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Title: 5g communication base station hybrid energy patent

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Does a 5G base station use hybrid energy?

In this paper, hybrid energy utilization was studied for the base station in a 5G network. To minimize AC power usage from the hybrid energy system and minimize solar energy waste, a Markov decision process (MDP) model was proposed for packet transmission in two practical scenarios.

What is a 5G communication base station?

The 5G communication base station can be regarded as a power consumption system that integrates communication, power, and temperature coupling, which is composed of three major pieces of equipment: the communication system, energy storage system, and temperature control system.

Are 5G base stations energy-saving?

Given the significant increase in electricity consumption in 5G networks, which contradicts the concept of communication operators building green communication networks, the current research focus on 5G base stations is mainly on energy-saving measures and their integration with optimized power grid operation.

How does a 5G network work?

The 5G network is the wireless terminal data; it first sends a signal to the wireless base station side, then sends via the base station to the core network equipment, and is ultimately sent to the destination receiving end.

The rise of 5G communication has transformed the telecom industry for critical applications. With the widespread deployment of 5G base stations comes a significant concern about ...

In the context of 5th-generation (5G) mobile communication technology, deploying indoor small-cell base stations (SBS) to serve visitors has become co...

In today's 5G era, the energy efficiency (EE) of cellular base stations is crucial for sustainable communication. Recognizing this, Mobile Network Operators are actively prioritizing EE for both ...

The present disclosure relates to a 5G or 6G communication system for supporting a higher data transmission rate. In addition, the present disclosure provides a method and a device for reducing ...

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Abstract In this paper, hybrid energy utilization was studied for the base station in a 5G net-work. To minimize AC power usage from the hybrid energy system and minimize solar energy ...

Aiming at this issue, an interactive hybrid control mode between energy storage and the power system under the base station sleep control strategy is delved into in this paper.

With the rapid development of the digital new infrastructure industry, the energy demand for communication base stations in smart grid systems is escalating daily. The country is vigorously ...

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