

***ENERGY AUDIT ANALYSIS AND ENERGY SAVING OPPORTUNITIES AS
AN EFFORT TO ACHIEVE ENERGY EFFICIENCY IN THE DISTRICT
PUBLIC WORKS AND WATER RESOURCES OFFICE***

Supervised by : Ahmad Fahriannur ST., MT

Rif'an Fahmi Azizi

*Study Program Renewable Energy Engineering
Majoring of Technique*

ABSTRACT

It is hoped that the use of electrical energy in industry and business can be carried out as well as possible, because this is very useful for encouraging consumers to be efficient in the use of electrical energy. Energy audit is a technique used to calculate the amount of energy consumption in a building or building and identify ways to save it. Therefore, research was carried out related to the Energy Audit at the office of the Public Works Department of Highways and Water Resources of Jember Regency with the aim of knowing energy consumption patterns in the lighting and air conditioning systems used according to the time period, analyzing and knowing the value of Energy Consumption Intensity (IKE) , as well as analyzing opportunities to save electrical energy consumed. The research results show that the total electrical energy consumption is 10,951,976 kwh/month, with an average IKE of 4.20 kwh/m²/month showing very good efficiency. Energy savings can be made by reducing the use of lights during the day and opening the window curtains so that lighting remains at maximum condition.

Keywords: Energy Audit, Energy Consumption, Energy Savings