ABSTRACT

Name : *Febri Raharja*
Study Program : *Electrical Engineering*
Title : *Analysis of Electrical Energy Consumption Efficiency Opportunities Through Energy Conservation At dr. Soekardjo Hospital Tasikmalaya*

Most of the electricity producers in Indonesia use fossil fuel sources such as coal and crude oil. Fossil energy sources are non-renewable, leading to a depletion of energy reserves. Technological advancement is closely tied to the need for electricity. The increasing demand for electricity leads to a further reduction in energy reserves. As an energy-saving effort, the government has implemented policies regarding energy conservation. One tangible effort to support this is energy auditing. Through energy auditing, we can identify energy distribution patterns, allowing us to pinpoint areas of highest energy consumption and potentially saving energy through efficiency improvements. In this research, energy auditing was conducted at the Mitra Batik Building of RSUD dr. Soekardjo through detailed auditing. The research method employed observation and energy conservation. The process involved initial observation as the first step of energy auditing, followed by interviews with employees and a building survey to identify issues regarding the lack of electricity usage identification in the building. The audit began with data collection and processing, followed by analysis and calculation of the building's Energy Consumption Index (IKE), with recommendations provided if energy usage was deemed excessive. During the energy audit implementation, it was found that lighting and air conditioning measurements did not meet standards. The energy usage calculation in the Mitra Batik Building of RSUD dr. Soekardjo amounted to 273,642 kWh, with an Energy Consumption Intensity of 72.04 kWh/m2 in 2023, which is considered highly efficient.

Keywords: Energy Conservation Regulation, Energy Conservation, Energy Audit, Energy Efficiency, Energy Consumption Intensity