

PORNCHAI PATIPARNPRECHAVUDHI : TRANSIENT STABILITY OF COGENERATION SYSTEM CONNECTED TO A NATIONAL GRID. THESIS ADVISOR : PROF.CHARUAY BOONYUBOL, Ph.D. 126 PP.

This thesis presents the result of a study of a cogeneration system which is connected to a national grid. As the cogeneration system is a system in which the generators are close to the loads, detailed models of generator and load are used, whereas, simple ones are used for the national grid system. In such doing, the analysis of system stability will render more accurate result.

The transient stability study is carried out to investigate the effect on the stability of the cogeneration system in case of fault at its own generator bus, in case of fault in the grid system's generator bus and the effect on the stability of the grid system when a fault occurs in the cogeneration system.

The stability analysis from the concept of cogeneration system is useful for system analysis before installation.