

SolarInnovate Energy Solutions

Distributed power generation of communication base stations in South Sudan



Overview

What is the grid-based electricity situation in South Sudan?

At present, the grid-based electricity situation in South Sudan is characterized by routine power outages and lack of efficiency in the distribution system . In fact, in 2020, 580 GWh or nearly 100 % of electricity was produced from oil and gas, and just 1 GWh from renewable sources .

Does South Sudan need a 33 kV distribution network?

South Sudan Electricity Corporation plans to install a 33 kV distribution network to increase network capacity, allowing it to supply more customers, including those located far from generation centers, while also reducing network losses.

Does South Sudan have a decentralized power system?

Most decentralized power systems in South Sudan are operated by private companies, NGOs and humanitarian organizations in South Sudan. In assessing the capacity of the off-grid electricity in terms of Megawatt (MW), the kVA rating of the generators and the power factor were taken into consideration.

What is South Sudan's role as a power utility?

Its role as a power utility is expected to intensify as programmes to increase electricity access in South Sudan are implemented. It is proposed under the Electricity Bill 2015 as the regulatory entity for the electricity sector in South Sudan. It would function as the energy regulator whose functions would include the creation of regulations.

Does South Sudan have electricity?

As a result, the majority of the nation's electricity is produced by thermal sources, and supply is only available in a few urban centers, notably the capital Juba, Wau, and Malakal. Compared to neighboring countries, South

Sudan has the lowest access to electricity (% of population) with only 7.7 % as of 2021 .

How many energy companies are there in South Sudan?

There are about fourteen of-grid energy companies in South Sudan, and their services include i) selling solar products, ii) engineer-ing, procurement, and construction (EPC), iii) indepen-dent power production (IPPs) and iv) developing mini-grids.

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Strategic options for building a new electricity grid in South Sudan

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AfDB grants South Sudan US\$26 million for Juba electricity ...

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