

Sudan solar off-grid power generation system





Overview

This project, which includes high-capacity energy storage equipment and advanced solar inverters, aims to provide the client with a highly reliable, low-energy-consumption power system, addressing local grid instability and utility power unavailability. Can solar energy be used in Sudan?

Research and projects on solar energy in Sudan have primarily concentrated on solar PV systems, with relatively limited focus on solar thermal energy. Nevertheless, there are some studies that have explored power generation using CSP technologies.

What is the power grid in Sudan?

Sudan's interconnected power grid network consists of different types of power generation stations (hydropower and thermal power plants), power substations, and transmission lines, mainly of the 220 kV and 500 kV lines, as shown in Fig. 7 . Currently, Sudan has three grid regions.

How much solar power will Sudan have by 2035?

Plans are underway to deploy 1200 solar pumps in West and North Kordofan. By 2035, the government also plans to establish 190 MW of solar PV home systems, 400 MW of solar pumping, 250 MW of rooftop PV systems, and 27 MW of PV-diesel hybrid systems. In wind energy, Sudan aims to achieve a total installed capacity of 1550 MW by 2035.

What are the barriers to solar energy development in Sudan?

In the case of Sudan, technology and financing of solar energy projects are still the two big barriers to solar energy development in general. Other barriers include : High economic risk of CSP technologies and lack of public/private investment. High market concentration impeding new stakeholder entry.



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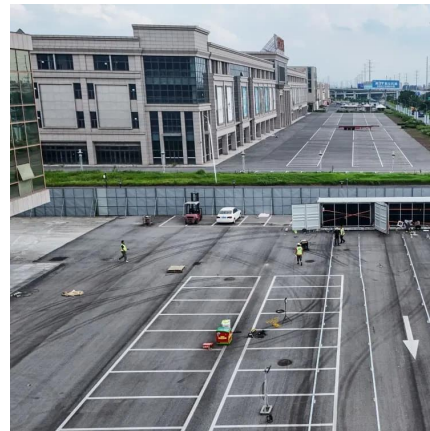
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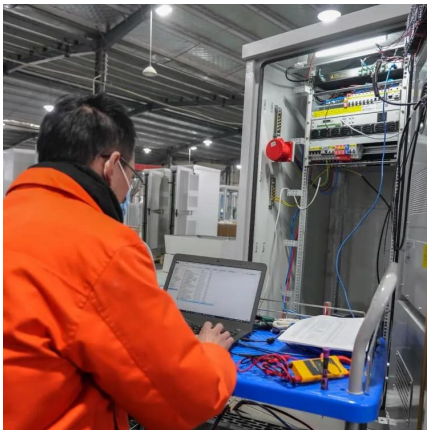
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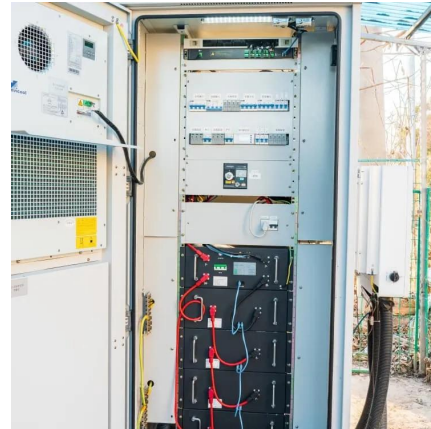
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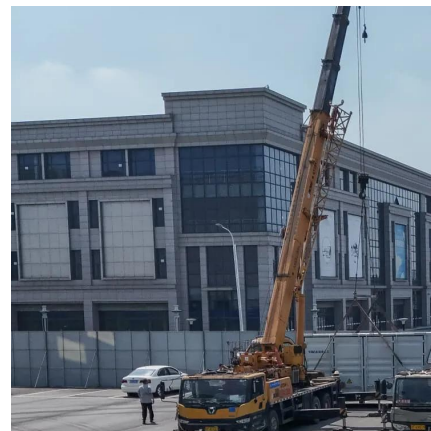


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