Supply Side Management pada Pengoperasian Pembangkit Hidro-Termis dengan Metode Gradien (Studi Sistem Tenaga Listrik Jawa-Madura-Bali)

Abstrak

Applied supply side Management of electric Energy in Supply side. This is prior in order to optimalize of using Hydro generation so it could operation as maximal as possible in the peak of system loading. In this WG] eficiency of using minimum fuel as expected can be occur in Operation the Thermal Generation.

In order to have an optimum .system, in Electric Power System that consist of unit Hydro Generation and other Thermal Generation such as PLTU1 PLTP, PLTGDI PLTG. A loading regulation is necessary to build in an electrical power generation, in order to have an optimum operation for electric power system, in which minimum fuel cost in operation electric energy need all. It is important to do because the electrical power generation serves electric power loads, that always change by the time, and also result fuel-cost per unit time in rupiahs pers hours, changes by the time.

The cost of Electrical Power System operation is set as the goal to be minimized and the junction of operation cost will be change. Gradient Method will be used in order to solve this hind of matters. The optimum of generation regulation in this paper was restricted as generation regulation of real power whenever the optimum generation using this gradient Method is more profitable then using merit order method technically and economically.

In this case Computer program will be Applied using computer simulation in which Borland Delphi release 7.0 as computer language programming, in order to to find an optimization of operation system hydro-thermis power generation. As the result of Computer simulation program, is picture, table or chart that would be easier to be understood.