



Burkina Faso

Africa

Ease of doing Solar classification



Influencer

Electricity Consumption in kWh/capita (2020)

76.5

Average PVout in kWh/kWp/day (2020)

4.6

Cumulative Solar Capacity in MW (2021)

62.4

Getting Electricity Score (2020)

29.4

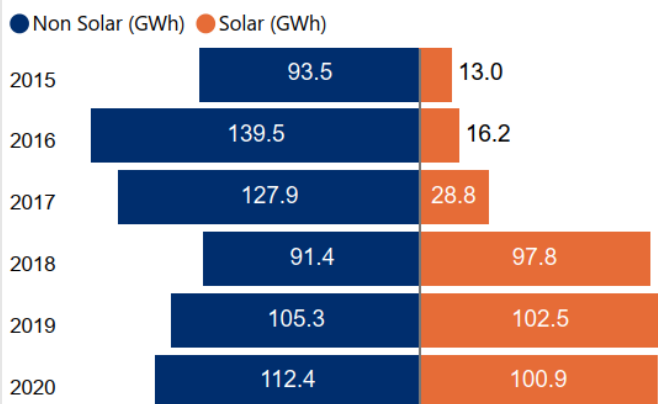
NDC Target by 2030 in %

18.2

Human Development Index (2021)

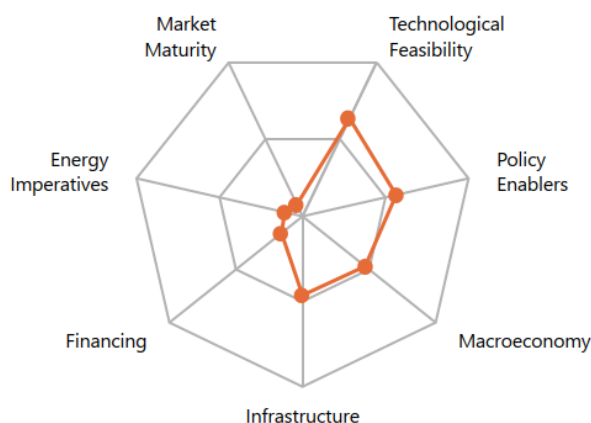
0.4

Renewable Energy Generation by Source

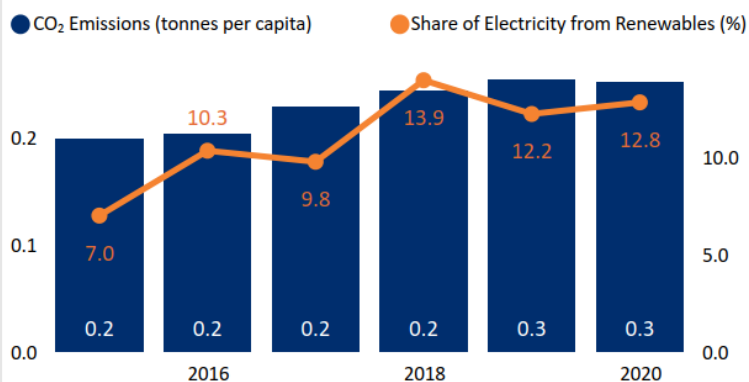


Non Solar RE includes Wind and Hydro;

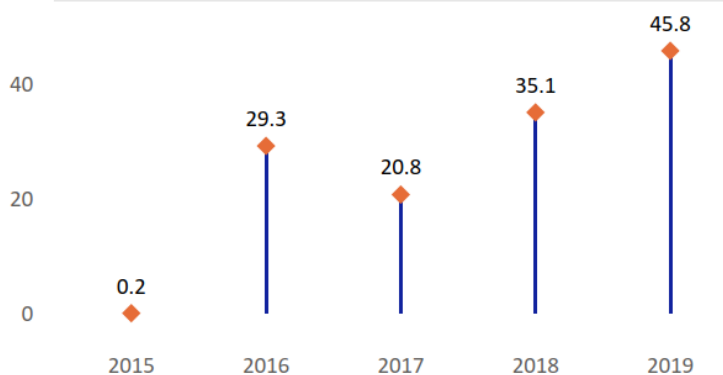
Performance against 7 Drivers



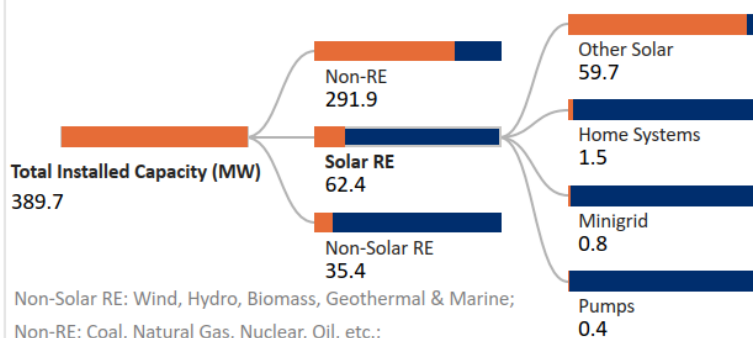
CO₂ Emissions vs Electricity share from Renewables



