



Jamaica

Latin America & Caribbean

Ease of doing Solar classification



Influencer

Electricity Consumption in kWh/capita (2020)

1565.7

Average PVout in kWh/kWp/day (2020)

4.4

Cumulative Solar Capacity in MW (2021)

92.5

Getting Electricity Score (2020)

65.0

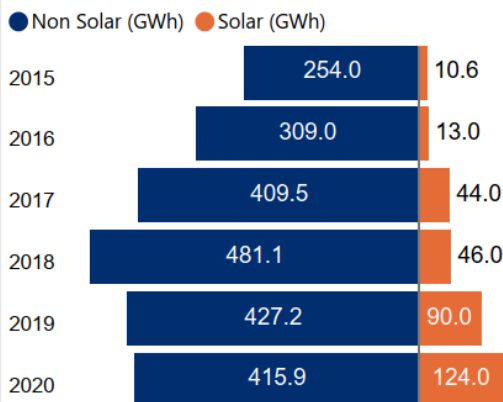
NDC Target by 2030 in % (base year 2005)

25.4

Human Development Index (2021)

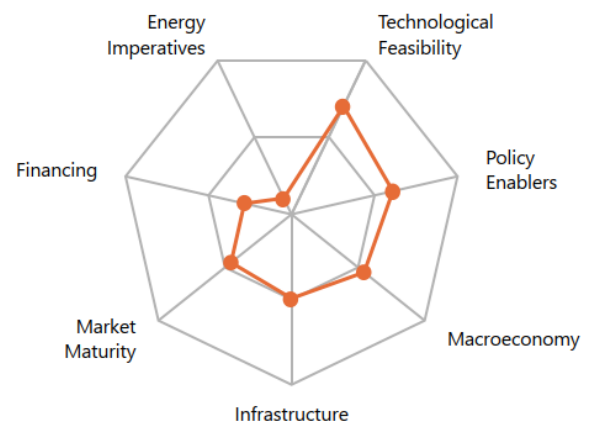
0.7

Renewable Energy Generation by Source

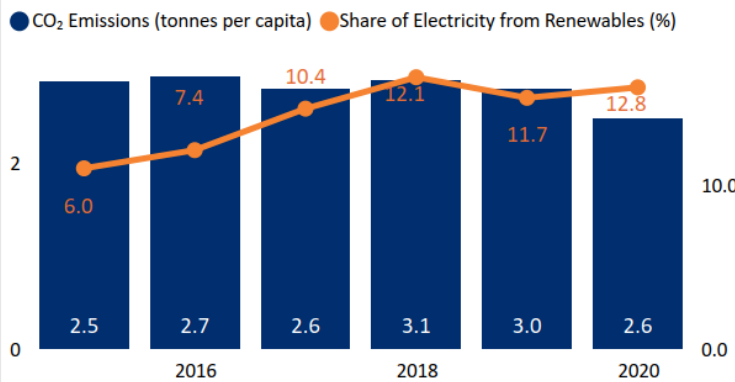


Non Solar RE includes Wind and Hydro;

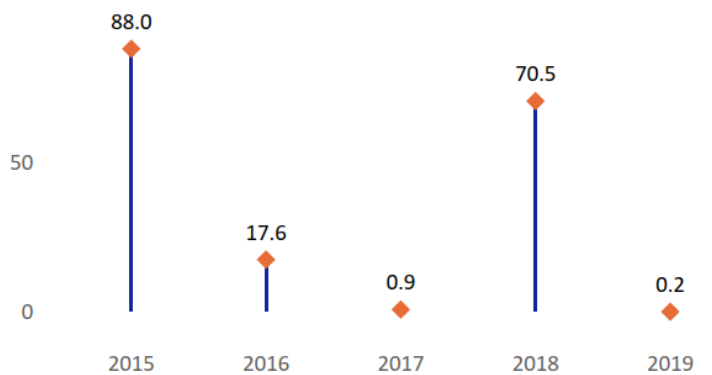
Performance against 7 Drivers



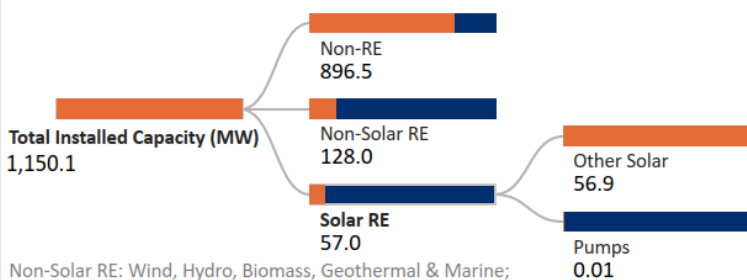
CO₂ Emissions vs Electricity share from Renewables



International Finance received for Clean Energy (Million US Dollars)



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?

