

## SITING AND SIZING OF DISTRIBUTED GENERATION UNITS USING GA AND OPF

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### ABSTRACT

This paper deals with the important task of finding the optimal siting and sizing of Distributed Generation (DG) units for a given distribution network so that the cost of active and reactive power generation can be minimized. The optimization technique is based on Genetic Algorithm (GA) and Optimal Power Flow (OPF) calculations. Using the suggested technique of this paper, the search space of GA is limited and the optimum generation condition can be achieved. The proposed procedure has been applied to a distribution system and the results of simulations indicate that the application of the suggested technique can result in considerable savings.