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# ELECTRICITY SUPPLY INDUSTRY OF BOTSWANA

## General Information for Potential Investors



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# INTRODUCTION

Botswana is a landlocked country in Southern Africa sharing borders with South Africa, Zimbabwe, Zambia and Namibia. It has a total area of 582,000km<sup>2</sup> and a population of approximately 1.85 million, most of which settled in the eastern part of the country. The Kalahari Desert covers most of the western part of the country.

Currently Botswana Power Corporation (BPC) generates, imports and supplies the electricity consumed in the country. The installed capacity is 132MW and maximum demand in 2006 was 434MW. Botswana receives more than 3,200 hours of sunshine per annum and there is a lot of potential to generate both thermal and photovoltaic electricity from solar energy. Botswana also has huge coal reserves currently estimated at over 200 billion tonnes.

## THE REGULATORY ENVIRONMENT

The Ministry of Minerals, Energy and Water Resources (MMEWR) has responsibility for the issuance of licenses for the generation and supply of electricity. Botswana's electricity regulatory law is somewhat outdated compared to other countries in the region. However, recent changes to the legislative licensing regime should rectify matters, especially from the perspective of potential independent power producers (IPPs).

Botswana does not have an independent energy regulator. Instead, MMEWR performs this function and ensures compliance with quality of supply and service standards. To a large extent, the state-owned utility, Botswana Power Corporation (BPC), regulates itself.

It is expected that future legislation will provide for a water and energy regulator that will undertake regulatory functions.

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## DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

# FACT SHEET



## FACT SHEET: BOTSWANA

<b>Area:</b> 600,370 km <sup>2</sup>	<b>Major Exports:</b> diamonds, copper, nickel, soda ash, meat, textiles
<b>Population:</b> 1,842,323	<b>Major Imports:</b> foodstuffs, machinery, electrical goods, transport equipment, textiles, petroleum products, wood and paper products, metal products
<b>Life Expectancy:</b> 50.2 years	<b>Currency:</b> pula (BWP)
<b>HIV/AIDS:</b> 37.3% (2003 est.)	<b>Exchange Rate per US\$:</b> 6.52 (2008)
<b>Literacy:</b> 81.2%	
<b>GDP (PPP):</b> US\$24.1 billion (2007 est.)	
<b>GDP Growth Rate:</b> 4.7% (2007 est.)	
<b>GDP per Capita:</b> US\$14,700 (2007 est.)	



# INSTITUTIONS RELATED TO THE ELECTRICITY SUPPLY INDUSTRY

Botswana has a number of institutions and government agencies that are either directly or indirectly relevant to the Electricity Supply Industry (ESI) and IPPs.

## **THE PUBLIC ENTERPRISES EVALUATION AND PRIVATIZATION AGENCY**

The Public Enterprises Evaluation and Privatization Agency (PEEPA), part of the Ministry of Finance and Development Planning (MFDP), is responsible for monitoring the performance of public enterprises. PEEPA monitors BPC from a shareholder perspective.

## **BOTSWANA POWER CORPORATION**

Botswana's energy sector is dominated by the Botswana Power Corporation (BPC), a vertically integrated state-owned utility company. BPC is overseen by both MMEWR and the MFDP, which is responsible for monitoring the performance of public enterprises.

Until recently, Botswana avoided investing in expensive internal power supply projects in favor of using regional resources; importing most of its electricity needs from South Africa, to satisfy customer demand. However, the development of the Mmamabula Energy Project (MEP) may turn Botswana into a net electricity exporter. MEP is a very large coal fired IPP planned to produce up to 4,800MW of electricity, mainly for sale into neighboring South Africa with a percentage reserved for BPC. BPC is also an operating member of the Southern African Power Pool (SAPP), and has made good use of that mechanism in the past to purchase some of its electricity requirements.

# PRIVATE INVESTMENT CONSIDERATIONS

The historical stability of Botswana, together with the Constitutional ban on nationalizing private property, contributes to the very low political risk enjoyed by foreign investors in Botswana.

The government actively encourages foreign direct investment in a number of ways:

- There are no restrictions on flows of foreign exchange.
- Foreign firms have the same legal protections as domestic firms.
- Investment incentives are available or can often be agreed with the government.

Although BPC has special privileges in Botswana's electricity sector and Botswana is in need of modernizing its ESI legislation, the agreement on the Mmamabula Energy Project indicates that IPP entry into Botswana is very possible. The Mmamabula IPP is wholly owned by CIC Energy Corp, a Canadian company with exclusive rights to develop the coal reserves at Mmamabula. The mine and power station are expected to become operational by 2012. In addition, regional shortages also open the way for smaller IPP's within Botswana, for example for sales to BPC or via SAPP to the region.

For domestic sales, BPC has been designated as the single buyer of electricity with no direct wholesale or retail sales, except via BPC, allowed.



## INVESTMENT OPPORTUNITIES

The government of Botswana seems to be willing to accommodate investors. Accordingly, the ESI in Botswana offers good opportunities for investors, especially:

- For new generation capacity selling into South Africa, due to Botswana's huge coal reserves and close proximity to South Africa;
- Smaller IPP's selling electricity to BPC, or via SAPP, into the region.

It should be noted that Botswana has a scarcity of water and that new generation projects should take note of this. The Mmamabula IPP, for example, is a dry-cooled plant making extensive use of boreholes to meet the project's needs.

Coal bed methane is another possible source of energy, with some developments on the point of being commercialised. Furthermore, the abundance of coal also makes associated projects, such as coal to hydrocarbon projects, attractive to investors.

The following projects have been identified as possible:

<b>Project &amp; Capacity (MW)</b>	<b>Project Description &amp; Status</b>	<b>Expected Date</b>	<b>Project Sponsors &amp; Funders</b>
Morupule Expansion (600MW)	Expansion of existing coal fired plant. 4x150MW units planned to meet local demand. Prequalification tenders done.	2010	BPC/Equity & Debt
Mmamabula (2,400MW)	Coal mine and coal fired power station. Phase 1 2,400MW with the expansion in Phase 2 to 4,800MW. Feasibility and Environmental Impact Assessment done.	2013	CIC Energy and International Power



**U.S. Agency for International Development**

1300 Pennsylvania Avenue, NW

Washington, DC 20523

Tel: +1 (202) 712-0000

Fax: +1 (202) 216-3524

[www.usaid.gov](http://www.usaid.gov)