ABSTRAK

Konsumsi energi listrik di PT. Trianggle Motorindo mengalami peningkatan setiap tahunnya , sehingga perlu dilakukan perhitungan konsumsi energi listrik ulang guna mengetahui apakah konsumsi energi listriknya masih hemat dan efisien atau tidak. Setelah dilakukan perhitungan konsumsi energi listrik, kemudian mencari alternatif peluang penghematannya.

Metode yang digunakan untuk mengetahui konsumsi energi listrik dan pengehematanya yaitu Metode Audit Energi listrik . Metode yang digunakan pada penelitian ini terbagi menjadi dua macam. Pertama adalah metode Audit Energi Awal. Pada metode ini, akan dilakukan perhitungan konsumsi energi listrik, sehingga diperoleh nilai Intensitas Konsumsi Energi (IKE) pada PT. Trianggle Motorindo. Nilai IKE PT. Trianggle Motorindo selama empat Tahun terakhir selalu meningkat. Dihitung Mulai tahun 2014 sampai 2018 , Gedung Perakitan Nilai IKE terhitung 8,13 - 10,17 kWh /m²/Tahun. Gedung Painting terhitung 60,6 - 126 kWh /m²/Tahun. Dari perhitungan selama empat tahun terakhir PT. Trianggle Motorindo khusus Gedung perakitan sangat efisien dan Gedung painting efisien. Metode Ke-dua adalah metode Audit Energi Rinci. Dalam metode ini akan didapatkan peluang Hemat Energi .

Pengaturan pengoperasian ulang Dua unit compresor di dua lokasi yaitu Gedung Perakitan selama satu jam peluang hemat energi (PHE) 1845 Kwh / RP. 1.911.014 per bulan dan Gedung Painting 1300,56 kWh / Rp. 1.347.094 per bulan. Pengalihan lampu penerangan dengan menggunakan trafo ke lampu berteknologi LED di Gedung Perakitan dan gedung painting menjadi peluang hemat energi (PHE). Gedung Perakitan 85,355 kWh / Rp. 1.945.017 per bulan dan Gedung Painting 3,811 kWh / Rp.86.853 per bulan. Pengalihan AC di Gedung perakitan yang berpendingin R22 berjumlah 35 Unit ke AC berpendingan R32 yang baru non inverter menjadi peluang hemat energi sebesar 69,587 kWh / Rp.1.585.693 per bulan. Pengoperasian ulang blower gedung berjumlah 23 unit yang dimatikan selama 1 jam dapat menjadi peluang hemat energi PHE sebesar 28,440 kWh / Rp. 648,092 per Bulan.

***Kata kunci**; Intensitas Konsumsi Energi, Peluang Hemat Energy*

ABSTRAK

Electric energy consumption in PT. Trianggle Motorindo has increased every year, so it is necessary to recalculate electrical energy consumption to determine whether the consumption of electricity is still efficient and efficient or not. After calculating the electrical energy consumption, then look for alternative savings opportunities.

The method used to determine the consumption of electrical energy and pengematematanya the Electric Energy Audit Method. The method used in this study is divided into two types. First is the Initial Energy Audit method. In this method, the calculation of electrical energy consumption will be performed, so that the Energy Consumption Intensity (IKE) value obtained at PT. Trianggle Motorindo. IKE Value PT. Trianggle Motorindo over the past four years has always been increasing. Calculated From 2014 to 2018, the IKE Value Assembling Building is 8.13 - 10.17 kWh / m² / Year. The Painting Building counts from 60.6 - 126 kWh / m² / Year. From the calculations for the past four years, PT. Trianggle Motorindo specifically the Assembly building is very efficient and the Painting building is efficient. The second method is the Detailed Energy Audit method. In this method an Energy Saving opportunity will be obtained.

Reoperation settings Two units of compressors in two locations namely Assembly Building for one hour energy saving opportunity (PHE) 1845 Kwh / RP. 1,911,014 per month and Painting Building 1300,56 kWh / Rp. 1,347,094 per month. Switching lighting by using transformers to LED technology in the Assembly Building and painting building becomes an energy saving opportunity (PHE). Assembling Building 85,355 kWh / Rp. 1,945,017 per month and Painting Building 3,811 kWh / Rp.86,853 per month. The transfer of air conditioners in the R22-cooled assembly building totaling 35 units to the new non-inverter R32 air-conditioner becomes an energy saving opportunity of 69,587 kWh / Rp.1,585,693 per month. Re-operation of the building blower totaling 23 units which are turned off for 1 hour can be a PHE energy saving opportunity of 28,440 kWh / Rp. 648,092 per Month.

***Keywords**; Energy Consumption Intensity, Energy Saving Opportunity*