

DESIGN SYSTEM HYBRID ELECTRICAL GENERATING SOLAR POWER  
(PLTS) AND DIESEL POWER GENERATING ELECTRICAL (PLTD) WITH  
OPTIMIZE BATTERY WORK IN CHARGE-DISCHARGE (CDC) TO MAINTAIN  
CONTINUITY POWER SUPPLY IN BTS REMOTE AREA

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**ABSTRACT**

Continuity power in BTS remote areas became a separate issue for providers of telecommunications services. The electric power supply available on the current system (existing) using diesel (PLTD), the existing system has a problem in keeping continuity electrical power to the load, it is because enough fuel distribution and relatively costly step and the genset maintenance/ trouble, which takes a long time.

Overcoming the problems of continuity of electrical power and efficiently, it needs a combination of three power supply (Hybrid System) : Solarcell System, Generator system and optimize battery while discharge by assigning catu southwestern solarcell as catu primary resource, as the depositary battery electric charge and backup power supply catu second and third generator as backups power supply work at the moment all catu southwestern experiencing problems.

The changing system existing one ( catu resources ) to optimize hybrid with a system design work on a system can keep batteries charge-discharge continuity catu power to 100 % loads continuous telecommunication network work that can optimally, failure catu resources supply could be possible if predial control switching less correct.  
( *charts system charge-discharge* )

**Keywords** : Hybrid-System, Solarcell, Bateray, Genset, Charge-dischargesystem, BTS (Base Transceiver Station), mains supply, backup supply.