Abstract

DG is nothing but a small scale generation unit connected directly to the distribution network or near customer load center. This system may or may not be connected to the electric grid. DG has a limited size of 10MW or less especially when DG is used in a distribution network. DG is installed at the place where it becomes impracticable to build a central generation plant. DG is installed to improve the voltage profile as well as minimize losses. DG allocation is a crucial factor. Optimum DG allocation provides a variety of benefits. But inappropriate DG allocation can cause low or over voltage in the network. In this paper a load flow based method using ETAP software is used to determine the optimum location & optimum size of DG in a 33 bus distribution system for voltage profile improvement & loss reduction.

References

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Index Terms

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Distributed Generation  ETAP  load flow algorithm  loss reduction  optimum location  voltage profile improvement