



Guyana

Latin America & Caribbean

Ease of doing Solar classification



Influencer

Electricity Consumption in kWh/capita (2020)

1398.5

Average PVout in kWh/kWp/day (2020)

4.2

Cumulative Solar Capacity in MW (2021)

8.4

Getting Electricity Score (2020)

45.9

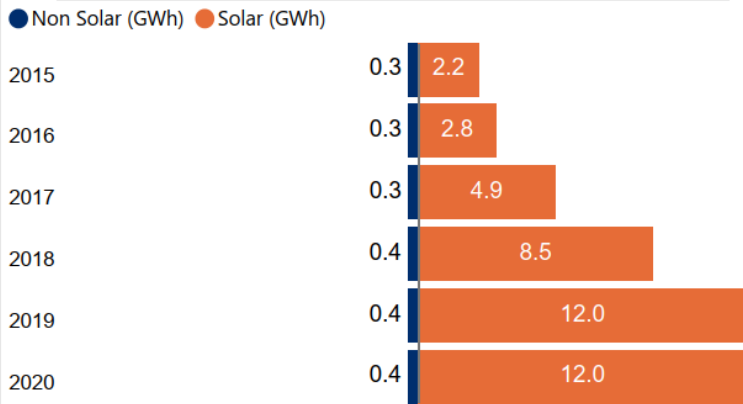
NDC Target by 2030 in % (base year 2005)

Not available

Human Development Index (2021)

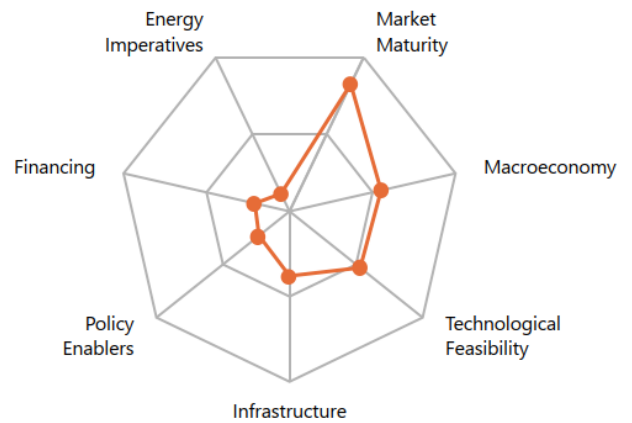
0.7

Renewable Energy Generation by Source

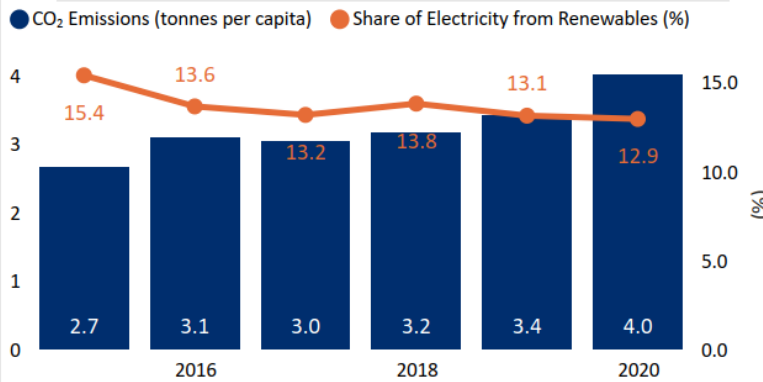


Non Solar RE includes Wind and Hydro;

Performance against 7 Drivers



CO₂ Emissions vs Electricity share from Renewables

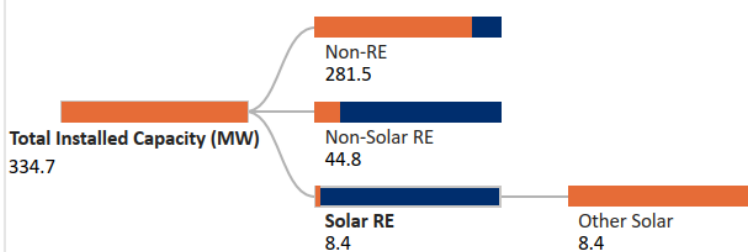


Fiscal Incentives & Public Financing for Renewables (2020)

