

West Africa Renewable Energy - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The West Africa Renewable Energy Market is expected to register a CAGR of 2% during the forecast period.

COVID-19 negatively impacted the market in 2020. Currently, the market has reached pre-pandemic levels.

Key Highlights

- Over the long term, factors such as increased environmental awareness and regulations and decreased cost per kilowatt of electricity generated are expected to boost the market.
- On the other hand, the high price of renewable energy relative to fossil fuels is expected to restrain the market.
- However, new models of solar cells made of a thin film technology that uses narrow coatings of cadmium telluride in solar cells, which have higher efficiency and lower cost, may prove to be an opportunity in the sector.
- Nigeria is expected to have the largest share of renewable energy in the region due to the government's focus on decreasing dependence on imported fossil fuels.

West Africa Renewable Energy Market Trends

Hydropower Segment to Dominate the Market

- The hydropower segment is expected to dominate the market as dams have been built across West Africa. Most of the renewable hydro capacity has been constructed in Nigeria and Ghana.

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- The hydropower segment includes different-sized reservoir dams that can be used to provide renewable energy. Hydropower is the most used renewable energy in West Africa.
- In November 2022, the Nigerian government approved the construction of a 1,650 MW hydropower plant at USD 3 billion. The project would be funded under a public-private partnership arrangement and located in the north-central state of Benue, Laolu Akande.
- In September 2021, the Souapiti hydropower plant in Guinea began commercial operation. The facility will produce 1,900 GWh of clean energy per year and increase production of the downstream Kaleta hydro scheme to 1,000 GWh/per year.
- Hydropower (including mixed plants) constitute almost 94.2% of the total renewable energy generated in the region, with nearly 5,513 MW of power being produced, in 2021.
- Therefore, vast reservoirs of dams providing renewable energy are expected to continue to dominate the market due to their large size relative to other renewable energy and an increase in investments.

Nigeria to Dominate the Market

- Nigeria is expected to have the largest share of renewable energy among the nations in the forecast period due to its significant consumption of electricity and government focus on decreasing dependence on imported fossil fuel.
- Nigeria is the most populous nation in West Africa. The country's high demand for electricity due to the high population is expected to promote growth in renewable energy. However, the high cost of renewable energy causes constraints to its growth.
- Most of the installed renewable capacity in the country comes from Hydropower projects. In 2021, Hydropower constituted 2111 MW of installed capacity, which is approximately 98% of all the renewable energy in the country. However, this scenario is expected to change during the forecast period owing to increasing investment in solar energy.
- In September 2022, Sterling & Wilson Renewable Energy bagged a USD 1.5-billion order from the government of Nigeria, along with its consortium partner Sun Africa, for setting up solar PV power plants aggregating 961 MW at five locations along with battery energy storage systems with a total installed capacity of 455 MW.
- Hence, Nigeria is expected to dominate the market due to its large size and increased renewable energy installed capacity in the forecast period.

West Africa Renewable Energy Industry Overview

West Africa Renewable Energy Market is moderately consolidated. Some of the key players in this market are (not in particular order) Power Construction Corporation of China Ltd, Energicity Corp, Wartsila Oyj Abp, China Civil Engineering Construction Corporation, and REDAVIA GmbH.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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