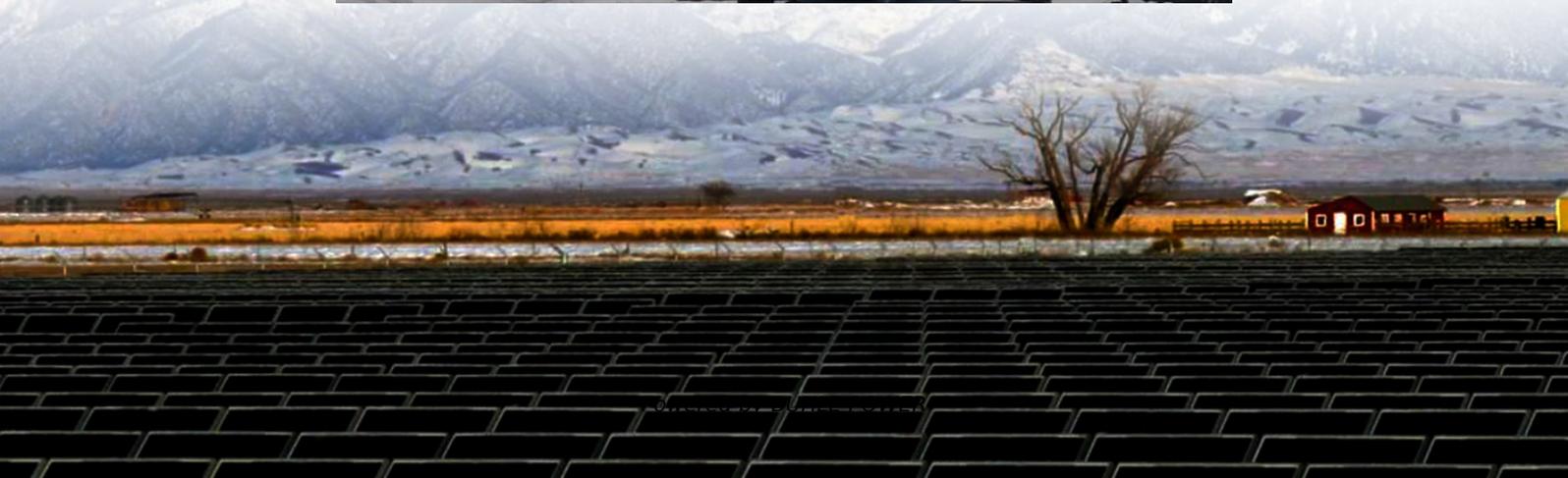
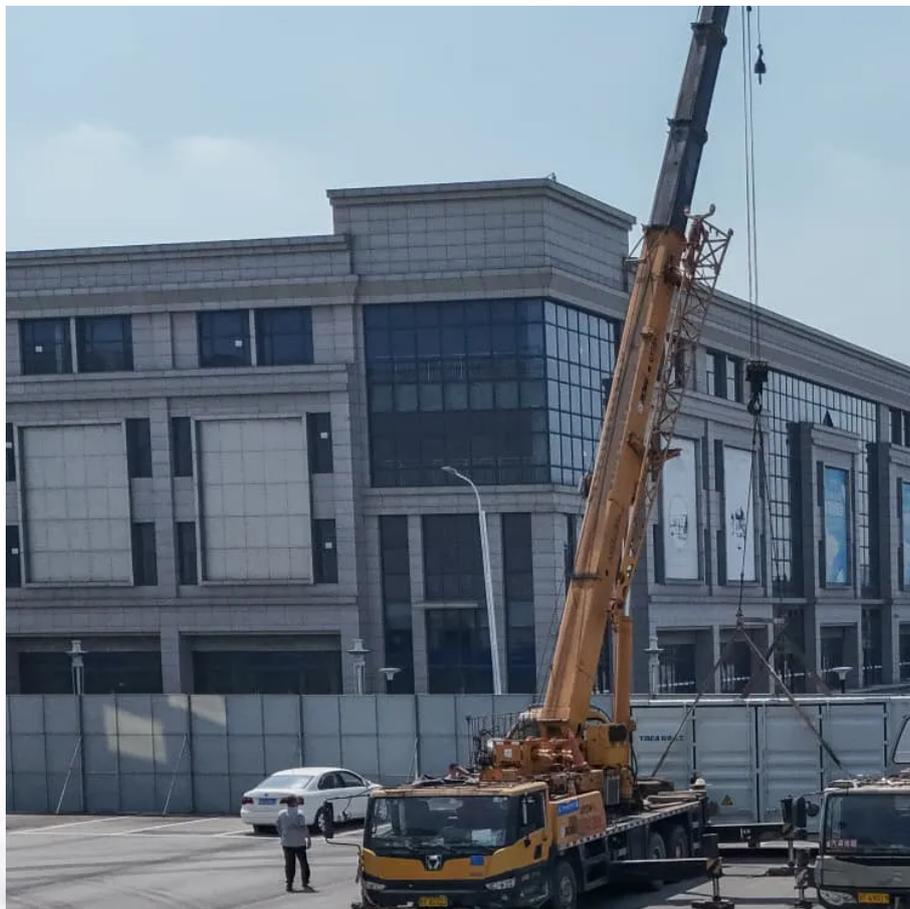


How to solve the power problem when the base station is too far away





Overview

How to reduce power-intensive base stations?

To address the issue of power-intensive base stations, proposed a combined approach involving base station sleep and spectrum allocation. This approach aims to discover the most efficient operating state and spectrum allocation for SBS to minimize power consumption and network disturbance.

How to reduce the energy consumption of a base station?

So when the inter-cell distance is too large, it is necessary to increase the distance between cells, thus reducing the power consumption of the base station. In the actual network, in order to reduce the energy loss caused by frequent switching, the following two methods can usually be used: increase the distance between cells.

Why does a base station lose a lot of power?

Because switching is a continuous process and the base station is a device that works periodically, the switching loss accounts for a large proportion of the total power consumption of the base station.

How to receive the same power level at a base station?

To receive the same power level at the base station, the mobiles those are closer to the base station should transmit less power than the mobiles which are far away from the mobile base station. In the figure given below, there are two mobile cells A and B. A is closer to the base station and B is far from the base station.



How to solve the power problem when the base station is too far away



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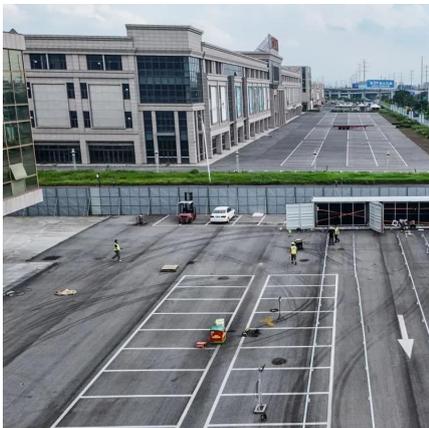


CDMA

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CDMA

Reverse Link Power Control
Forward Link Power Control
Effect of Power Control
By transmission power control, the user can obtain a constant communication environment regardless of the location. The user who is far from the base station sends a higher transmission power than the user who is nearer to the base station. Also by this transmission power control, you can reduce the effects of fading. This means that the variation
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