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Energy Efficiency Improvement to Reduce Losses in the Electric Power Distribution System

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Abstract: *The distribution network of the Pune zone, which consists of the four 11kV distribution feeders A, B, C, and D, was analysed in this research. A and B Street distribution networks were taken into account in this study to increase electricity quality. The 165 MVA transmission station, located at the XYZ intersection, supplies the three (3) 33/11kv injection substations. The first thing that was taken into account was the gathering and analysis of data from the injection substations that feed energy to Moshi and Bhosari. Using Newton-Raphson Load Flow equations, the distribution network was modeled in the Electrical Transient Analyser Program (ETAP). The network's modeling of its current state reveals that it has a low voltage profile issue on the B network and overloading of distribution transformers on the A network.*

Keywords: Pune Zone, Transmission Station, Newton-Raphson Load Flow, Feed Energy

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