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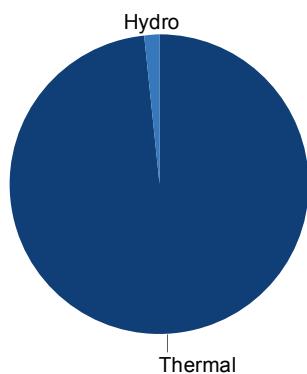
**BENIN POWER MARKET OUTLOOK TO 2030 –  
MARKET TRENDS, REGULATIONS AND  
COMPETITIVE LANDSCAPE**

## Executive Summary

### Thermal Capacity Dominates Power Mix

In 2012, thermal power accounted for XX% of Benin's cumulative installed capacity. Oil-fired plants represented XX% of its thermal power generation capacity. Thermal capacity increased from XX Megawatts (MW) in 2000 to XX MW in 2012, at a Compound Annual Growth Rate (CAGR) of XX%. Natural gas-fired power plants are expected to be introduced into Benin's power mix in the future, reducing the dominance of oil.

**Power Market, Benin, Cumulative Installed Capacity by Type of Power Plant (%), 2012**

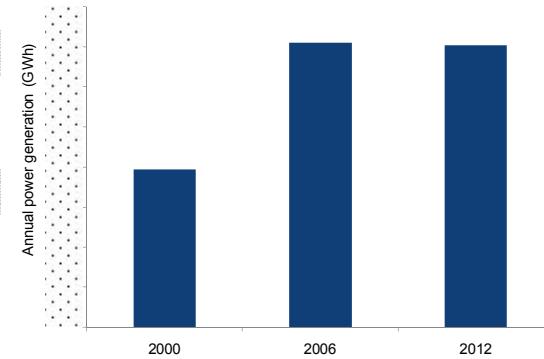


Source: GlobalData, Power eTrack, Capacity and Generation Database [Accessed on May 20, 2013]

### Continued Growth in Power Generation

Power generation in Benin increased from XX Gigawatt hours (GWh) in 2000 to XX GWh in 2012, at a CAGR of XX%. Although the government has been aggressively pursuing economic development, the increase in power generation has been modest. However, during the 2013–2030 forecast period, power generation is expected to increase. Benin has been a net importer of electricity and is focusing on increasing power generation in order to reduce power imports.

**Power Market, Benin, Annual Total Generation (GWh), 2000–2012**



Source: GlobalData, Power eTrack, Capacity and Generation Database [Accessed on May 20, 2013]

## Table of Contents

### 1 Table of Contents

<b>1</b>	<b>Table of Contents</b>	<b>4</b>
1.1	List of Tables	7
1.2	List of Figures	7
<b>2</b>	<b>Introduction</b>	<b>8</b>
2.1	GlobalData Report Guidance	9
<b>3</b>	<b>Benin, Snapshot of Power Market</b>	<b>10</b>
3.1	Macro-economic Factors	10
3.2	Supply Security	13
3.3	Generation Infrastructure	13
3.4	Transmission Infrastructure	14
3.5	Opportunities	14
3.6	Challenges	15
<b>4</b>	<b>Benin, Power Market Analysis</b>	<b>16</b>
4.1	Benin, Power Market, Supply Structure	16
4.2	Benin, Power Market, Key Players	17
4.3	Benin, Power Market, Demand Structure	18
4.3.1	Power Market, Benin, Energy Consumption by Sector, 2012	20
<b>5</b>	<b>Benin, Power Market, Regulatory Overview</b>	<b>21</b>
5.1	Foreign Investment Laws and Regulations	21
5.2	Energy Efficiency	21
5.3	Energy Policy	21
5.4	National Action Plan for Adaptation to Climate Change, 2008	22
<b>6</b>	<b>Benin, Power Market, Capacity and Generation Overview, 2000–2030</b>	<b>23</b>
6.1	Installed Capacity, Breakdown by Type of Power Plant, 2012	23
6.2	Cumulative Installed Capacity and Annual Generation, 2000–2030	24
6.3	Installed Thermal Capacity and Generation, 2000–2030	27

**Table of Contents**

6.4	Installed Hydropower Capacity and Generation, 2000–2030 .....	30
6.5	Installed Renewable Power Capacity and Generation, 2000–2030.....	33
<b>7</b>	<b>Benin, Power Market, Transmission and Distribution Overview .....</b>	<b>34</b>
7.1	Benin, Power Market, Transmission Network Overview.....	34
7.2	Benin, Power Market, Transmission Network Development Plans.....	34
7.3	Benin, Power Market, Distribution Network Overview .....	35
7.4	Benin, Power Market, Grid Interconnection.....	35
<b>8</b>	<b>Benin, Power Market, Snapshot of Leading Power Company .....</b>	<b>36</b>
8.1	Benin, Power Market, Key Company: Communaute Electrique du Benin .....	36
8.1.1	Communaute Electrique du Benin, Company Overview.....	36
8.1.2	Communaute Electrique du Benin, Business Description.....	36
8.1.3	Communaute Electrique du Benin, SWOT Analysis .....	38
<b>9</b>	<b>Appendix.....</b>	<b>43</b>
9.1	Market Definitions.....	43
9.1.1	Power .....	43
9.1.2	Installed Capacity .....	43
9.1.3	Active Installed Capacity.....	43
9.1.4	Electricity Generation.....	43
9.1.5	Electricity Consumption .....	43
9.1.6	Thermal Power Plant .....	43
9.1.7	Hydropower Plant .....	44
9.1.8	Nuclear Power .....	44
9.1.9	Renewable Energy Resources.....	44
9.2	Abbreviations.....	44
9.3	Bibliography.....	45
9.4	Coverage.....	46
9.5	GlobalData's Methodology.....	46

