The International Tracking Standard Foundation

Founder of I-REC

COUNTRY ASSESSMENT REPORT BOTSWANA

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1.1 Country Assessment Report: Botswana

Country Name	Botswana
Introduction	Botswana is situated in Southern Africa and bordered by Namibia to the south-west, South Africa to the south-east, and Zimbabwe to the north-east. The country is landlocked and covers an area of 582,000 km2, most of which is the Kalahari Desert. According to the Population & Housing Census 2022, Botswana has a population of 2, 359,609 (Statistics Botswana). In comparison, Botswana's population in 2011 stood at 2, 024,904, representing a 14.2 % increase from 2011 and a population growth rate of 1.4% between the two (2) censuses. As of June 30, 2025, the population with access to electricity stood at 77% (BPC report). Gross Domestic Product (GDP) in 2024 stood at 19.40billion US$ with a growth rate of -3.0% (Statistics Botswana). From way back, the mining sector, especially diamonds, has been the main contributor to GDP, but has declined due decrease in global demand for diamonds.

1.2 Economic Structure and Activity

Since independence, Botswana's economy has been dominated by the beef and mining industries. Gradually, the mining industry overtook the beef industry, and diamond sales have been the main contributor to GDP. Recently, the GDP growth rate has declined mainly due to external factors like the Russia & Ukraine War; growth in sales of synthetic diamonds, etc., which directly resulted in moderate growth of the mining sector, esp. diamond sales.

In terms of percentage contribution to GDP, the following four (4) productive/economic sectors have played a major role:

No	Sector	2024 Q2 (%)	2025 Q1 (%)
1	Mining & Quarrying	14.2%	14.4%
2	Wholesale & Retail	11.8%	12.1%
3	Public Administration & Defence	17.4%	17.4%
4	Construction	11.5%	11.6%

Since 2021, the country has experienced high inflation rates reaching 14.6% in August 2022, which was the highest since the 2008/09 global recession.

In the energy space, all refined petroleum products are imported, whilst renewable energy contributes 8% to the total energy mix (Botswana Energy Combat).

Table 2: Generation and demand: (type, MW, TWh)

As of 2024, Botswana's total installed electricity generation capacity was approximately 963 megawatts (MW), sourced from various technologies. The total electricity production during the 2024/25 financial year period reached 3,149,301.51 megawatt-hours, supplied primarily by key facilities including Morupule B Power Station (MPBS) and Morupule-A Power Station (MAPS), and an additional import production of 1,454,014.37 megawatt-hours matching the total demand of the country for that financial year. Below is a table showing the production separated by technology source:

Financial year	Source	MWh
2023/24	Internal Generation	2,993,584.51
	Total Imports	1,689,081.86
2024/25	Internal Generation	3,149,301.51
	Total Imports	1,454,014.37

Electricity consumption was driven by both domestic and government consumers, with government institutions accounting for a significant portion of the national demand.

RE Market Potential:
The updated NDCs have identified 26 quantifiable mitigation actions mainly from the energy sector. It is projected that if the identified mitigation measures are implemented and solar electricity substitutes coal electricity, and the identified targets are achieved, then the avoided GHG emissions will be approximately 4000 Gg CO2eq. The projected GHG emissions under the mitigations represent avoided GHG emissions of approximately 15% by the year 2030.

Electrical interconnection and import/export:
Botswana is a member of the Southern African Power Pool (SAPP) and is interconnected with neighbouring countries through a regional transmission network that facilitates electricity trade across Southern Africa. One of the key interconnections is the Matimba–Phokoje 400 kV transmission line, which links Botswana to South Africa's Eskom grid, enabling high-capacity power imports. Additionally, Botswana maintains cross-border electricity connections with Zambia (via ZESCO) at 66 kV, Namibia (via NamPower) at 132 kV. There is also a 400 kV line connecting Botswana to Zimbabwe and two (2) 132 kV lines in the Southern part of Botswana to South Africa.

The actual import and expert capacities for capacities are as covered under the Generation and Demand Chapter.

