

***Energy Audit and Analysis of Energy Saving Opportunities at Paiton Selaras
Vocational Training Institute PT POMI, Probolinggo Regency***
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ABSTRACT

This study aims to analyze energy consumption and identify energy-saving opportunities at the Paiton Selaras Vocational Training Institute (LPK) PT POMI, Probolinggo Regency. The method used was a preliminary energy audit based on SNI 6196-2011, collecting primary data (lighting, temperature, humidity measurements) and secondary data (electricity bills, building layouts). The results showed an actual Energy Consumption Intensity (IKE) of 4.89 kWh/m²/month (highly efficient), while the theoretical value reached 67.5 kWh/m²/month due to shared electricity billing with other buildings. Lighting system analysis revealed some rooms did not meet SNI standards, such as the fabrication room (146 lux vs. 300 lux standard). The air conditioning system also showed mismatches between AC capacity and room requirements. Energy-saving recommendations include no/low-cost strategies (turning off unused equipment) and medium-cost strategies (adjusting AC capacity), which could reduce energy consumption by 18.53%. This study is expected to serve as a reference for improving energy efficiency in training facilities.

Keywords: Energy audit, energy efficiency, IKE, electricity savings, Paiton Selaras LPK