

***Audit of Electrical Energy in Lighting Systems and Air Conditioning Systems at
SDN Pakisan 1, Tlogosari District, Bondowoso Regency***

Ahmad Fahriannur, ST., MT Mentoring Lecturer

Muhammad Alfian Saputra

Renewable Energy Engineering Study Program

Department of Engineering

ABSTRACT

As time goes by the need for electricity will continue to increase, this can happen due to an increase in population and investment as well as technological developments including developments in the world of education. SDN Pakisan 1 which is in Pakisan Village, Tlogosari District, Bondowoso Regency does not yet have information regarding the energy consumption used so it is not known whether the IKE value is efficient or not. The school building area is 958.6 m² and there are 21 rooms at SDN Pakisan 1 with details, 12 classrooms, 2 teacher toilets, 4 student toilets and a teacher's room, cooperative, principal's room, prayer room, official residence, computer laboratory, library, security post, 1 room each. There are 2 meters at SDN Pakisan 1, these meters have a power of 2200VA and 900VA respectively. This research was carried out for 1 full month and the results obtained were that the light intensity (Lux) had not yet reached the standard, the room humidity was high enough so that it exceeded the applicable standards and the calculation of Energy Consumption Intensity obtained a value of 0.11806 kWh/, so the use of electrical energy in SDN Pakisan 1 is in the very efficient category according to the 2004 IKE Standards of the Ministry of National Education of the Republic of Indonesia.

Keywords: *Energy Audit, Energy Consumption Intensity, SDN Pakisan 1, Lighting System, Air Conditioning System.*