# Botswana

GDP: **\$15.8bn** 

Five-year economic growth rate: 4.3%

Population: 2.0m

Total clean energy investments, 2009-2014: \$6.0m

Installed power capacity: 293.0MW

Renewable share: 0.4%

Total clean energy generation: 2.6GWh

Top energy authority:

Ministry of Minerals, Energy and Water Resources

OVERALL RANKING

2015

OVERALL SCORE

2015

**8 47 0.59** 

PARAMETER	RANKING	SCORE
I. Enabling Framework	49	0.60
II. Clean Energy Investment & Climate Financing	35	0.37
III. Low-Carbon Business & Clean Energy Value Chains	34	1.22
IV. Greenhouse Gas Management Activities	50	0.36

### SCORE SUMMARY

Botswana scored 0.59 in *Climatescope* 2015, placing it 47<sup>th</sup> on the list of countries overall, one place higher than in 2014. The country's highest score was on Low-Carbon Business & Clean Energy Value Chains Parameter III.

On Enabling Framework Parameter I, the country dropped six places to rank 49th. On the whole, its policy and regulatory environment scored weakly, though it does have some energy access policies in place.

The country finished 35th on Clean Energy Investment and Climate Financing Parameter II. There has been little investment in the sector to date, though financing conditions are more favourable than others in the region.

**★**Gaborone

On Parameter III, Botswana was placed 34th, partly reflecting the presence of a number of distributed clean energy service providers.

On Greenhouse Gas Management Activities Parameter IV, the country was ranked 50th. Modest inroads are being made in the area of corporate awareness.

For further information, access www.global-climatescope.org/en/country/botswana

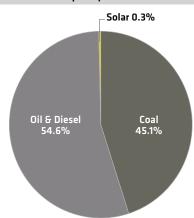
#### **OVERVIEW**

Botswana's outdated power sector relies on coal for 60% of its generation, while approximately one-third of the population lacks access to electricity of any kind. The country's 600MW peak demand is met through importing electricity from surrounding countries when available (roughly 200-300MW per day from South Africa) and running expensive back-up power plants.

The current policy framework provides no specific incentives for clean energy, and the impetus for implementing new policy in the near future is unclear. However, the government is crafting a national energy policy, which outlines new strategies and highlights the need for renewables to be integrated into the power sector.

# **INSTALLED POWER CAPACITY BY SOURCE, 2014 (%)**

#### 293.0MW total installed capacity



Source: Bloomberg New Energy Finance, Botswana Power Company

Botswana has considered feed-in tariffs but not yet implemented them due to limited technical capacity, the government's focus on coal expansion and the potential cost. In June 2015, the government announced it would release a tender for two 50MW solar PV plants. Renewable energy currently makes up less than 2% of the country's generation mix.

# **KEY POLICIES**



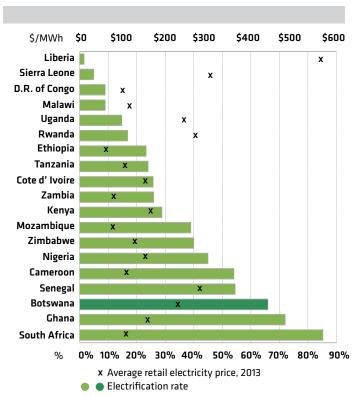
Investors in manufacturing are eligible for a range of tax reductions and import duty exemptions.

Source: Bloomberg New Energy Finance Policy Library

The vertically integrated government-owned utility, Botswana Power Corporation, runs the power system, which until 2015 had only the Morupule A 132MW coal-fired power plant. The utility has tried to bring online the 600MW Morupule B coal plant, but technical issues have delayed its full operation.

Back-up power plants include the 70MW Matshelagabedi, and the 90MW Orapa peaker plant owned by independent power producer Debswana. Meanwhile, Botswana Power Corporation has struggled financially due to the country's suppressed power prices and the cost of imported diesel. The utility has stated its intention to raise prices to match the cost of production.

# ELECTRIFICATION RATES (%) VS AVERAGE RETAIL ELECTRICITY PRICES, 2014 (\$/MWh)



Source: Bloomberg New Energy Finance

In 2012 Japan's Itochu Corp. financed a 1MW PV plant through a \$12.5m grant. The country has completed feasibility studies for a 100MW concentrated solar thermal plant and in July 2015 invited bids to build the plant. A 0.36mLpa biofuels plant was commissioned in 2006 while a \$1.9m 5mLpa one is under construction. The debate over a biofuels blending mandate continues to hamper the sector's growth potential.