Optimal location of SVC for dynamic voltage stability improvement with considering the wind farms

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In this study provide objective function with optimal placement SVC and Wind farms, with the aim of reducing the voltage deviation buses, improve voltage profile and chargeability increase in voltage with reducing active power losses done and to optimize these functions of GA to locate and the optimal size SVC and also places with active and reactive power capacity of wind turbines with induction generator is used. For evaluation the ability of the proposed method of a system 30_bus , 6_car IEEE as used test network and to dispatch optimization objective functions MATLAB software is used. Then out of line and create critical situations the impact of the proposed method showed. as a result with this proposed system increase of system load and voltage profile and reduced system losses.

Keywords: network voltage stability, SVC, wind farms, GA, voltage profile

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