

**SolarInnovate Energy Solutions**

# **South Sudan Solar Power Generation System**



## Overview

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A public-private partnership in South Sudan has launched the country's first major solar power plant and Battery Energy Storage System (BESS) in the capital Juba, where it is expected to provide electricity to thousands of homes. Does South Sudan have a large-scale solar power project?

South Sudan has taken a significant step toward renewable energy with the launch of its first large-scale solar power project. The Ezra Group, a prominent business conglomerate, has successfully developed and financed a 20-megawatt (MW) solar power plant, complemented by a 14-megawatt-hour (MWh) Battery Energy Storage System (BESS).

Why should South Sudan invest in solar power?

By investing in solar power and battery storage technology, the country is making a decisive move toward energy independence, economic growth, and a sustainable future for its people. South Sudan has taken a significant step toward renewable energy with the launch of its first large-scale solar power project.

Can solar power solve energy poverty in South Sudan?

Because South Sudan is still in the beginning stages of their infrastructural development, there is a rare opportunity to move forward and address the issue of energy poverty by building sustainable models of electrification, like solar power, without having to dismantle an already existing energy foundation.

How does South Sudan produce energy?

Most of the country's current energy production comes from generators that burn imported diesel, a costly method both economically and environmentally. According to the World Bank, only 8.4% of the population had reliable access to power and electricity in 2022, leaving the door wide open to produce much-needed renewable energy in South Sudan.

Does South Sudan have wind power?

Besides, the country is rich in forest and other woody biomass covering over 70 million hectares of land surface. The actual wind power generation potential in South Sudan is not yet thoroughly studied. However, some preliminary studies show a very low wind speed of about 2.5m/s in most parts of the country.

How do solar irrigation systems work in South Sudan?

These solar pumps harness the sun to power sensor-driven drip irrigation throughout villages in South Sudan, fostering a sustainable means of agricultural production while fighting increasingly common effects of climate change such as unpredictable floods and droughts, according to the Rainmaker Enterprise.

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