Abstract

In this paper the performance of Synchronous Generator which is act as a Dispersed Generator is examined in controlling the flow of power over the transmission line. This project presents real and reactive power flow control through a transmission line by placing Synchronous Generator at the load end along with UPFC at the midpoint of a power system.
The real and reactive powers can be easily controlled in a power system using a Synchronous Generator and UPFC in the system. The Matlab simulation results are presented to verify the model. The result of network with and without using Synchronous Generator and UPFC are compared in terms of active and reactive power flows in the line and active and reactive power flows at the load end to analyze the performance of generator. After using UPFC the power transfer capacity has increased. Hence consumer will be benefited. The studies are performed based on well known software package MATLAB/Simpower tool box.

Reference

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Performance Comparison of UPFC for Smooth Power Flow in Coordination with Dispersed Generator

- “The symmetrical Hybrid Power Flow Controller- A New technology for Flexible AC Transmission (FACTS)

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**Key words**

- Power Flow
- Dispersed Generation
- Load bus
- Utility Supply
- FACTS
- UPFC
- MATLAB/Simulink tool box.