Guinea-Bissau

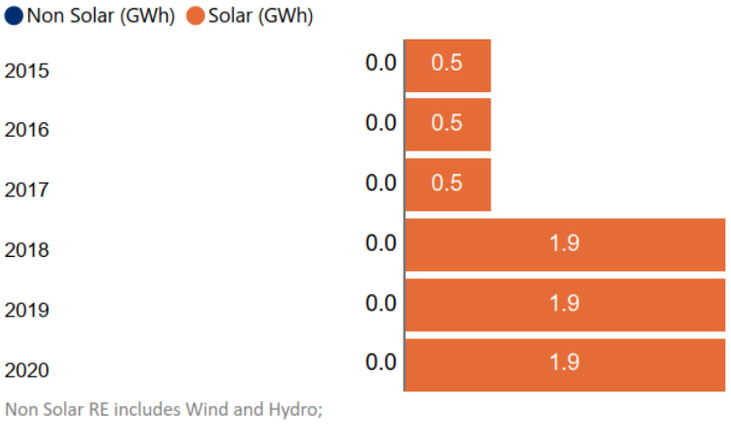
Africa

Ease of doing Solar classification

Potential

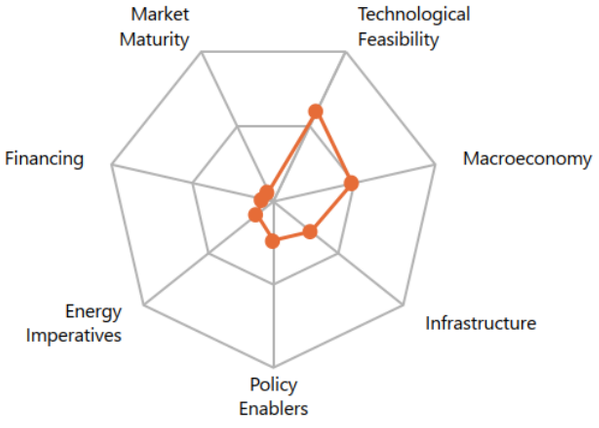
Electricity Consumption in kWh/capita (2020)	Average PVout in kWh/kWp (2020)	Cumulative Solar Capacity in MW (2021)
40.7	4.5	1.2
Getting Electricity Score (2020)	**NDC Target by 2030 in % (base year 2019)**	**Human Development Index (2021)**
29.7	30.0	0.5

Renewable Energy Generation by Source

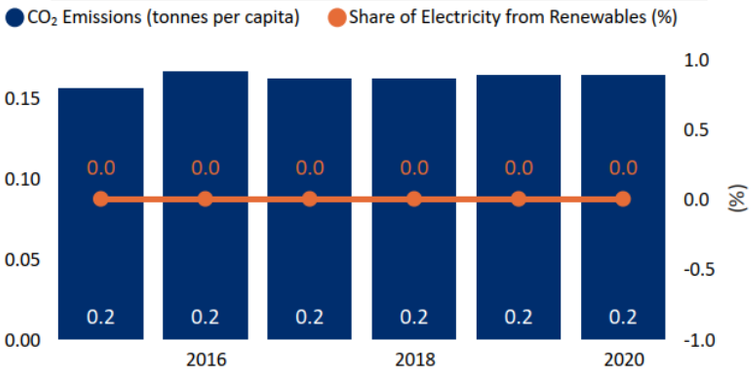


Non Solar RE includes Wind and Hydro;

Performance against 7 Drivers



CO_2 Emissions vs Electricity share from Renewables



Fiscal Incentives & Public Financing for Renewables (2020)

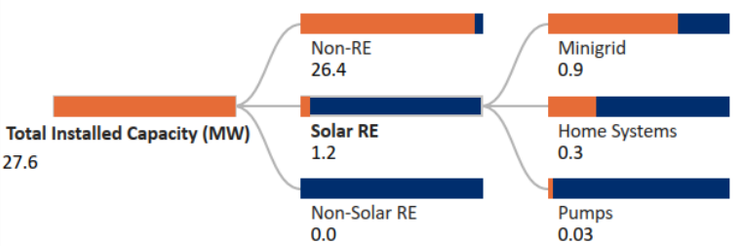
Investment or production tax credits?

No

Public investment, loans, grants, capital subsidies or rebates?

No

Installed Capacity by Source (2019)



Non-Solar RE: Wind, Hydro, Biomass, Geothermal & Marine;

Non-RE: Coal, Natural Gas, Nuclear, Oil, etc.;

Other Solar: Utility Scale Solar, Rooftop etc.;

Data not available for other Solar RE segments;

Support for Renewables (2020)

Feed-in-Tariffs for renewable energy supply to the grid?

