

ANALYSIS OF DISTURBANCE ON 500 KV ELECTRICAL TRANSMISSION SYSTEM IN TASIKMALAYA EXTRA HIGH VOLTAGE SUBSTANCE ANALYSIS USING ROOT CAUSE ANALYSIS METHOD

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ABSTRACT

In the practice of distributing electricity there are many obstacles. One of them is the obstacle in the transmission system. The obstacles are caused by interference from various factors such as: natural factors, materials, tools, and human activities. This also happened at GITET 500 KV Tasikmalaya which distributes electricity in the southern route of Java Island, such as Kesugihan, Sepok, and others. The large number of disturbances has caused power outages throughout 2018-2020. Therefore, it is necessary to conduct an analysis to determine the cause of this disorder using the Root Cause Analysis method. This method is used to find the root cause of the transmission system disturbance. This study uses a quantitative method, which uses disturbance data recorded in the FOIS system at GITET 500 KV Tasikmalaya. The results obtained indicate that the cause of disturbance in GITET 500 KV Tasikmalaya is due to environmental disturbances, natural disturbances, human and equipment disturbances, and system disturbances. Based on 4 types of disturbances during the 2018-2020 period, the most dominant disturbance is environmental disturbance with basic events such as lack of education to the public about the dangers of playing around electrical conductors and so on. While corrective actions to the causes of disturbances during the last 3 years, one of which is making a program that educates the community around the tower about the dangers of flying kites around the tower.

Keywords: *Disturbance, Transmission System, Root Cause Analysis*