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)

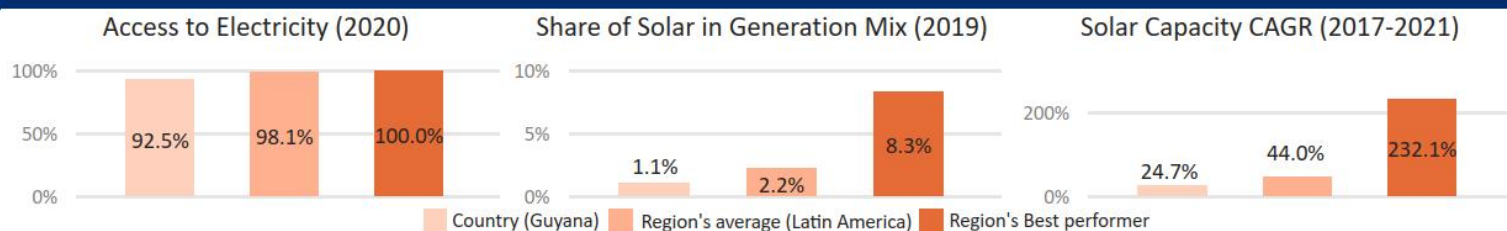
Feed-in-Tariffs for renewable energy supply to the grid?
No

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
Market Maturity

Areas of Improvement

Energy Imperatives
Financing

Key Insights

Drivers

Insights



Macroeconomy

- Guyana is an upper middle-income country with a GDP per capita (PPP) of USD 24,087 in 2021.^{1,2}
- In 2021, the GDP (Real) has increased by 23.8% and it is expected to grow with an annual rate of 57.8% in 2022.¹
- The inflation rate (CPI) of the country has increased to 3.3% in 2021 from 1.2% levels in 2020.¹
- The general government gross debt to GDP has decreased to 42.9% in 2021 from 51.1% levels in 2020.¹



Policy enablers

- By 2040, the country aims to achieve a 100% share of RE generation in the overall generation mix.¹¹
- To promote the development of RE, the government has established a Grid Code for the integration of distributed generation and establishment of the commercial and technical frameworks for grid connected renewable system providing fiscal incentives such as VAT and import duty, net metering and reverse auctions.^{7,9,10}



Technological Feasibility

- Guyana receives high levels of solar irradiation (GHI) of 5.2 kWh/m²/day and specific yield 4.2 kWh/kWp/day indicating strong technical feasibility for solar in the country.³
- In 2021, 13.6% 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 making it susceptible to fluctuating oil prices.⁴



Market Maturity

- As of 2020, 92.5% of the population in Guyana had access to electricity.²
- The Public Utilities Commission is the designated agency that regulates the energy sector in the country.⁶
- Guyana Power & Light Company Limited (GPL) is the agency responsible for generation, transmission, and distribution of electricity in the country.⁷



Infrastructure

- Guyana Power & Light Company Limited had reported high system losses of 25% indicating a lot of scope for improvement.¹²
- GPL intends to expand its infrastructure to integrate a total of 29 MW of Solar PV generation capacity into its network by 2025.¹³



Financing

- Guyana has implemented provisions for tax concessions and capital write offs for investments in solar and wind projects.¹⁴
- Guyana REDD+ Investment Fund (GRIF) was created in 2010 to channelize international financing for renewables.¹⁵



Energy Imperatives

- In 2020, Guyana per capita electricity consumption stood at 1.4 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 24.7% reaching 8.4 MW in 2021 from 3.5 MW levels in 2017.⁴
- The peak demand for electricity in the country has remained constant at 1.1 TWh in 2021 and 2020.⁴
- In 2021, the total installed capacity in the country stood at 360 MW with a significant share coming from oil (86.1%) followed by bioenergy (11.4%) and solar (2.8%).⁴