ABSTRAK

APP merupakan alat milik PLN yang digunakan sebagai pembatas dan pengukur kosumsi energi listrik pelanggan. Peningkatan kebutuhan tenaga listrik setiap tahunnya meningkat sejalan dengan banyaknya kWh meter yang terpasang. Sehingga sangat membutuhkan pengelolaan guna mencegah terjadinya susut. PT PLN (Persero) ULP Cirebon Kota dalam menangani pengaduan pelanggan terkait penggantian kWh meter masih menggunakan sistem manual dan melalui proses panjang, sehingga menyebabkan *recovery time* terkait penggantian kWh meter menjadi lama. Secara tidak langsung mempengaruhi susut non teknis di PT PLN (Persero) ULP Cirebon Kota.

Penyusunan tugas akhir ini bertujuan untuk mengetahui nilai susut non teknis sebelum dan setelah dilakukan penggantian kWh meter di ULP Cirebon Kota serta rupiah yang dapat terselamatkan. Metode yang digunakan dalam penyusunan tugas akhir ini adalah metode RCPS. Dimana permasalahan susut non teknis ini dianalisa dengan pendekatan identifikasi masalah dan perancangan solusi yang mengulas akar permasalahan beserta langkah taktis penyelesaiannya berdasarkan matriks prioritas.

Berdasarkan matriks prioritas, penggantian kWh meter ini mendapatkan dampak yang lebih besar dengan implementasi yang lebih rendah. Hasil implementasi strategi penggantian kWh meter rusak tersebut berkontribusi sebesar 12,2% dari susut non teknis semester I 2023. Berdasarkan perhitungan yang dilakukan persen susut non teknis di ULP Cirebon Kota semester I 2023 (1,64%) lebih besar daripada semester I 2022 (0,14%). Namun terdapat kenaikan kedapatan kWh sebesar 366.295 kWh yang dapat ditagihkan kepada pelanggan terkait kelainan meter pada semester I 2023 dibandingkan semester I 2022. Sehingga selisih *saving* kWh antara semester I 2023 sebesar 977.443 kWh dimana lebih besar daripada semester I 2022 yang hanya 611.148 kWh.

Kata kunci: Alat Pengukur dan Pembatas (APP), kWh meter, susut non teknis

ABSTRACT

Measuring and limiting devices are tools owned by PLN which are used as limiters and meters for customers' electricity consumption. The increase in electricity demand every year increases in line with the number of kWh meters installed. So it really needs management to prevent shrinkage. PT PLN (Persero) ULP Cirebon Kota in handling customer complaints regarding the replacement of the kWh meter still uses a manual system and goes through a long process, causing the recovery time related to the replacement of the kWh meter to be long. Indirectly affecting non-technical losses at PT PLN (Persero) ULP Cirebon City.

The preparation of this final project aims to determine the value of non-technical losses before and after the kWh meter is replaced at ULP Cirebon City and the rupiah that can be saved. The method used in the preparation of this final project is the RCPS method. Where these non-technical losses are analyzed using a problem identification approach and designing solutions that review the root causes of the problem along with the tactical steps for solving it based on the priority matrix.

Based on the priority matrix, the replacement of this kWh meter gets a bigger impact with lower implementation. The results of the implementation of the strategy for replacing the damaged kWh meter contributed 12.2% of the non-technical losses in the first semester of 2023. Based on calculations made, the percentage of non-technical losses at ULP Cirebon City in the first semester of 2023 (1.64%) is greater than in the first semester of 2022 (0.14%). However, there was an increase in kWh receipts of 366,295 kWh that could be billed to customers regarding meter abnormalities in the first semester of 2023 compared to the first semester of 2022. So the difference in kWh savings between the first semester of 2023 was 977,443 kWh which is greater than the first semester of 2022 which was only 611,148 kWh.

Keywords: *Measuring and Limiting Devices, kWh meter, non-technical losses*