

ABSTRACT

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Title : Installed Load Analysis and Energy Conservation
Study Program Opportunities at Bayongbong Health Center
UPT

This study discusses the Analysis of the Achievement of Electrical Energy Efficiency in Installed Loads at the Bayongbong Health Center UPT. The conservation of installed load energy aims to obtain optimal operation in energy use without changing the function of the building. The results of the observations made showed that almost all of the installed loads did not meet the specified standards and had too high power. Based on the background of the problem, this study aims to find opportunities for energy conservation in installed loads at the Bayongbong Health Center UPT. The methods used are calculating IKE, measuring the energy consumption of the lighting system, measuring the temperature and humidity in several rooms and measuring the power on the AC, calculating the efficiency of the installed load. The results of the analysis carried out, the IKE value in the last year was 94.11 kWh / m² / year which is included in the very efficient category according to DKI Jakarta Governor Regulation No. 38 of 2012. The results of the power measurement in the lighting system were 9,760.68 kWh / year, for the power in the cooling system was 16,751.7 kWh/year, for other loads of 32,646 kWh/year. Conservation opportunities in this study are that the lighting system has decreased to 4,987.44 or 49% of the previous lamp power usage, the cooling system has decreased to 8,484 or 50.6% of the previous AC power usage and for other loads it decreased to 19,511.8 x 900 or 40.22% of the previous load power usage.

Keywords: Energy Efficiency, Energy Consumption Intensity (IKE), Energy Conservation, Energy Management Lighting System, Cooling System, Other Loads