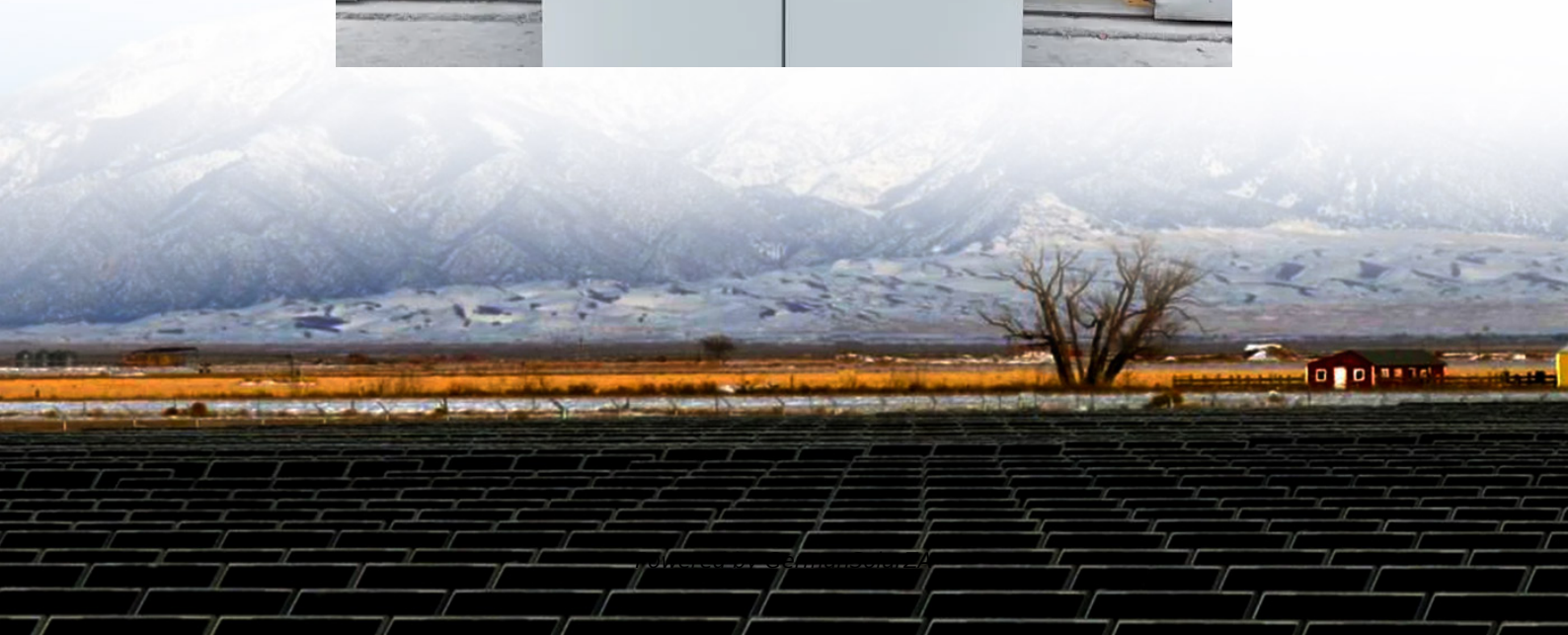


How to store energy from solar power generation in Khartoum





Overview

Can solar energy be used in Sudan?

Harvesting solar energy using CSP technologies in Sudan will not only increase the electricity generation capacity but also guarantees energy security and sustainability through creating and implementing energy mix plans in line with the UNs' SDGs for 2030.

Are solar power towers and parabolic troughs 'hypothetically relocated' in Sudan?

The study used techno-economic analysis for two of the most mature CSP technologies – solar power tower (SPT) and parabolic trough (PT) technology – to produce electricity in Sudan. Two commercial CSP plants, namely GEMASOLAR and ANDASOL-1, have been “hypothetically” relocated in six Sudanese zones using the system advisor model (SAM).

Which solar power tower system is best for Sudan?

Relocating GEMASOLAR and ANDASOL-1 in Sudan showed better outputs than in Spain. The solar power tower system is the most suitable for Sudan's environment. The LCOE at zone1 for the 50 MWe solar tower plant is 0.086 USD/kWh. A 5 MWe solar tower pilot plant at zone1 with optimum specifications is proposed.

How has the electricity sector grown in Sudan?

The electricity sector in Sudan had grown in terms of installed capacity and generation. Electricity generation had grown at an average annual growth rate of 13% (between 2008 and 2018), and the total electricity generated in 2019 had reached 16.3 TWh [, ,].



How to store energy from solar power generation in Khartoum



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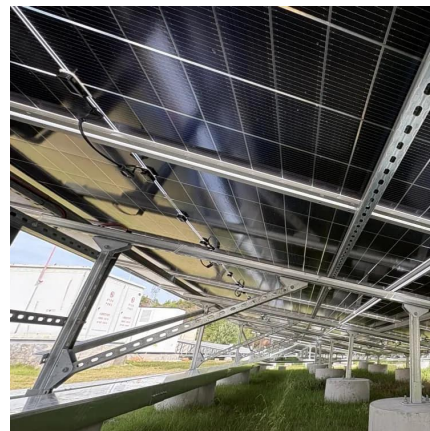
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