

Flexible Alternative Current Transmission System Impact on Grid Stability and Power Markets

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Abstract : FACTS devices have great influence on the grid stability and power markets price. Recently, there is intent to integrate a large scale of renewable energy sources to the power system which in turn push the power system to operate closer to the security limits. This paper discusses the power system stability and reliability improvement that could be achieved by using FACTS. There is a comparison between FACTS devices to evaluate their performance for different functions. A case study has also been made about its effect on reducing generation cost and minimizing transmission losses which have good impact on efficient and economic operation of electricity markets

Keywords : FACTS, grid stability, spot price, OPF

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