

## Assessment of ATC with Shunt FACTS Devices

**Authors :** Ashwani Kumar, Jitender Kumar

**Abstract :** In this paper, an optimal power flow based approach has been applied for multi-transactions deregulated environment for ATC determination with SVC and STATCOM. The main contribution of the paper is (i) OPF based approach for evaluation of ATC with multi-transactions, (ii) ATC enhancement with FACTS devices viz. SVC and STATCOM for intact and line contingency cases, (iii) impact of ZIP load on ATC determination and comparison of ATC obtained with SVC and STATCOM. The results have been determined for intact and line contingency cases taking simultaneous as well as single transaction cases for IEEE 24 bus RTS.

**Keywords :** available transfer capability, FACTS devices, line contingency, multi-transactions, ZIP load model

**Conference Title :** ICEET 2014 : International Conference on Electrical Engineering and Technology

**Conference Location :** Melbourne, Australia

**Conference Dates :** December 16-17, 2014