## Table of Contents

9.5.1 Primary Research and Analysis .....	47
9.5.2 Secondary Research and Analysis .....	47
9.6 Disclaimer .....	48

SAMPLE

## Table of Contents

### 1.1 List of Tables

Table 1: Power Market, Benin, Trends in GDP (\$bn), Population (million) and Annual Power Consumption (GWh), 2007–2017.....	12
Table 2: Power Market, Benin, Annual Power Consumption (GWh), 2012 .....	19
Table 3: Power Market, Benin, Cumulative Installed Capacity by Type of Power Plant (%), 2012.....	23
Table 4: Power Market, Benin, Cumulative Installed Capacity (MW) and Annual Power Generation (GWh), 2000–2030 .....	26
Table 5: Power Market, Benin, Leading Thermal Power Plants (MW), 2012.....	27
Table 6: Power Market, Benin, Cumulative Installed Thermal Capacity (MW) and Annual Power Generation (GWh), 2000–2030.....	29
Table 7: Power Market, Benin, Cumulative Installed Hydropower Capacity (MW) and Annual Power Generation (GWh), 2000–2030.....	32
Table 8: Power Market, Benin, Future Transmission Expansion Plan, 2012.....	35
Table 9: Communaute Electrique du Benin, SWOT Analysis .....	38
Table 10: Abbreviations .....	44

### 1.2 List of Figures

Figure 1: Power Market, Benin, Trends in GDP (constant prices) (\$bn), Population (million) and Annual Power Consumption (GWh), 2007–2017.....	11
Figure 2: Power Market, Benin, Installed Capacity Share of Major Power Generating Companies (%), 2012 .....	17
Figure 3: Power Market, Benin, Annual Power Consumption (GWh), 2012 .....	18
Figure 4: Power Market, Benin, Energy Consumption Breakup by Sector (%), 2012 .....	20
Figure 5: Power Market, Benin, Cumulative Installed Capacity by Type of Power Plant (%), 2012.....	23
Figure 6: Power Market, Benin, Cumulative Installed Capacity (MW) and Annual Power Generation (GWh), 2000–2030 .....	25
Figure 7: Power Market, Benin, Cumulative Installed Thermal Capacity (MW) and Annual Power Generation (GWh), 2000–2030.....	28
Figure 8: Power Market, Benin, Cumulative Installed Hydropower Capacity (MW) and Annual Power Generation (GWh), 2000–2030.....	31

## Introduction

### 2 Introduction

Benin is an underdeveloped country with poorly developed infrastructure and low exploitation of national resources. It has a republican form of government and is a member of international organizations such as the Economic Community of Western African States, the United Nations, and the United Nations Industrial Development Organization.

Benin had an estimated Gross Domestic Product (GDP) of \$XX billion (at current prices), in 2012, and registered a GDP growth rate of about XX% in the same year. The services sector is estimated to have contributed the majority share towards GDP in 2012, with XX%, followed by the agricultural sector, with XX%, and the industrial sector, with XX%. In Benin, the economy is mainly driven by the cultivation of cotton products and regional trade. However, the trade is not substantial enough to drive the growth of the economy, and, historically, its GDP growth has averaged about 4%. Nevertheless, the situation is expected to improve once the modernizing and diversifying strategies aimed towards agriculture and trade are implemented by the government.

Benin currently does not have sufficient natural resources to support its energy demands and, as a result, imports thermal fuels to meet its domestic needs. Benin's dependence upon fossil fuel and electricity imports is adding to its expenditure and has resulted in increased electricity prices.

The power sector of Benin is not liberalized and there is no private participation. The *Ministère de l'Energie et de l'Eau* (MEE), or Ministry of Energy and Water, is responsible for the regulation of the power sector. The power sector has not yet been unbundled or privatized. Responsibility for power generation rests with the *Communauté Electrique du Bénin* (CEB), or Benin Electricity Community, which is a state-owned utility, co-owned by Benin and Togo. Generation is also undertaken by the *Société Beninoise d'Électricité et d'Eau* (SBEE), or Benin National Power Utility. The SBEE is also responsible for power transmission and distribution.