International Finance received for Clean Energy (Million US Dollars)

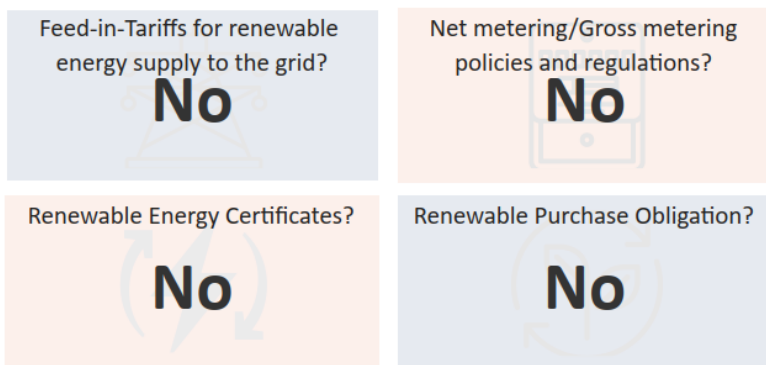


Installed Capacity by Source (2019)



Non-Solar RE: Wind, Hydro, Biomass, Geothermal & Marine;
 Non-RE: Coal, Natural Gas, Nuclear, Oil, etc.;
 Other Solar: Utility Scale Solar, Rooftop etc.;

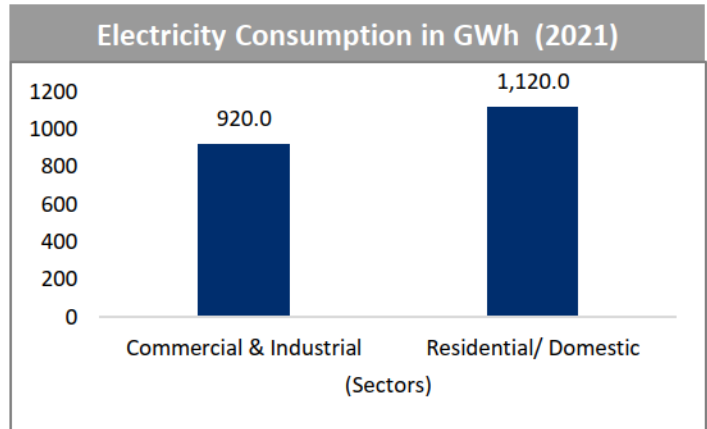
Support for Renewables (2020)



Peak Demand/Load in MW (2021)
419.0

Electricity Consumption CAGR in % (2022 - 2026)
13.0

Threshold for licensing Solar in MW (2017)
1.0

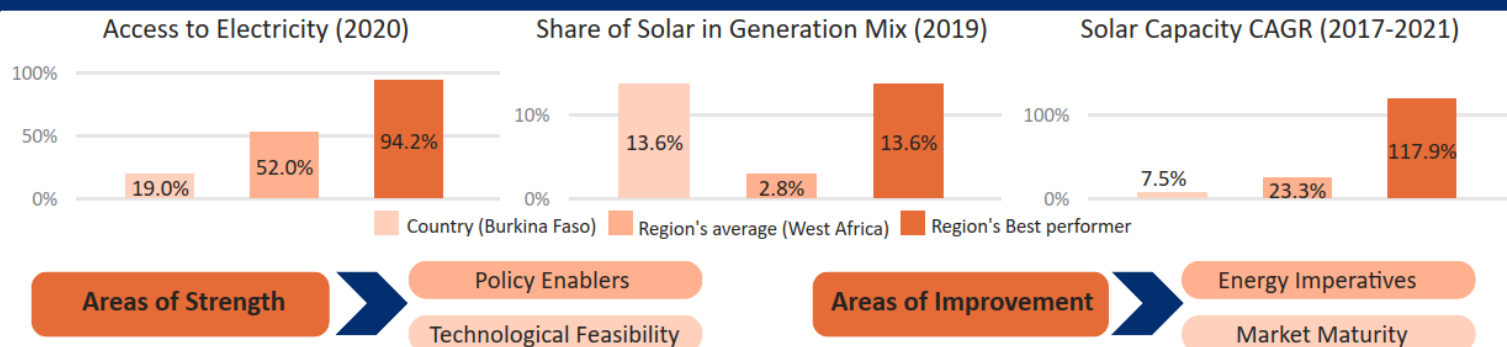


Financial Support Mechanisms (2021)	
Duty waivers to solar developers for importing/procuring material from foreign land	Yes
Tax waivers for manufacturers of raw materials (modules, off grid appliances, etc.)	No
Credit facilitation for solar energy from financial institutions (FIs)	No
Viability Gap Funding (VGF) i.e. Grant to support RE projects that are economically justified but fall short of financial viability	No
Accelerated Depreciation benefit for Industrial/commercial users of Solar Power	No

