



Solar power on Khartoum





Overview

This analysis provides a detailed investment framework for establishing a 20- to 50-megawatt (MW) solar module production facility in Khartoum.

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Global Solar Power Tracker, a Global Energy Monitor project. Khartoum Solar Power Project is a shelved solar photovoltaic (PV) farm in Khartoum, Sudan. Read more about Solar capacity ratings. Loading map. To access additional data, including an interactive map of global solar farms, a.

toum - the capital of Sudan, suffer from frequent power outage due to insufficient power capacity. However, the electricity demand in that city is expected to increase by more than 30% from 2020 to 2030. This paper investigates the potential for widescale grid connected residential rooftop solar PV.

Khartoum, Sudan, with its latitude of 15.5006544 and longitude of 32.5598994, is a highly suitable location for solar power generation throughout the year. The average energy production per day for each kilowatt (kW) of installed solar capacity varies by season: 7.17 kWh/day in summer, 6.84 kWh/day.

Since the early days of the war between the Sudanese Armed Forces and the Rapid Support Forces (RSF), which erupted in mid-April 2023, Sudan has lost around 1,000 megawatts of power generation due to the massive destruction of the Bahri and Garri thermal power stations. These stations went offline.

What is Watts Up Africa?

by Jacques | Jul 1, 2025 A solar renewable energy project with a capacity of 10 MW. Located in Khartoum, Sudan. Current status: shelved - inferred 2 y. WattsUp © 2025. Data Privacy Notices .

This analysis provides a detailed investment framework for establishing a 20- to 50-megawatt (MW) solar module production facility in Khartoum. It breaks down the primary costs—from land acquisition to operational expenses—offering a concrete financial model for professionals seeking to navigate. Is Khartoum a good



place to invest in solar energy?

The capital, Khartoum, has also garnered significant attention for future solar energy projects due to its high solar potential and its status as the city with the highest urbanization rate. Ismail and Hashim observed that a 5-kW PV solar system installed in a residential home in Khartoum could generate 20.71 MWh annually.

Will solar power meet Khartoum's electricity demand by 2030?

Ahmed et al. projected that installing 4-kW rooftop PV systems in 420500 homes could meet the city's entire electricity demand by 2030. Taha designed a 25-kW solar-powered farm to meet the annual demand for 66,000 kg of Yellow Potato and 79200 heads of Rocket Arugula for Al-Anfal Supermarket in Khartoum.

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.

How much energy does Khartoum produce a year?

The capital city, Khartoum, produces approximately 7 million tons of combustible and putrescible (wet organic) waste annually, with the potential to generate 64212 TJ of energy.



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Renewable Energy in Sudan: Current Status and Future Prospects

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 ...

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[Solar PV Analysis of Khartoum, Sudan](#)

Khartoum's climate is generally mild; temperatures rarely exceed 40°C or drop below 0°C, which creates a favorable environment for solar power generation without significant weather-related ...

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This paper investigates the potential for widescale grid connected residential rooftop solar PV to meet electricity demand ...

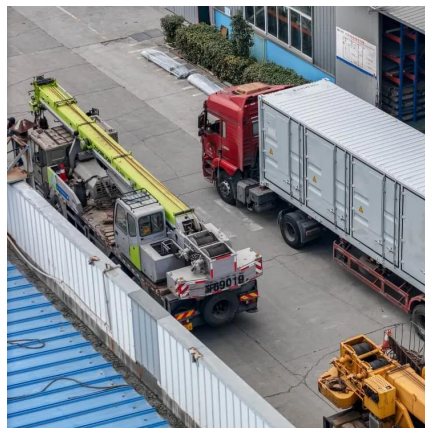
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[Cost to Build a Solar Factory in Khartoum: 20-50 MW Model](#)

Thinking of investing in Sudan's solar market? Get a complete cost breakdown for a 20-50 MW solar module factory in Khartoum, from land to operations.

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Selection of Suitable Sites for Solar Power Plants in Khartoum ...

This study aims to provide a detailed analysis that will aid in the strategic placement of solar power plants. The ultimate goal is to maximize energy production efficiency while minimizing ...

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The potential for rooftop solar photovoltaics to meet future

This paper investigates the potential for widescale grid connected residential rooftop solar PV to meet electricity demand increase in Khartoum by 2030.

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THE POTENTIAL FOR ROOFTOP SOLAR



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distribution of rooftop solar PV in Khartoum. This paper attempts to fill this gap in literature. The aim of this paper is to investigate the potential of widesca. e grid connected rooftop solar PV in ...

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Khartoum Solar Power Project

Khartoum Solar Power Project is a shelved solar photovoltaic (PV) farm in Khartoum, Sudan.

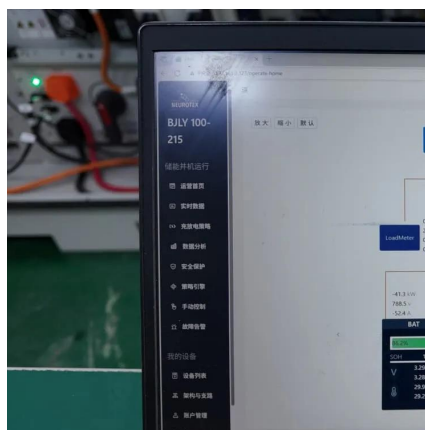
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[Solar Panels: A Lifeline Amid Sudan's Electricity Crisis](#)

Khartoum government spokesperson Al-Tayeb Saad El-Din said the state will rely on solar energy to light streets and government buildings, following the looting of all underground power ...

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