



El Salvador

Latin America & Caribbean

Ease of doing Solar classification



Achiever

Electricity Consumption in kWh/capita (2020)

1022.2

Average PVout in kWh/kWp/day (2020)

4.8

Cumulative Solar Capacity in MW (2021)

478.4

Getting Electricity Score (2020)

74.5

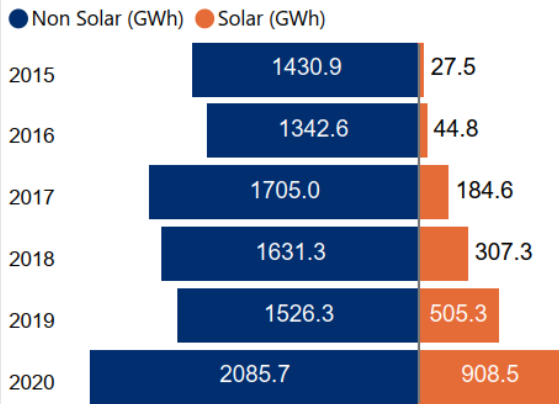
NDC Target by 2030 in KtCO₂ eq (base year 2019)

640.0

Human Development Index (2021)

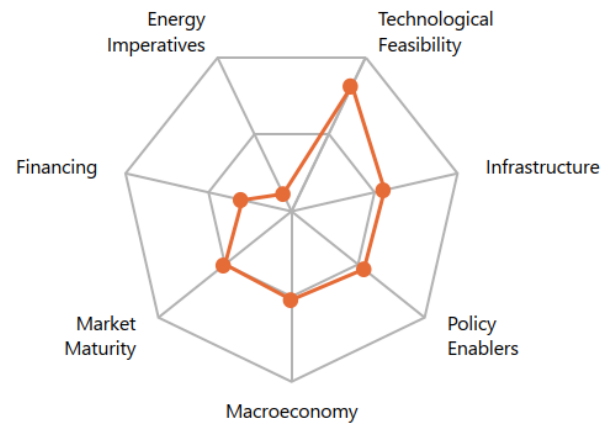
0.7

Renewable Energy Generation by Source

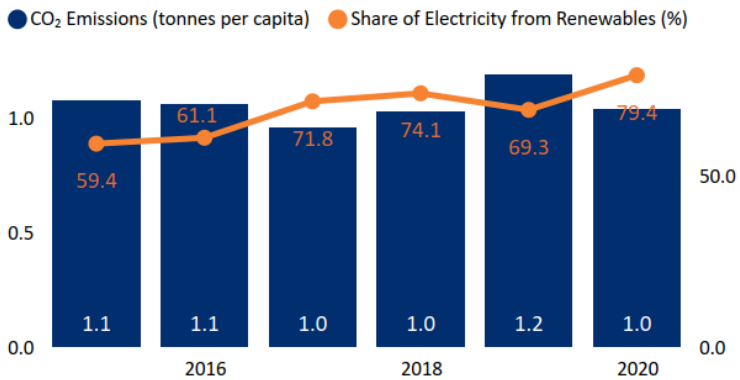


Non Solar RE includes Wind and Hydro;

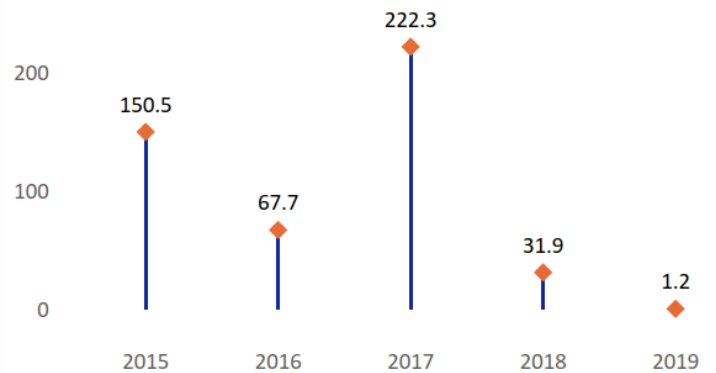
Performance against 7 Drivers



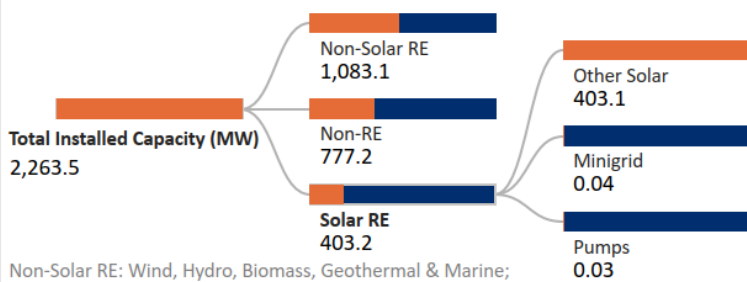
CO₂ Emissions vs Electricity share from Renewables



