ABSTRACT

PT. Badak NGL is a company engaged in the production of Natural Gas Liquids. Where PT. Badak NGL is not required to supply electricity from PLN source rather than generating their own sources. Like any large-scale factories, should be maintained continuity of the power supply, to keep it stable so that the production process, production can be maximized. Because the production process is interrupted by an unstable power supply, up until the shutdown occurs, then the costs incurred would be very large, then for that one important thing to note is that the electrical safety system is in PT. Badak NGL. The final project is to analyze the transient stability and load shedding mechanisms contained in the electrical system of PT. Badak NGL Bontang to obtain adequate reliability and continuity. In this final analysis was conducted on the transient stability and load shedding mechanisms due to a generator outage, short circuit, and motor starting. Simulation results show that the loss of 1 generator when the 7 generator ON requires the presence of load shedding scheme's first phase release of two generators and six generators ON when load shedding requires the presence of a second phase. In case of short circuit in the bus, the system voltage falls to the lowest condition necessitating isolation of disturbance through the opening in the CB noise source. In addition, the case is still allowed motor starting when 8 generator ON.

Keywords: transient disturbances, transient stability, load shedding.
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