

## **INTISARI**

Hemat energi merupakan salah satu program yang dicanangkan di Indonesia. Pemerintah republik Indonesia melalui presiden menginstruksikan agar setiap lingkungan instansi, Badan Usaha Milik Negara dan industri meningkatkan penghematan energi khususnya energi listrik. Listrik mempunyai daya reaktif yang timbul dari reaktansi jaringan dan beban induktif. Daya reaktif induktif tidak dapat dihilangkan tetapi dapat dikompensasi dengan daya reaktif yang bersifat kapasitif. Pemerintah memberikan pinalti biaya kepada konsumen listrik tertentu apabila pemakaian energi reaktifnya melebihi batas. Penghematan optimal dapat diperoleh dengan pemasangan *capacitor bank* ukuran tertentu sehingga menghasilkan faktor daya tidak kurang dari 85%. Investasi biaya pemasangan *capacitor bank* perlu diperhitungkan agar diperoleh penghematan yang optimal dengan biaya investasi yang layak.

Kata kunci : penghematan energi, *capacitor bank*, daya reaktif dan beban induktif

## ***ABSTRACT***

*Energy saving is one of programs which is targeted in Indonesia. The Government of republic Indonesia through President instructs that every Institute area, state owned enterprises and industry increase the economical use of energy especially electric energy. Electricity has reactive power arisen from reactance of linear circuit and inductive load. Inductive reactive power can not be eliminated, but can be compensated with capacitive reactive power by capacitor application. The Government gives penalty expense to the certain electrical consumer if the usage of reactive energy is excessing. Cost saving optimally by the installment of Capacitor Bank with certain units so that the power factor is not less than 85%. Cost investment of Capacitor Bank erection must be considered to obtained optimal cost saving on visible investment.*

*Keyword : Energy saving, Capacitor Bank, reactive power and inductive load*