Historical support or development of renewables in the country/region:
Botswana supports the development of mega-scale renewable energy power projects through the following support mechanisms:

a. Purchase Agreement
b. Power Purchase Agreement Direct Agreement
c. Sub-lease Agreement
d. Letter of Comfort

Roof Top solar is supported through guaranteed developer interconnection and net metering. There are other off-grid renewables that were procured by the government to support the provision of energy services to the off-grid villages.

Electricity market structure:
The Ministry of Minerals and Energy is responsible for the provision of adequate and sustainable energy through formulating and implementing effective policies and regulatory frameworks. The Botswana Power Corporation (BPC), a wholly owned subsidiary of the Government, as the utility is mandated with the generation, transmission, and distribution of electricity in the country under the BPC Act. Currently, the whole of transmission and distribution networks are owned by BPC but hold some of the assets in generation as the market was liberalised in 2007 to accommodate Independent Power Producers (Electricity Supply Act).

The Botswana Energy Regulatory Authority (BERA) derives its mandate from the BERA Act of 2016, which was formed and operationalised in 2017 to regulate both electricity and petroleum products.
Independent Power Producers are also a major group in Botswana's renewable energy space. These are licensed to generate electricity, and the majority operate in the renewable energy space, issued with generation entitling them to generate electricity for their own use or for sale to BPC or other third parties outside the country.

Description of renewables support mechanism:
The ownership of the Energy Attributes is dictated by the negotiations of the Power Purchase Agreement for utility-scale projects.

Responsible government department: (include key contacts)
The responsible department is the Department of Energy under the Ministry of Minerals and Energy

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Existing/Planned energy legislation:

Botswana has set renewable targets (50% by 2036) under the IRP of 2020 that the government uses to increase the share of renewable energy in the supply mix. However, while legal frameworks, such as the Electricity Supply Act and BERA Act, provide for licensing renewables and regulating market participants, no legal framework currently governs the ownership or issuance of energy attribute certificates (RECs/I-RECs). Therefore, establishing I-RECs remains essential to fill this legal gap: it will provide a structured mechanism to assign and trade energy attributes, align with national renewable targets, and support corporate reporting.

Environmental legislation for RE:

1. Electricity Supply Act (Cap. 73:01 / 74:05)

The foundational law governing the generation, transmission, distribution, and supply of electricity in Botswana.

2. Botswana Power Corporation Act (Cap. 74:01)

Establishes Botswana Power Corporation (BPC), the state-owned utility responsible for most domestic power generation and supply.

3. Botswana Energy Regulatory Authority Act No. 13 of 2016 (amended in 2020, 2022)

The BERA Act establishes the Botswana Energy Regulatory Authority (BERA) as an independent body responsible for regulating and overseeing the energy sector in Botswana. Its main role is to ensure fair, transparent, and sustainable energy development by issuing licenses, setting tariffs, enforcing safety standards, and protecting consumer interests. The Act empowers BERA to regulate all energy forms - including electricity, gas, petroleum, and renewables to promote efficient energy use, attract investment, and support national economic growth.

Policies & Strategic Instruments

1. National Energy Policy (NEP, April 2021)

This National Energy Policy (NEP) is intended to guide the management and development of Botswana's energy sector, especially the penetration of new and renewable energy sources into the country's energy mix in order to attain energy self-sufficiency and increased security of supply. The NEP is expected to create a conducive environment that will not only facilitate investment in the energy sector but also add value to export revenues, facilitate production in other sectors of the economy, and create employment within the energy sector. It also sets a foundation that will steer the utilization of locally available energy resources optimally and efficiently to ensure that Botswana attains a sustainable and low-carbon economic development.

2. Botswana Renewable Energy Strategy (BRES) and Botswana National Energy Efficiency Strategy (NEES)

The Botswana Renewable Energy Strategy (BRES) of 2018 was developed to increase the share of renewable energy in the national energy mix and drive the country's transition toward sustainable energy. Alongside this, the National Energy Efficiency Strategy is structured in three consecutive five-year phases: the first phase focuses on laying the foundation, the second on consolidating and strengthening energy efficiency measures, and the third on accelerating implementation. This phased approach allows flexibility to respond to emerging challenges and ensures sustained energy savings that improve Botswana's energy security and competitiveness.

