Zimbabwe

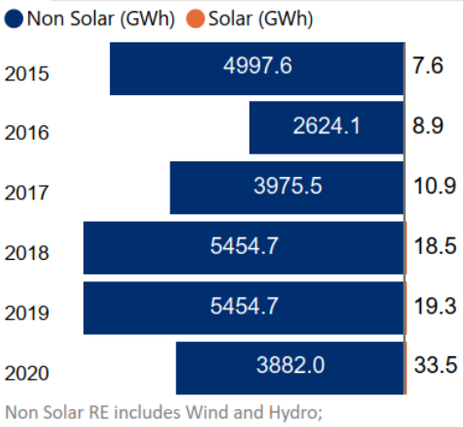
Africa

Ease of doing Solar classification

Influencer

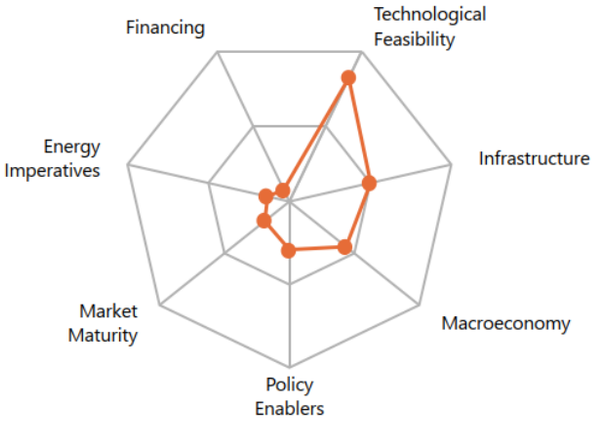
Electricity Consumption in kWh/capita (2020)	Average PVout in kWh/kWp/day (2020)	Cumulative Solar Capacity in MW (2021)
747.5	**4.9**	**30.0**
Getting Electricity Score (2020)	**NDC Target by 2030 in % (base year 2017)**	**Human Development Index (2021)**
48.6	**40.0**	**0.6**

Renewable Energy Generation by Source

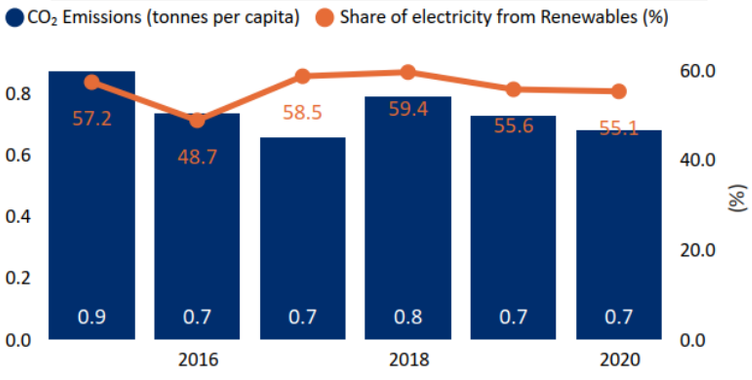


Non Solar RE includes Wind and Hydro;

Performance against 7 Drivers



CO_2 Emissions vs Electricity share from Renewables



Fiscal Incentives & Public Financing for Renewables (2020)

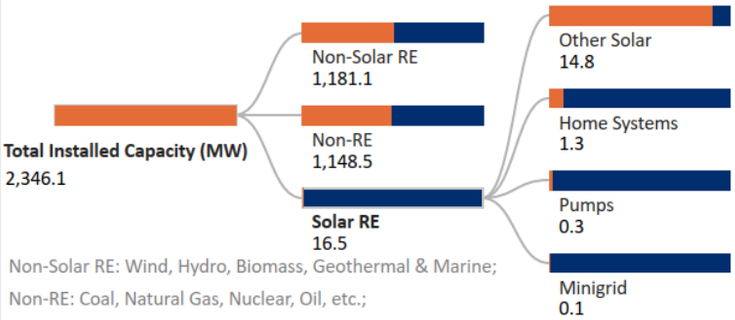
Investment or production tax credits?

No

Public investment, loans, grants, capital subsidies or rebates?

Yes

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?

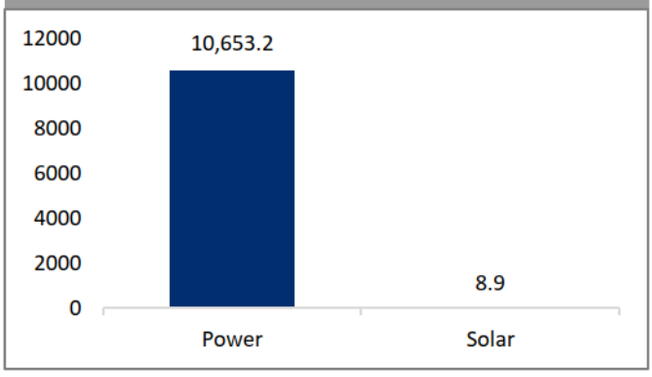
No

Renewable Purchase Obligation?

