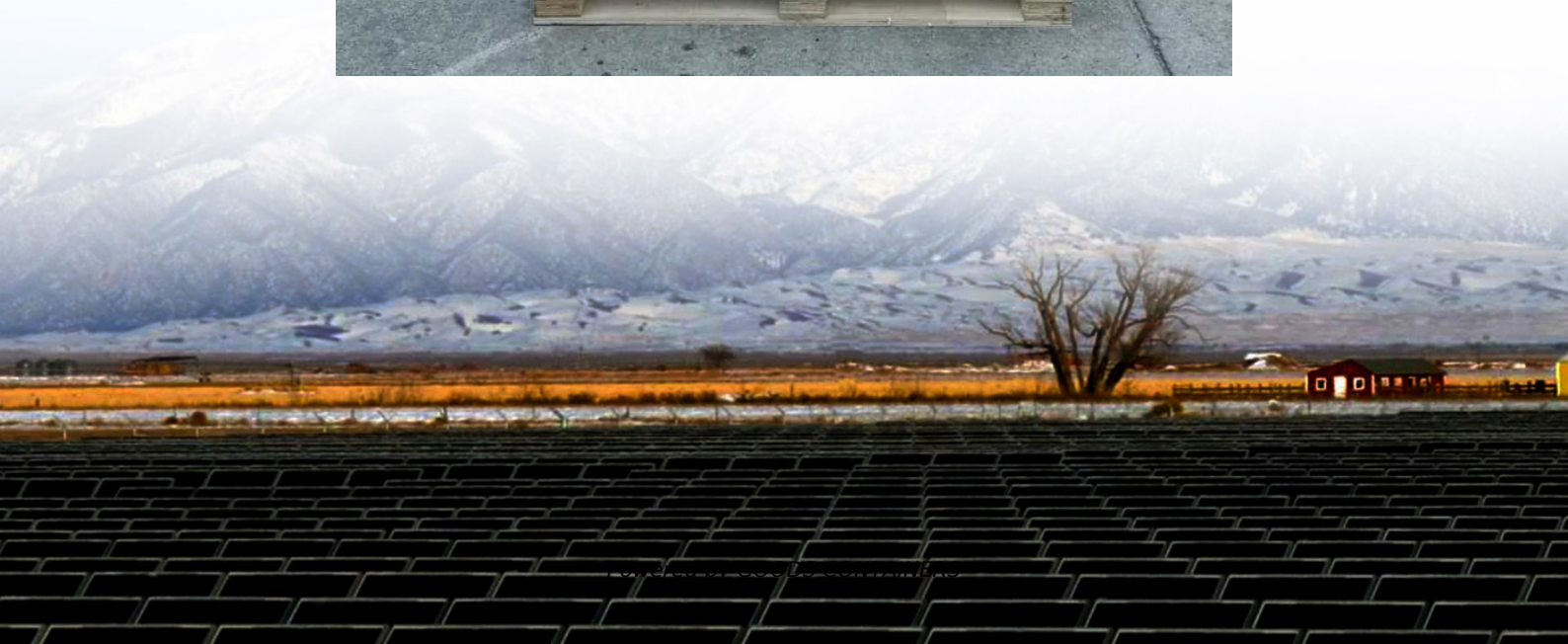


5g base station power reduction method





Overview

Can 3GPP reduce base station energy consumption in 5G NR BS?

Aiming at minimizing the base station (BS) energy consumption under low and medium load scenarios, the 3GPP recently completed a Release 18 study on energy saving techniques for 5G NR BSs . A broad range of techniques was evaluated in terms of the obtained network energy saving (NES) gain and their impact to the user-perceived throughput (UPT).

What is a 5G base station energy consumption prediction model?

According to the energy consumption characteristics of the base station, a 5G base station energy consumption prediction model based on the LSTM network is constructed to provide data support for the subsequent BSES aggregation and collaborative scheduling.

How accurate is 5G base station energy consumption prediction model based on LSTM?

- The 5G base station energy consumption prediction model based on LSTM proposed in this paper takes into account the energy consumption characteristics of 5G base stations. The prediction results have high accuracy and provide data support for the subsequent research on BSES aggregation and optimal scheduling.

What is a 5G base station energy storage device?

During main power failures, the energy storage device provides emergency power for the communication equipment. A set of 5G base station main communication equipment is generally composed of a baseband BBU unit and multiple RF AAU units. Equation 1 serves as the base station load model:



5g base station power reduction method

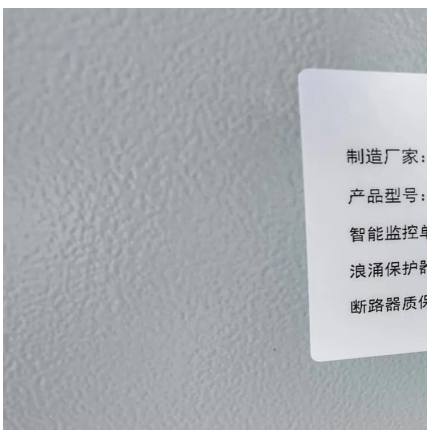


[Power Consumption Reduction by Switching Off Base Stations](#)

This work evaluates the potential for reducing power consumption while maintaining the quality of service in a network under low utilization. For this, the Vienna fifth generation (5G) system ...

[Coordinated scheduling of 5G base station energy storage ...](#)

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[Final draft of deliverable D.WG3-02-Smart Energy Saving ...](#)

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