

IMPROVEMENT OF VOLTAGE AT MEDIUM-VOLTAGE NETWORK OF CISOLOK FEEDER IN PELABUHAN RATU MAIN SUBSTATION ON WEST JAVA PROVINCE

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ABSTRACT

In the operation of the distribution system the voltage values at each point of the line must meet the quality standard of voltage where the voltage (V) operation is limited to $0.9 V_{nom} \leq V_{operation} \leq 1.05 V_{nom}$ (or + 5% and -10% V_{nom}) in accordance with SPLN No. 01 Year 1995 ie + 5% and -10% of nominal voltage. For some feeder's in Sukabumi District, West Java Province still encountered some Medium Voltage Networks which have lower end voltage as an example of Cisolok Feeder in Pelabuhan Ratu main substation. Cisolok feeder has a network length of 165.46 kms and a tip end of 17.85 kV. Due to the occurrence of voltage drop and tip voltage that does not meet the standard voltage so that need to be repaired. There are several ways of fixing voltage on JTM distribution, in doing the repair must be adjusted to the condition of the network physically and its operation. In relation to Cisolok Feeder has a very long network length and load is large enough then in the discussion of the thesis used method of voltage corrective in accordance with network conditions that is using the method of network reconfiguration and the remaining load on the reconfigured channel will be borne with Bayah Kota Feeder. So that the voltage can be in accordance with the standard set.

Keyword : Medium Voltage Networks, Drop Voltage, Corrective On Feeder Voltage