



Belize

Latin America & Caribbean

Ease of doing Solar classification



Progressive

Electricity Consumption in kWh/capita (2020)

1483.8

Average PVout in kWh/kWp/day (2020)

4.2

Cumulative Solar Capacity in MW (2021)

6.6

Getting Electricity Score (2020)

73.7

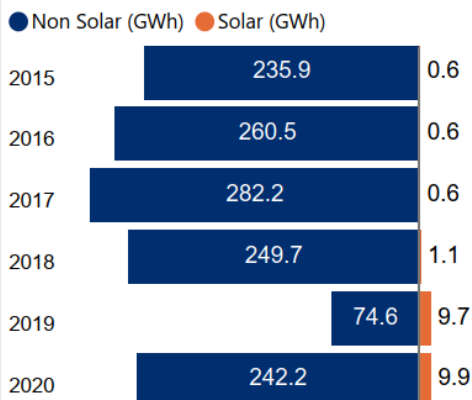
NDC Target by 2030 in KtCO_{2e}

5647.0

Human Development Index (2021)

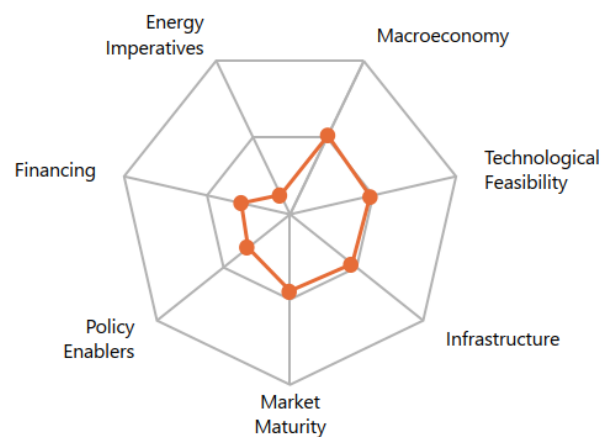
0.7

Renewable Energy Generation by Source

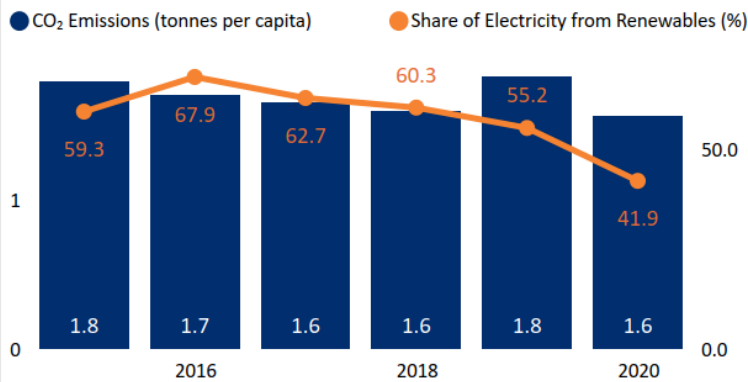


Non Solar RE includes Wind and Hydro;

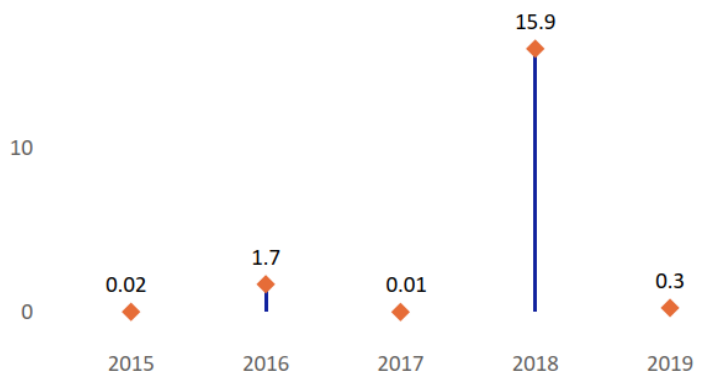
Performance against 7 Drivers



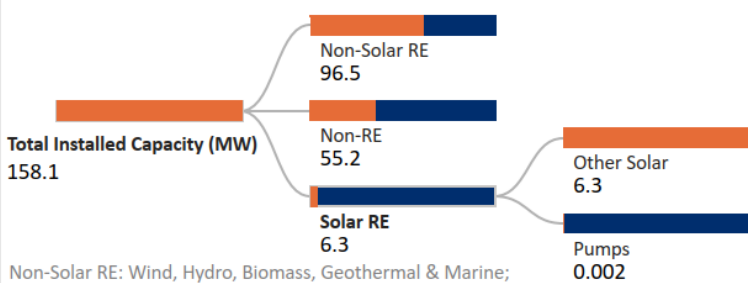
CO₂ Emissions vs Electricity share from Renewables



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?

