Thesis Title : An Investigation on VAR Compensation of the

EGAT System: Region 2

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ABSTRACT

Reactive power control is one of the possible methods to reduce power losses in ac transmission systems. This thesis demonstrates the application of a nonlinear optimization technique to a load flow program in order to determine the optimum reactive power requirement at controlled buses of the EGAT region 2 system to minimize the power losses on the transmission lines. The simulated results on peak loading of the system show that transmission losses can be decreased by 4.5 percent.