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

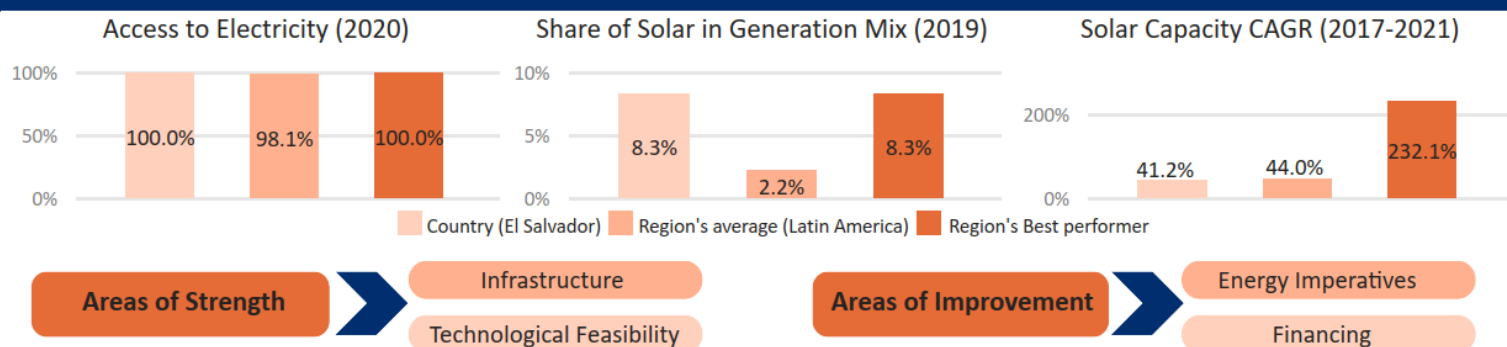
Renewable Energy Certificates?

No

Renewable Purchase Obligation?

No

Country's regional performance and characteristics



Key Insights

Drivers

Insights



Macro-economy

- El Salvador is a lower-income country with a GDP per capita (PPP) of USD 9,982 in 2021.^{1,2}
- Due to COVID-19 Pandemic, the GDP (Real) had contracted by 4.1% in 2020. However, in 2021 it has bounced back growing at a rate of 7.8%.¹
- The inflation rate (CPI) of the country has increased to 3.5% in 2021 from -0.4% levels in 2020.¹
- The general government gross debt to GDP has reached 82.4% in 2021 from 89.4% levels in 2020.¹



Policy enablers

- To promote the development of RE the government provides several fiscal incentives such as income tax exemptions and import duty exemptions in the country.⁶
- The master plan for renewable energy 2012-2026 aims to increase the RE capacity in three tranches i.e., 250 MW in first phase, 192 MW in second phase and 182 MW in third phase.⁷
- To catalyse the growth of RE in the country, the country held RE auctions in 2014, 2017 and 2019 with a total of 272 MW capacity tendered.⁶



Technological Feasibility

- El Salvador receives very high levels of solar irradiation (GHI) of 5.9 kWh/m²/day and specific yield 4.8 kWh/kWp/day indicating very strong technical feasibility for solar in the country.³
- In 2021, 44.3% of the country's power demand was met through RE sources (excluding large hydro).⁴



Market Maturity

- 100% of the population in El Salvador had access to electricity as of 2020.²
- Superintendencia General de Electricidad y Telecomunicaciones (SIPRT) is the designated agency that regulates the energy sector in the country.⁶
- The power sector is unbundled with generation, transmission, and distribution sector seeing participation from different companies. The major companies in generation space are CEL, LaGeo, Duke Energy, INE etc, while transmission distribution sector is majorly operated by ETESAL and AES corporation.⁶



Infrastructure

- The transmission and distribution system of the country operates at 60 Hz frequency and voltages ranging from 220 V to 230 kV.⁶
- The country's national grid is connected to Central American Electrical Interconnection System (SIEPAC) through a single circuit line with a capacity of 300 MW ensuring energy security in the country.^{9,10}



Financing

- In 2018, Finfund (Finnish Fund for Industrial Cooperation Ltd) granted USD 15 Mn loan for the construction of 10 solar plants with a cumulative capacity of 100 MW.⁶
- IRENA and the El Salvador's government has joined hands in January 2022 to support its decarbonization plan, to tap the geothermal potential and to provide financing for the RE projects in the country.⁸



Energy Imperatives

- In 2020, El Salvador's per capita electricity consumption stood at 1.02 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 41.2% reaching 478 MW in 2021 from 120 MW in 2017.⁵
- The peak demand for electricity in the country has decreased to 7.88 TWh in 2021 from 7.92 TWh levels in 2020.⁴
- In 2021, the total installed capacity in the country stood at 2.45 GW with a significant share coming from oil (31.4%), hydro (23.3%) and solar (19.6%).⁴