3. Integrated Resource Plan (IRP 2020–2040)

Launched in December 2020 to guide least-cost electricity generation investments, including renewable energy, over a 20-year horizon.

5. Botswana Climate Change Policy of 2021

It outlines a national vision for climate-compatible development, aiming to build resilience to climate change impacts while minimizing the country's contribution to global warming. The policy sets out major political intent and actionable commitments, paving the way for specific strategies and action plans.

Existing/Planned energy certificate systems: (purpose, extent) Botswana currently has no REC or equivalent energy certification scheme.

Extent of engagement with government:
There has been engagement to register Botswana as an IREC issuing country regularly between the MME, the Ministry of Finance, the Ministry of Environment and Tourism, and the Ministry of Trade and Entrepreneurship.

Response from the Government in relation to attribute tracking systems:
The above-mentioned Government ministries are well aware of various attributes tracking systems and, in particular, I-RECs. They welcome the idea of Botswana becoming an I-REC issuing country.

Demand-side market potential or strategic nature of market development:

There is a clear demand for I-RECs in Botswana, and the private sector has shown interest in renewable electricity and associated environmental attributes for their sustainability reporting. Other large sectors in the country mining, telecoms, retail, and hospitality, face Scope 2 and Scope 3 emissions reporting requirements through their global supply chains and would benefit from locally issued certificates rather than sourcing them externally. With no national certificate scheme currently in place, I-RECs would bridge this gap by enabling generators, including rooftop solar and upcoming utility-scale solar projects, to issue verified certificates while allowing local consumers to redeem them for credible claims. This would support corporate ESG goals, align with Botswana's growing renewable energy market, and strengthen the country's overall energy transition.

Analysis of political disruptions or market risks:

Botswana is one of Africa's most stable democracies, having maintained a multi-party democratic system since gaining independence from Britain in 1966. The country is known for good governance, low corruption, and strong institutions.

The economy is primarily driven by diamond mining, which accounts for a significant portion of GDP and government revenue. Other key sectors include tourism, agriculture, and financial services. Botswana has one of the highest GDP per capita rates in Africa, but it faces challenges such as income inequality and high unemployment.

Analysis of regulatory risks, including linkages with carbon markets and support systems:

For utility-scale and small grid-tied projects, the government is open to negotiating ownership of energy attributes. As for the rooftop solar programme, regulations do not currently define who owns energy attributes.

Current environmental reporting in energy:

The Government's Ministry of Environment and Tourism, through the Environmental Assessment Act of 2011, reports on climate change and energy as a mitigating measure.

Mechanisms in place to support the reliable verification and issuance of I-RECs:

No mechanism exists.

Local organizations of importance and their opinion on local I-REC market development:

Several local organizations of strategic importance have been engaged, and most have shown openness towards supporting the establishment of a functional I-REC ecosystem.

Key organizations consulted include:

- Botswana Power Corporation (BPC): Initial discussions indicate openness, especially for any upcoming or planned renewable energy installations, particularly those under the Integrated Resource Plan (IRP).
- Botswana Energy Regulatory Authority (BERA): BERA has expressed support in principle, especially in light of efforts to improve transparency and environmental accountability in the energy sector.
- Department of Energy, Ministry of Minerals and Energy: The Department sees the I-REC market as a strategic opportunity to attract private capital and incentivize clean energy investments.
- Ministry of Environment and Tourism: The Climate Change Coordinator has shown support for the development of market-based mechanisms like I-RECs and carbon credits, which align with the country's Nationally Determined Contributions (NDCs) and green transition ambitions.

• Local IPPs and the Solar Industries Association of Botswana (SIAB): Several Independent Power Producers (IPPs) and project developers have been consulted, with many showing enthusiasm and applying pressure towards the potential for monetizing RE attributes through I-RECs.
Any other relevant information:

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