No

Net metering/Gross metering policies and regulations?

No

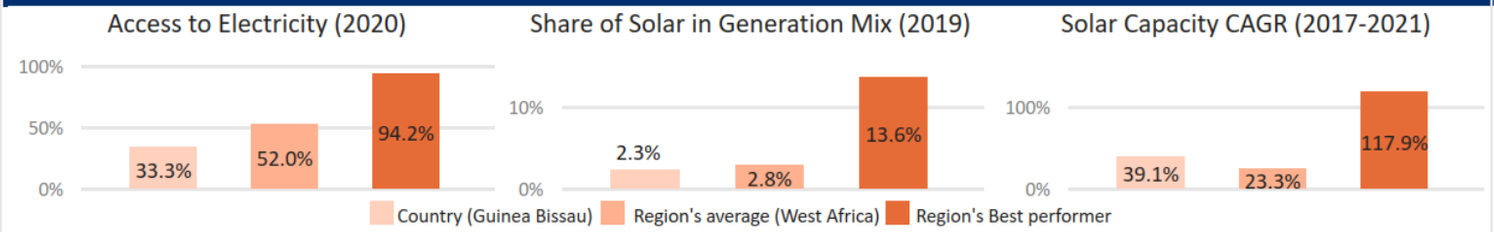
Renewable Energy Certificates?

No

Renewable Purchase Obligation?

No

Country's regional performance and characteristics



Areas of Strength → Macroeconomy; Technological Feasibility

Areas of Improvement → Financing; Market Maturity

Key Insights

Drivers	Insights
Macro-economy	•Guinea-Bissau is a low-income country with a GDP per capita (PPP) of USD 2,012 in 2021. [1, 2] •GDP (Real) grew at an annual rate of 3.8% in 2021 and it is estimated to increase by 3.8% in 2022. [3] •The inflation rate in the country increased to 3.3% in 2021 from 1.5% levels in 2020 driven by higher pandemic-related food and fuel prices. [4] •The fiscal deficit in the country narrowed down to 5.6% of GDP in 2021 from 9.8% levels in 2020. [4]
Policy enablers	•The Ministry of Energy and Industry is responsible for implementing and regulating policies in the energy sector. [5] •The National Renewable Energy Action Plan (NREAP) serves as a RE plan and policy for Guinea-Bissau. [6] •Solar Panels are exempted from VAT while other components (inverters, batteries, controllers, etc.) of a solar kit are not exempted. [7]
Technological Feasibility	•Guinea-Bissau receives very high levels of solar irradiation of 5.6 kWh/m^2/day and a specific yield of 4.5 kWh/kWp/day indicating a very strong technical feasibility for solar in the country. [8] •Guinea-Bissau is planning to construct a 20 MW solar PV power plant near Bissau and two 1 MW hybrid mini-grid systems in Gabu and Cachungo. [9] •By 2030 around 9% of the population will be served by renewable energy-based hybrid mini-grids and stand-alone systems. [9]
Market Maturity	•33.3% population in Guinea-Bissau had access to electricity as of 2020. [10] •The National Electricity and Water Corporation (EAGB) is responsible for generation, transmission, and distribution of electricity in the country. [5] •Guinea-Bissau is a member country of the Western African Power Pool (WAPP). Its grid is interconnected with its neighbours and is an important reason for improving the reliability of the power supply in the country. [5]
Infrastructure	•The 225 kV Guinea-Mali Electricity Interconnection Project entails the construction of a double-circuit transmission line over 714 km and associated substations between the town of N'zérékoré in Guinea and Sanankoroba (Bamako) in Mali. [11] •Guinea-Mali Electricity Interconnection Project will interconnect Zone A countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Nigeria, Niger, and Togo) to Zone B countries (The Gambia, Guinea, Guinea-Bissau, Mali, Liberia, Senegal, and Sierra Leone) of the WAPP. [11]
Financing	•Guinea-Bissau Sustainable Energy Investment plan aims to attract USD 700 Mn investments to bring in energy transformations by 2030. [12] •In 2018, the AfDB sanctioned USD 20.2 Mn to the Guinea-Bissau government intending to improve the reliability of power infrastructure in the country. [13]
Energy Imperatives	•The total installed capacity in the country was 27.6 MW in 2019. [14] •The total installed capacity of Solar PV witnessed a CAGR of 39.1% between 2017-2021 reaching 1.169 MW in 2021 from 0.312 MW levels in 2017. [15] •In 2020, the per capita electricity consumption stood at 0.04 MWh which is significantly lower in comparison to the global average of 3.31 MWh. [16] •The price of electricity in the country was 24.9 US Cents/kWh as of 2019. [17]