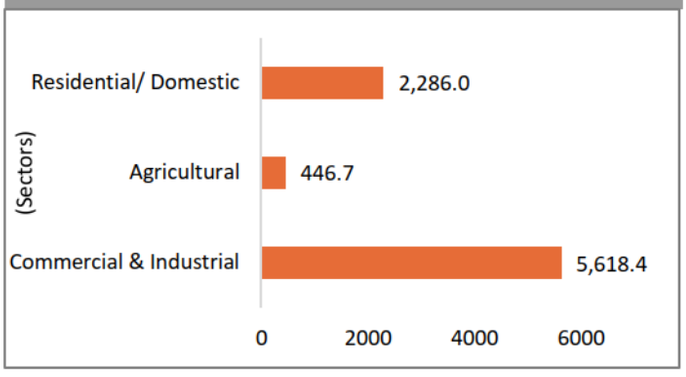
No

Threshold for licensing Solar in MW (2021)	Cheapest Source of Power (2021)	Generation Cost for Hydro Power in USD/kWh (2021)
0.1	Hydro	0.04

Electricity Generation in GWh (2021)



Electricity Consumption in GWh (2021)



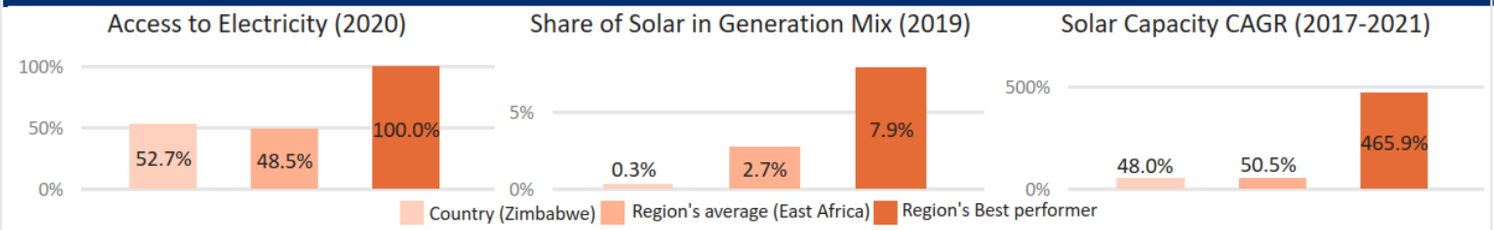
Financial Support Mechanisms (2021)	
Duty waivers to solar developers for importing/procuring material from foreign land	Yes
Tax waivers for manufacturers of raw materials (modules, off grid appliances, etc.)	No
Credit facilitation for solar energy from financial institutions (FIs)	No
Viability Gap Funding (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	No	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)	No
Emerging technologies - the next generation technologies (Example: Artificial Intelligence, Machine learning, Internet of Things, etc.)	Yes
E-mobility/Electric vehicles	Yes

Country's regional performance and characteristics



Areas of Strength → Infrastructure; Technological Feasibility

Areas of Improvement → Energy Imperatives; Financing

Key Insights

Drivers	Insights
Macro-economy	•Zimbabwe is a lower middle-income country [1] with a GDP per capita (PPP) of USD 2,324 in 2021. [2] •GDP (Real) grew at an annual rate of 6.3% in 2021, and is estimated to grow by another 3.5% in 2022. [3] •General government gross debt to GDP significantly decreased to 67.6% in 2021 from 102.6% levels in 2020. [4] •The inflation rate in the country decreased to 98.5% in 2021 from 557.3% levels in 2020. [5]
Policy enablers	•The Ministry of Energy and Power Development (MoEPD) is responsible for formulating and implementing energy and power development policies in the country. [6] •Zimbabwe targets to increase the share of solar to 25% in the electricity generation mix by 2030. [7] •Solar panels, inverters, solar lights, energy-saving light bulbs, and electricity generators are exempted from import duty but a 15% VAT charge is applied. [8]
Technological Feasibility	•Zimbabwe receives very high levels of solar irradiation of 5.7 kWh/m^2/day and a specific yield of 4.9 kWh/kWp/day indicating a very strong technical feasibility for solar in the country. [9] •The country typically receives 6 hours of sunlight per day. [7] •In Zimbabwe, Mini-grids below 100 kW are regulated by light-handed regulations and do not require a license and are usually developed by NGOs with donor fundings. [10] •Zimbabwe is constructing an off-grid 0.5 MW hybrid solar-diesel project in Mashonaland East province. [11]
Market Maturity	•52.7% population in Zimbabwe had access to electricity as of 2020. [12] •The Zimbabwe Electricity Transmission and Distribution Company (ZETDC) is responsible for the transmission, distribution, and supply of electricity to the end users. [13] •Zimbabwe Energy Regulatory Authority (ZERA) is responsible for regulating the procurement, production, transportation, transmission, distribution, importation/exportation of energy. [14] •The average term of Power Purchase Agreements (PPAs) for solar PV projects in Zimbabwe is 25 years. [7]
Infrastructure	•The transmission system consists of 420 kV, 330 kV, 220 kV, 132 kV, 88 kV, and 66 kV lines with a total circuit length of over 7,274 km. [15] •Zimbabwe has over 119,784 km of distribution lines serving approximately 600,000 customers. [15] •The country's average Transmission and Distribution loss levels stood at 4% and 12.76% respectively in 2021. [7]
Financing	•The United Nations SDG-Fund has approved Zimbabwe's USD 45 Mn program on catalyzing investments in RE for the acceleration of the attainment of the Sustainable Development Goals (SDGs) in the country. [16] •The AfDB-managed Sustainable Energy Fund for Africa (SEFA) approved a USD 965,000 grant to support the development of a 20 MW off-grid solar PV rooftop project in Zimbabwe. [17] •The Energy Sector Reform Support Technical Assistance Project funded by the AfDB aims to improve the availability of reliable electricity supply by promoting IPPs in Zimbabwe. [18]
Energy Imperatives	•In 2020, Zimbabwe's per capita electricity consumption stood at 0.75 MWh, which is lower in comparison to the global average of 3.31 MWh. [20] •The total installed capacity of Solar PV witnessed a CAGR of 48% reaching 30.02 MW in 2021 from 6.25 MW levels in 2017. [19] •The price of electricity in the country stood at 11.90 US Cents/kWh in 2019. [21]