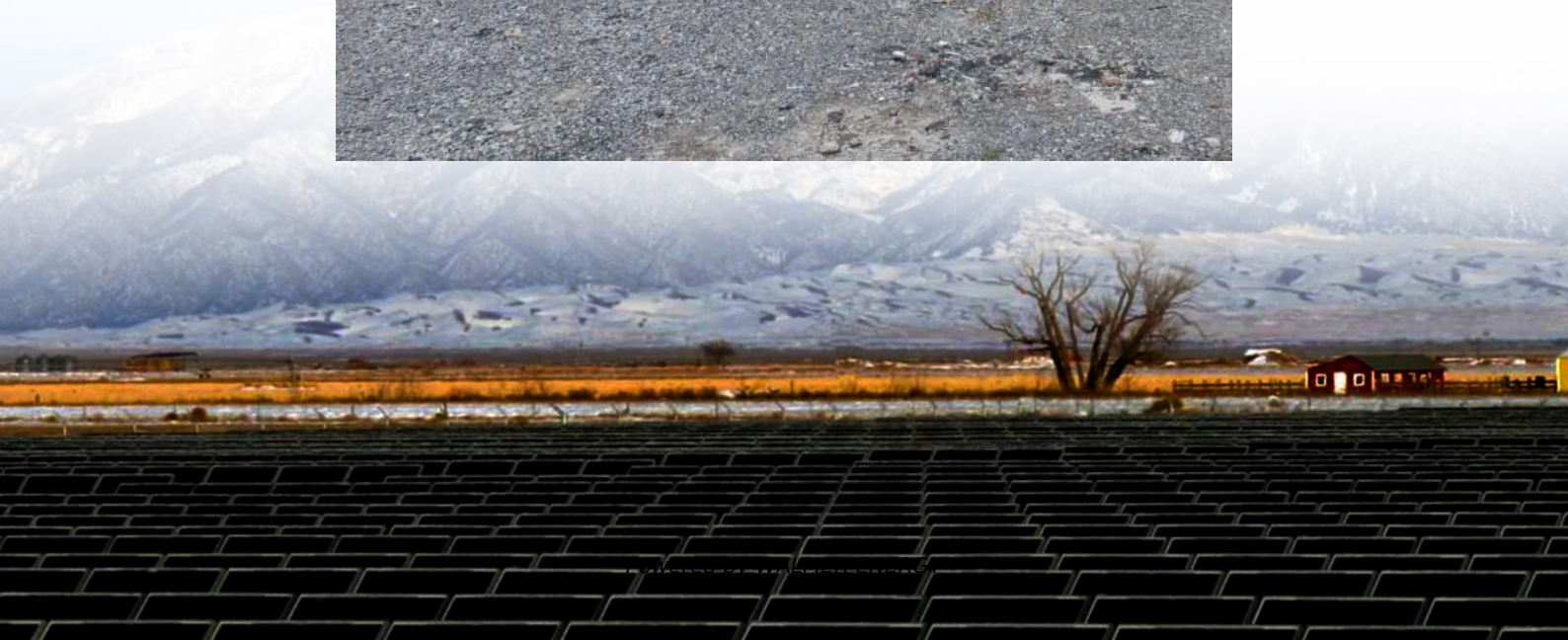


Communication Green Base Station Power Generation Incentive Measures





Overview

Are green cellular base stations sustainable?

This study presents an overview of sustainable and green cellular base stations (BSs), which account for most of the energy consumed in cellular networks. We review the architecture of the BS and the power consumption model, and then summarize the trends in green cellular network research over the past decade.

How can a communication base station reduce energy consumption?

Strategies such as applying solar energy generation facilities in base stations to replace part of the grid electricity or implementing active deep sleep in communication base stations to optimize energy management 7,8,9,10 have been applied to reduce the use of grid-supplied energy and lower the operating costs of communication systems.

Can low-carbon communication base stations improve local energy use?

Therefore, low-carbon upgrades to communication base stations can effectively improve the economics of local energy use while reducing local environmental pollution and gaining public health benefits. For this research, we recommend further in-depth exploration in three areas for the future.

How much energy does a communication base station use a day?

A small-scale communication base station communication antenna with an average power of 2 kW can consume up to 48 kWh per day. 4,5,6 Therefore, the low-carbon upgrade of communication base stations and systems is at the core of the telecommunications industry's energy use issues.



Communication Green Base Station Power Generation Incentive Mea

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