

## Comparative Study for Power Systems Transient Stability Improvement Using SFCL ,SVC,TCBR

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**Abstract :** This paper presents comparative study for power systems transient stability improvement using three FACTS devices: the SVC(Static Var Compensator), the Thyristor Control Breaking Resistor (TCBR) and superconducting fault current limiter (SFCL)The transient stability is assessed by the criterion of relative rotor angles. Critical Clearing Time (CCT) is used as an index for evaluated transient stability. The present study is tested on the WSCC3 nine-bus system in the case of three-phase short circuit fault on one transmission line.

**Keywords :** SVC, TCBR, SFCL, power systems transient stability improvement

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