Maximization of distribution company profit with distributed generations' units and interruptible loads

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Abstract:

Since electric power restructured systems caused to raise a competitive markets, using of options that provide active participation in market and maximization freedom action profit to Distribution Company is vital. Hence the purpose of this article is "maximization of distribution company profit with distributed generations units and interruptible loads" and it has been shown that how using of different contracts of load interruption beside planning of distributed generations units causes maximization of distribution company (PBUC) profit. Mixed integer nonlinear programming techniques is used to solve problems and the program implemented in GAMS software environment. The proposed model is implemented in 18-bus system and obtained results shows importance of proposed algorithm.

Keywords: Distribution Company, PBUC, Interruptible load, distributed generations