

***Electrical Energy Audit at the Community and Village Empowerment Service in
Jember Regency***

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ABSTRACT

The Indonesian government is strongly committed to carrying out energy conservation processes in buildings. Energy audit is one effort that can be done to achieve electrical energy efficiency. This research was conducted at the Jember Regency Community Empowerment Service. The method used in this study starts from collecting secondary data in the form of electricity bills and collecting primary data including direct measurements, calculating the value of IKE. The purpose of this study was to determine the value of Energy Consumption Intensity (IKE) and the cost of electricity bills based on historical data from the Community and Village Empowerment Office, analyze the amount of electricity used in the Community and Village Empowerment Service, find out the lighting conditions and air circulation required. The results of this study are the total use of electrical energy consumption for 6 of 28,169 kWh at a cost of Rp. 42,875,458, the average IKE value for 6 months is 3.98 kWh/m² and is classified as very efficient, the lux value indicates a lot of lighting is lacking, and humidity in the room ranges from 33% -40% (RH) including the low humidity group. There needs to be additional ventilation in a room with minimal lighting and changing TL lamps to LEDs with the same power so that they are bright and comfortable.

Keywords : Energy Audit, Energy Consumption Intensity, Energy Efficiency