

عنوان مقاله:

Effects of Parallel FACTS Devices on Voltage Stability

محل انتشار:

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خلاصه مقاله:

This paper presents a study of Parallel FACTS devices mainly Static Var Compensator (SVC) and STATic COMpensator (STATCOM) on steady-state voltage and power Stability. Their modeling and effects on power steadystate system performance have been studied. It also studies static stability improvement of the power system and hence power flow improvement in the network. Effects of FACTS on system loadability have been discussed and presented here. A method based on the concept of maximum power transfer capability of the lines has been used to identify the optimum place for the implementation of FACTS devices . In this study, the limits of active and reactive power in PV buses are considered. The study has been carried out on the IEEE 24 bus test system. Test system reveals that the incorporation of SVC and STATCOM significantly improves static voltage stability, the line power transfer capability and loadability of the system and therefore, the stability of the system is increased. It has also been .observed that for the improvement of these parameters, the STATCOM is more adequate than the SVC

کلمات کلیدی:FACTS Devices, Steady-State Voltage and Power Stability, SVC, STATCOM

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