



BUHLE POWER

# How many watts of solar energy are needed in Sudan





## Overview

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Does Sudan have solar power?

While hydropower generates approximately 54.6% of Sudan's electricity, other renewable sources contribute only 0.78% to the national grid. Sudan's hydropower capacity stands at 1907 MW, with plans to add 2197 MW. As a Sunbelt country, Sudan has immense solar energy potential, yet it has only constructed a 10-MW solar PV plant (5 MW on-grid).

How many solar plants are there in Sudan?

The government has identified six additional sites capable of producing a total of 2197 MW, though no significant new installations have been recently initiated. As part of the Sunbelt region, Sudan possesses substantial solar energy potential. However, the grid-connected capacity remains limited to the 5-MW El Fasher solar PV plant.

How much electricity does Sudan use per capita?

Sudan's electricity consumption per capita stands at 0.3 MWh, significantly lower than that of neighboring countries such as Libya (4 MWh/capita) and Egypt (1.6 MWh/capita) (see Figure 5). To address this disparity and reduce reliance on oil, increased adoption of renewable energy sources is imperative.

How much solar radiation does Sudan have?

Sudan possesses an average annual radiation range of 436 to 639 W/m<sup>2</sup> per year, which exceeds the annual global average. The period of solar radiation in the country is between 8.5 and 11 hours per day. There is, furthermore, much unused land available for RE development.



## How many watts of solar energy are needed in Sudan



### [How many watts of solar panels are needed?](#)

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Understanding the fundamental principles guiding solar energy generation serves as the ...

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Sudan relies heavily on refined petroleum products for electricity generation, excluding hydropower, contributing to environmental degradation through ...

### [HOW MUCH SOLAR RADIATION DOES SUDAN HAVE?](#)

How many watts of solar energy are needed in Sudan The country has one of the highest solar radiation rates in the world, with the potential to generate up to 15 GW of solar energy." For ...



## Renewable Energy in Sudan: Current Status and Future ...

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## Sudan

3 days ago · Most of Sudan's electricity generation comes from hydropower, and more than half of the Eastern African region's total oil-based capacity is located in the country. Sudan is also ...



## The Complete Off Grid Solar System Sizing ...

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## Solar PV potential in Sudan by location

Each year Sudan is generating 3 Watts from solar PV per capita (Sudan ranks 84th in the world for solar PV Watts generated per capita). [source] ...



## **ENERGY PROFILE Sudan**

Indicators of renewable resource potential Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity ...



## How Many Solar Panels Do I Need? 2025 ...

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## **UTILITY**

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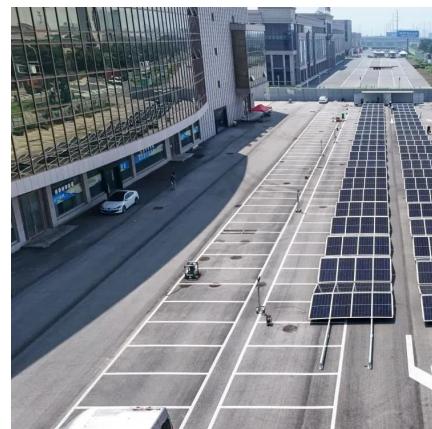
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## [How Many Solar Panels Do I Need To Power a ...](#)

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## [Introducing the "Guide to Solar Energy in Sudan"](#)

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