme has been combined with automatic switching of shunt reactors to improve the performance of the scheme.

کلمات کلیدی:

Load Shedding, Shunt Capacitors, Compensation, Voltage Collapse, UFLS

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