

## Kongres Container

# Solar communication base station energy storage system settings



**2MW / 5MWh**  
**Customizable**



## Overview

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Base station operators deploy a large number of distributed photovoltaics to solve the problems of high energy consumption and high electricity costs of 5G base stations. In this study, the idle space of the.

What is a green base station system?

On the other hand, considering the energy use, the concept of a green base station system is proposed, which uses renewable energy or hybrid power to provide energy for the base station system, allowing energy flow between base stations and smart grid , , , .

Do 5G base stations use intelligent photovoltaic storage systems?

Therefore, 5G macro and micro base stations use intelligent photovoltaic storage systems to form a source-load-storage integrated microgrid, which is an effective solution to the energy consumption problem of 5G base stations and promotes energy transformation.

Why do base station operators use distributed photovoltaics?

Base station operators deploy a large number of distributed photovoltaics to solve the problems of high energy consumption and high electricity costs of 5G base stations.

What is a typical base station power consumption model?

In a typical base station power consumption model, the power consumption of the base station is not stable at a particular value but changes with the real-time traffic load . Owing to the behavior of the communication users, the traffic load has the dual characteristics of time and space.

What is the power consumption of a micro base station?

The power consumption of micro base station is mainly basic power consumption. It does not change significantly with the traffic load, and because the micro base station is in the active or dormant state, the power consumption of the  $k$ -th micro base station as in Equation (7).

Why do 5G base stations have a large idle space?

To ensure the stable operation of 5G base stations, communication operators generally configure backup power supplies for macro base stations and approximately 70% of the micro base stations according to the maximum energy demand. Therefore, the battery used for the power backup has a large idle space.

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