Abstract

The distribution system typically starts with the distribution substation that is fed by one or more sub-transmission lines. In some cases, the distribution substation is fed directly from a high-voltage transmission line, in which case there is likely no sub-transmission system. This varies from company to company. Each distribution substation will serve one or more primary feeders. With a rare exception, the feeders are radial, which means that there is only one path for power to ﬂow from the distribution substation to the user.

The power-ﬂow analysis of a distribution feeder is similar to that of an interconnected transmission system. Typically, what will be known prior to the analysis will be the three-phase voltages at the substation and the complex power of all of the loads and the load model (constant complex power, constant impedance, constant current, or a combination). Sometimes the input complex power supplied to the feeder from the substation is also known.

In power-flow analysis of distribution feeder has some types like Ladder Iterative Technique in ladder iterative technique linear and non-liner network type and another type of ladder iterative is General Feeder.