INSTALLATION OF EMBEDDED GENERATION USING SENSITIVITY INDEX FOR LOSS MINIMIZATION IN POWER SYSTEM

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ABSTRACT

This paper presents an alternative method of solving loss minimization in power system using Sensitivity Index (SI). Newton-Raphson method is used for load flow calculation to determine the power flow and losses in each lines. The simulation involves the development of new technique to determine the location and sizing of the embedded generation (EG) in order to minimize the losses in the system. The proposed method were applied to a 6 and 14 busbar IEEE system to show its feasibility and capability. All simulation was done using the MATLAB version 6.00 programming. The location was identified based on the voltage stability L and the sensitivity index (SI) and sizing was determined heuristically.

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