No

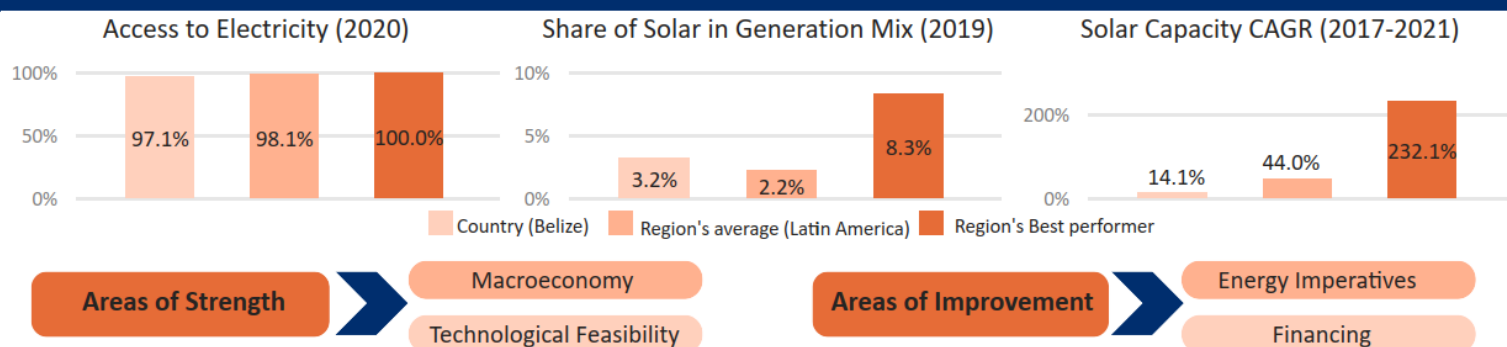
Renewable Energy Certificates?

No

Renewable Purchase Obligation?

No

Country's regional performance and characteristics



Key Insights

Drivers

Insights



Macroeconomy

- Belize is upper middle-income country with a GDP per capita (PPP) of USD 9,627 in 2021.^{1,4}
- Due to COVID-19 Pandemic, the GDP (Real) contracted by 13.7% in 2020. However, in 2021 it has bounced back growing at a rate of 16.3%.¹
- The inflation rate (CPI) of the country has increased to 1.5% in 2021 from 0.6% levels in 2020.¹
- The general government gross debt to GDP has reached 60.6% in 2021 from 59.3% levels in 2020.¹



Policy enablers

- By 2030, the country aims to achieve 85% share of RE in the generation mix.⁷
- To promote the development of RE, the country offers various incentives such as tax exemptions, tax credits, RE auction.¹²



Technological Feasibility

- Belize receives high levels of solar irradiation (GHI) of 5.05 kWh/m²/day and specific yield 4.2 kWh/kWp/day indicating strong technical feasibility for solar in the country.³
- The country is highly dependent on imported fossil fuels for generation of electricity thus making it susceptible to fluctuating oil prices.⁴
- In 2021, 27.1% of the country's power demand was met through RE sources.⁴



Market Maturity

- As of 2020, 97.1% of the population in the country had access to electricity.²
- The Public Utilities Commission regulates the energy sector in the country.⁶
- Belize Electricity Limited (BEL), a public utility, is responsible for the generation, transmission, and distribution of electricity in the country.
- While the transmission and distribution sectors are controlled by BEL, the generation sector has presence of other companies such as HML, BELCOGEN, SSEL and BAPCOL.⁶



Infrastructure

- By 2030, the country aims to increase system efficiency by bringing the T&D losses to 7% level.⁷
- The power infrastructure operates on 115 V to 69 kV with the total length of transmission lines reaching 442 km as of 2021.^{10,11}



Financing

- The development finance corporation of Belize offers 100% financing up to USD 300,000 at low interest rates for RE projects, EVs and other solar based appliances to accelerate the adoption of these technologies.⁸
- The UAE-Caribbean Renewable Energy Fund (UAE-CREF) in 2020 has sanctioned a USD 50 Mn loan for hybrid solar-diesel power plant equipped with battery storage.⁹



Energy Imperatives

- In 2020, the per capita electricity consumption of 1.48 MWh is relatively lower in comparison to the global average of 3.31 MWh.⁴
- The peak demand for electricity in the country has decreased in 2021 reaching 0.59 TWh from 0.83 TWh in 2020.⁴
- In 2021, the total installed capacity in the country stood at 0.19 GW with a significant share coming from oil (43.4%), renewable hydro (30.01%), bioenergy (22.8%) and solar PV (3.3%).⁴