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ABSTRACT

Electricity distribution systems generally go through several stages, among others, namely: generator, transmission system, distribution system, installation (consumer). Transmission system is a system of electricity distribution between substations from end of the send to the end (one point of load) with a distance apart. This system is intended to reduce load losses that occur in the electric wire distribution media. In this distribution system parts of the power system are the most often subject to interference. So the main problem of the distribution system is how to overcome the interference in order to obtain a medium voltage distribution network that can guarantee the reliability or availability of electric power and can achieve harmony in the distribution and supply of electricity to consumers. Reliability of a medium voltage network system can be measured by calculating the number of service interruptions and the length of the outage. The greater disruption of service, the reliability of the medium voltage network is decreasing and vice versa. Because it has long been extinguished so that it has caused a lot of losses how to overcome it by using a middle point substation with the help of a SCADA system so that the fault current can be read quickly in the system so that it can be remote and probe faster. The results obtained after the installation of the middle point substation lose less because the location of the interference is more readable in the system.

Keywords: Voltage Interference, Power Distribution.