ABSTRAK

Keberlangsungan sistem distribusi tenaga listrik kepada konsumen PLN khsususnya pelanggan PLN UP3 Serpong tentunya sangat dipengaruhi oleh tingkat keandalan sistem berdasarkan SAIDI (System Average Intrerruption Duration Index) dan SAIFI (System Average Interruption Frequency Index).

Tingkat keandalan tersebut juga akan mempengaruhi jumlah kWh penjualan tenaga listrik dan dapat merugikan di sisi perusahaan serta pelanggan juga. Dalam rangka memberikan solusi untuk hal tersebut maka penulis melakukan studi analisa perhitungan kWh terserlamatkan dan indeks keandalan dengan metode PDKB.

Hasil yang didapat dari analisis dan perhitungan yaitu pada tahun 2018 nilai SAIDI = 370,38 menit/pelanggan, SAIFI = 2,87 kali/pelanggan dengan metode PDKB. Sedangkan untuk jumlah kWh yang terselamatkan yaitu sebesar 1.447.010 kWh atau setara Rp 1.776.998.818,- .

Kata Kunci : SAIDI, SAIFI, Keandalan, PDKB

ABSTRACT

The continuity of the electricity distribution system to PLN consumers, especially PLN UP3 Serpong customers is certainly very influenced by the level of reliability of the system based on SAIDI (System Average Intrusion Protection Duration Index) and SAIFI (System Average Interruption Frequency Index).

This level of reliability will also affect the number of kWh sales of electricity and can be detrimental to the company and customers as well. In order to provide a solution for this, the authors conducted an analysis study of the calculation of the saved kWh and reliability index using the PDKB method.

The results obtained from analysis and calculations are in 2018 the value of SAIDI = 370,38 minutes / customer, SAIFI = 2.87 times / customer with the PDKB method. Whereas the number of saved kWh is 1.447.010 kWh or equivalent to Rp. 1.776.998.818, -

Keywords : SAIDI, SAIFI, Reliability, PDKB