Yes

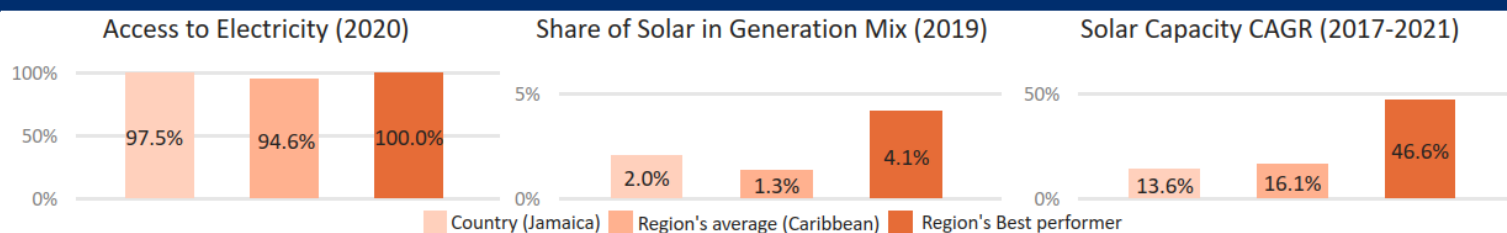
Renewable Energy Certificates?

No

Renewable Purchase Obligation?

No

Country's regional performance and characteristics



Areas of Strength

Policy Enablers
Technological Feasibility

Areas of Improvement

Energy Imperatives
Financing

Key Insights

Drivers

Insights



Macro-economy

- Jamaica is an upper middle-income country with a GDP per capita (PPP) of USD 10,543 in 2021.^{1,2}
- Due to COVID-19 Pandemic, the GDP (Real) contracted by 10.0% in 2020. However, in 2021 it has bounced back recording an annual growth rate of 4.6%.¹
- The inflation rate (CPI) of the country has increased to 5.9% in 2021 from 5.2% levels in 2020.¹
- The general government gross debt to GDP has eased to 92.3% in 2021 from 108.1% levels in 2020.¹



Policy enablers

- By 2030, the country aims to achieve a 50% share of RE based electricity in the generation mix.⁸
- To promote the development of RE in the country several incentives such as tax exemptions, interconnection standards, net metering and green public procurement have been implemented in the country.⁶



Technological Feasibility

- Jamaica receives high levels of solar irradiation (GHI) of 5.2 kWh/m²/day and specific yield 4.4 kWh/kWp/day indicating high technical feasibility for solar in the country.³
- In 2021, 10.7% of the country's power demand was met through RE sources (excluding large hydro).⁴
- The country is highly dependent on imported fossil fuels for generation of electricity thus making it susceptible to fluctuating oil prices.⁴



Market Maturity

- 97.5% of the population in Jamaica had access to electricity since 2020.²
- The Office of Utilities Regulation (OUR) regulates the energy sector in the country.⁶
- Jamaica Public Services Company Limited is responsible for the generation, transmission, and distribution of electricity in the country.⁷



Infrastructure

- The national grid operates at a frequency of 50 Hz with voltage levels ranging from 110 V to 69 kV.⁷
- For Jamaica, challenges associated with RE variability can be minimized by upgrading the grid infrastructure with higher-voltage transmission lines and better operating & forecasting.¹⁰



Financing

- The Development Bank of Jamaica (DBJ) maintains many credit lines to enable private banks to provide funding for RE projects.⁷
- The Inter-American Development Bank in 2021 has provided USD 24.3 Mn loan to Soleco Energy Limited for development of solar PV power plant in the country.⁹



Energy Imperatives

- In 2020, Jamaica's per capita consumption stood at 1.36 MWh which is relatively lower in comparison to the global average of 3.31 MWh.⁴
- The total installed capacity of Solar PV witnessed a CAGR of 13.6% reaching 92.5 MW in 2021 from 55.5 MW levels in 2017.⁴
- The peak demand for electricity in the country has remained constant at 4.02 TWh in 2021 and 2020.⁴
- In 2021, the total installed capacity in the country stood at 1.26 GW with a significant share coming from oil (47.6%), gas (32.5%) followed by wind (7.9%) and solar (7.1%).⁴