Policies/Schemes for Solar Segments (2021)								
Rooftop Solar	Solar Mini Grids	Standalone solar systems	Utility scale solar	Solar Parks	Floating Solar	Solar heating and cooling system	Battery waste management	Green Hydrogen
No	No	Yes	No	No	No	No	No	No

Emerging Technologies/Innovative Models (2021)	
Hybrid technologies - combination of two or more technologies to achieve efficient systems (Example: wind + solar PV hybrid systems, solar + storage systems)	Yes
Emerging technologies - the next generation technologies (Example: Artificial Intelligence, Machine learning, Internet of Things, etc.)	Yes
E-mobility/Electric vehicles	No

Country's regional performance and characteristics



Key Insights

Drivers

Insights



Macro-economy

- Burkina Faso is a low-income country¹ having GDP per capita (PPP) of USD 2,395 as of 2021.²
- GDP (Real) grew at an annual rate of 6.9% in 2021 and it is estimated to increase by 4.7% in 2022.³
- The public debt is estimated at 51.4% of GDP in 2021⁴ while the inflation rate reached 3.9% in 2021.⁵
- The budget deficit widened to 5.6% of GDP in 2021, a reflection of high expenditure while tax revenues remained low.⁴



Policy enablers

- National Agency for Renewable Energy and Energy Efficiency (ANEREE) has the mandate to promote the use of RE.⁶
- The country initiated an energy transition plan with the development of SPV as part of its Desert-to-Power initiative.⁴
- The country is on track to achieve SDG 13 on climate action by 2030 as it has accomplished about 90% of the goal.⁴
- Climate funding remains low in the country with the financial needs for the 2021–2025 NDC amounting to \$4.12 Bn of which only 39% has been acquired.⁴



Technological Feasibility

- The country receives high levels of solar irradiation of 5.8 kWh/m²/day and specific yield of 4.6 kWh/kWp/day indicating a very strong technical feasibility for solar in the country.⁸
- The country typically receives 10 hours of sunlight per day.²⁴
- Yeelen Rural Electrification Project in Burkina Faso aims to install 100 mini-grids and improving the regulatory framework to mobilise private sector capital in RE.⁹
- The 'Beyond the Grid Fund for Africa (BGFA)' is providing \$2.5 Mn in funding to Off-grid solar system provider Oolu to install solar home systems and to expand its operations in rural areas.¹⁰



Market Maturity

- 19% of the population in the country had access to electricity as of 2020.¹¹
- National Electricity Utility (SONABEL), the vertically integrated state-owned utility is responsible for producing, transporting and distributing electricity in Burkina Faso.¹²
- Electricity Sector Regulatory Authority (ARSE) is the energy regulator responsible for regulating the activities of production, operation, transport, distribution, import, export, and sale of electricity throughout the national territory.¹³
- Burkina Faso is a member of West African Power Pool (WAPP).¹⁴



Infrastructure

- In Burkina Faso, electrical energy is transported at 90 kV, 132 kV and 225 kV and the capacity of transmission infrastructure is 1137 MVA.^{15,24}
- As part of the West Africa Power Pool program, the construction of the Ghana-Burkina Faso Interconnector is estimated to reduce the cost of electricity supply to Burkina Faso.¹⁴
- Burkina Faso has set up a solar panel manufacturing unit with a production capacity of 30 MW of solar panels/year.¹⁷
- The country's average Transmission and Distribution loss levels are 3.15% and 11.53% respectively in 2021.²⁴



Financing

- In 2022, AfDB approved the Desert to Power G5 Sahel Financing Facility covering Burkina Faso, Chad, Mali, Mauritania, and Niger.¹⁸
- The AfDB supported Electrification Project for semi-urban areas of Ouagadougou and Bobo-Dioulasso has resulted in 32,449 new connections to the electric power network in 2022.¹⁹
- The Sustainable Energy Fund for Africa (SEFA), managed by the AfDB, has approved a \$1 Mn grant to facilitate transition to clean energy.²⁰



Energy Imperatives

- Of the total electricity generation of 8,72,126 MWh, solar electricity generation contributed 58,274 in 2021.²⁴
- The total installed capacity of solar PV witnessed a CAGR of 7.5% between 2017-2021 reaching 62.4 MW in 2021 from 46.8 MW levels in 2017.²¹
- The off-grid capacity of solar PV and installed capacity of solar mini grids stood at 1.2 MW and 2.1 MW as of 2020.²⁴
- In 2020, the per capita electricity consumption stood at 0.076 MWh which is significantly lower in comparison to the global average of 3.31 MWh.²²