Audit Energi Dan Analisis Peluang Penghematan Konsumsi Energi Listrik Di Gedung *Workshop* 1 PT Intidaya Dinamika Sejati Jember

Saiful Anwar, S. TP., M. P. as chief counselor and Mochammad Nuruddin, ST., M. Si. a member counselor

Fajar Akhmad Zidane

Renewable Energy Engineering Study Program Engineering Departement

ABSTRACT

Indonesia's population growth and the construction of large buildings like schools, hospitals, administrative offices, shopping malls, and industrial businesses, all of which rely heavily on electrical energy for their operations, are driving up energy consumption. PT Intidaya Dinamika Sejati is a company that distributes genuine Pedrogil, Roots Blower, and Becker vacuum pumps in Indonesia. They also provide technical service consultants for a variety of products, including Roots Blowers, Screw Compressors, Air Locks, Control Panels, Automotive Service, and Motor Rewinding. The manufacturing process machine tools, lighting systems, air conditioning systems, and other supporting electrical equipment saw the most use in the PT Intidaya Dinamika Sejati Workshop. The methodologies employed in the research are Energy Consumption Intensity (IKE) and initial energy audit, and the variables analyzed are the area of buildings and buildings, total electrical power, and building energy consumption. Literature reviews, observations, and interviews with the company are all methods of data analysis. Based on historical data over the period of one year between April 2022 and March 2023, 9,850.59 kWh of electrical energy were consumed for a total price of Rp. 125,143,757. The conditioned IKE of electricity for each square meter per year is 3.128 kWh/m2. The non-air-conditioned building IKE benchmark is 3.4 kWh/m2/year. IKE at PT Intidaya Dinamika Sejati Jember's Workshop 1 Building is therefore rated as being very efficient.

Keyword : Audit energy, IKE, electrical energy.