

**Audit Energi dan Analisis Peluang Penghematan Energi
di Madrasah Aliyah Negeri 2 Banyuwangi**

*Energy Audit and Energy Saving Opportunity Analysis
at Madrasah Aliyah Negeri 2 Banyuwangi*
Siti Diah Ayu Febriani, S.Si., M.Si.

Arino Dafa Tian

***Study Program of Renewable Energy Engineering
Majoring of Engineering***

Program Studi Teknik Energi Terbarukan
Jurusan Teknik

ABSTRACT

Electrical energy ranks third in total energy consumption by type of energy at 17.4%. Energy conservation policies are carried out to control energy use and regulate minimum energy usage standards for equipment that uses energy. MAN 2 Banyuwangi uses an electricity source from PLN with the type of electricity for social services class S-2. This study aims to determine the profile of energy use, the value of Energy Consumption Intensity, and the analysis of energy saving opportunities. The method used in this study is a quantitative method by processing primary and secondary data collected. The primary data is in the form of data on active power, light intensity (Lux), temperature, and room area of each room. The results of the research that has been done show that the consumption of electrical energy is 7211.09 kWh/month and the room area is 7302.60 m² then it is known that the Energy Consumption Intensity is 0.99 kWh/m²/month or 11.85 kWh/m²/year. From the results that have been obtained, it can be seen that energy saving opportunities can be identified by adjusting room requirements and regulating the use of devices that consume electrical energy as an implementation of an energy conservation program.

Keywords: *Energy, Energy Audit, Energy Consumption Intensity, MAN 2 Banyuwangi*