

ABSTRAK

Baterai merupakan salah satu sumber energi listrik yang sering digunakan oleh hampir seluruh aspek kehidupan manusia, baik dalam kehidupan sehari-hari, dalam berbagai dunia industri. Dalam industri telekomunikasi khususnya baterai berfungsi sebagai sumber energi listrik cadangan yang mensupply energi listrik ketika sumber daya utama (PLN) dalam kondisi abnormal. Tingginya tingkat gangguan PLN di rayon Sukabumi-Cianjur sangat berdampak pada operasional industri, termasuk industri Telekomunikasi. Hal ini berdampak pada kontinuitas operasional BTS telekomunikasi cluster Sukabumi-Cianjur.

Dalam penelitian menganalisa kinerja battery (baru) tipe VRLA terhadap beban DC (BTS) agar tetap stabil pada saat frekuensi PLN off yang tinggi di cluster Sukabumi - Cianjur Indosat, metode penyelesaian yang dilakukan adalah melakukan pemeriksaan dan pengujian ulang terhadap baterai (baru) dengan cara melakukan *metode charge – discharge procedure* terhadap baterai (baru) dengan tujuan agar baterai (baru) yang akan digunakan dalam kondisi prima dalam mendukung kontinuitas operasional BTS cluster Sukabumi-Cianjur.

Dari metode charge - discharge battery yang dilaksanakan, diharapkan baterai yang akan digunakan dapat mendukung kontinuitas operasional BTS pada cluster Indosat Sukabumi-Cianjur, terlebih pada saat kondisi gangguan listrik yang tinggi dan dapat mengurangi frekuensi penggantian baterai cadangan.

Kata kunci: Baterai, *Charge – Discharge*, Baterai tipe VRLA



UNIVERSITAS
MERCU BUANA

ABSTRACT

Batteries are one source of electrical energy that is often used by almost all aspects of human life, both in everyday life, in various industrial world. In the telecommunications industry, especially batteries function as a source of electrical energy CDangan that supplies electrical energy when the main power source (PLN) is in abnormal conditions. The high level of PLN disruption in Sukabumi-Cianjur rayon greatly impacted industrial operations, including the Telecommunications industry. This has an impact on the operational continuity of the Sukabumi-Cianjur cluster telecommunications BTS.

In a study analyzing the performance of VRLA (new) type batteries against DC (BTS) loads to remain stable when the high PLN off frequency in the Sukabumi - Cianjur Indosat cluster, the method of settlement carried out is to carry out examination and retesting of new (new) batteries by conduct a method of charge - discharge procedure on the battery (new) with the aim that the battery (new) which will be used in top condition in supporting the operational continuity of the Sukabumi-Cianjur BTS cluster.

From the charge-discharge battery method implemented, it is expected that the batteries that will be used can support the continuity of BTS operations in the Indosat Sukabumi-Cianjur cluster, especially during times of high power disruption and can reduce the frequency of replacement battery replacement.

Key Word: Battery, Charge – Discharge, Battery Type VRLA