## Introduction

### 2.1 GlobalData Report Guidance

- The report opens with an executive summary capturing key growth trends in Benin's power market.
- Chapter three provides a snapshot of Benin's power market.
- Chapter four provides a market analysis, including the supply and demand structure of the Benin power market.
- Chapter five provides a brief description of the prominent policies influencing the future of the power market.
- Chapter six provides information regarding cumulative capacity and power generation information, as well as segmentation according to source of energy from 2000 to 2012, with forecasts to 2030. It also includes details of leading active and upcoming power plants, differentiated according to source of energy.
- Chapter seven provides information on the power infrastructure in Benin, as well as existing and planned developments in transmission and distribution infrastructure, and cross-country interconnections.
- Chapter eight provides complete descriptions and SWOT analyses of the leading power generating companies.

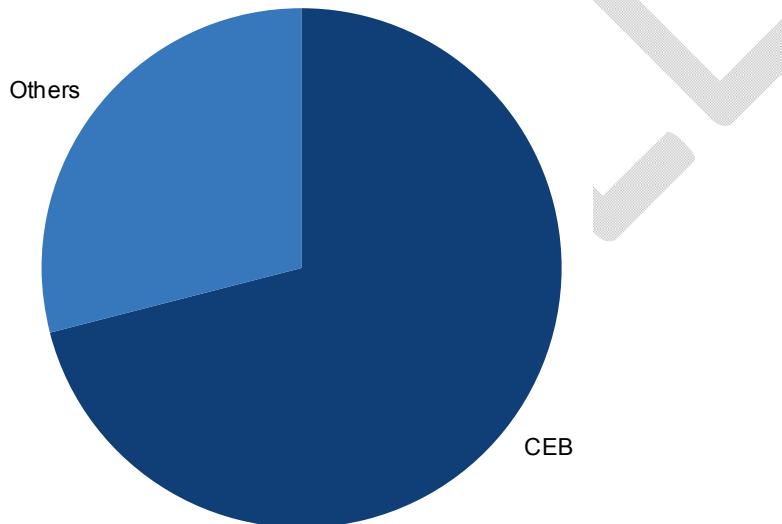
Note: From 2012 onwards this report provides actual or estimated data depending upon information available at the time of writing.

## Benin, Power Market Analysis

### 4.2 Benin, Power Market, Key Players

The CEB is the largest power generating company in Benin. It generates power mainly through thermal resources. The CEB was originally the only entity in Benin responsible for power generation before 2006 and accounted for XX% of the power generation market. In 2012, the CEB's share in Benin's installed capacity accounted for XX%. The remaining share of the power generation sector is controlled by the SBEE.

Figure 2: Power Market, Benin, Installed Capacity Share of Major Power Generating Companies (%), 2012



Source: GlobalData

## Benin, Power Market Analysis

## 4.3 Benin, Power Market, Demand Structure

Electricity consumption in Benin was estimated to be XX GWh in 2012, as compared with XX GWh in 2000. During the same period, the consumption grew at a CAGR of XX%. However, during the 2013–2030 forecast period, electricity consumption is expected to grow at a CAGR of XX%, increasing from XX GWh to XX GWh. Power demand and consumption has witnessed a steady growth because of the increase in population and the increase in the electrification rate. The electrification ratio in 2002 was XX%, which increased to XX–XX% in 2012. However, rural areas did not derive much benefit, and rural electrification rates remained at about XX%.

Figure 3: Power Market, Benin, Annual Power Consumption (GWh), 2012



## Benin, Power Market Analysis

Table 2: Power Market, Benin, Annual Power Consumption (GWh), 2012

Year	Annual power consumption (GWh)
2000	
2001	
2002	
2003	
2004	
2005	
2006	
2007	
2008	
2009	
2010	
2011	
2012	
2013	
2014	
2015	
2016	
2017	
2018	
2019	
2020	
2021	
2022	
2023	
2024	
2025	
2026	
2027	
2028	
2029	
2030	

Source: GlobalData, Power eTrack, Consumption Database [Accessed on: July 29, 2013]

## Appendix

### 9 Appendix

#### 9.1 Market Definitions

The geographical coverage of the report is Benin. The report covers market segments related to installed electricity capacity, generation, consumption, and power infrastructure and regulations. The report covers the whole of Benin for a quantitative and qualitative assessment of its power market.

##### 9.1.1 Power

The rate of production, transfer, or energy use, usually related to electricity. Measured in watts and often expressed in kilowatts (kW) or Megawatts (MW). This is also known as "real" or "active" power.

##### 9.1.2 Installed Capacity

Installed capacity refers to the generator's nameplate capacity (as stated by the manufacturer) or the maximum rated output of a generator under given conditions. Installed capacity is given in MW on a nameplate affixed to the generator.

##### 9.1.3 Active Installed Capacity

Active installed capacity refers to the component of electric power that actually performs work. It is given in kW or MW.

##### 9.1.4 Electricity Generation

The production of electric energy, achieved through the transformation of other forms of energy. Also refers to the amount of electric energy produced, expressed in Gigawatt-hours (GWh).

##### 9.1.5 Electricity Consumption

Consumption of electricity calculated as generation, plus imports, minus exports, minus transmission and distribution losses and measured in Gigawatt-hours (GWh).

##### 9.1.6 Thermal Power Plant

A plant in which turbine generators are driven by burning fossil fuels.

## Appendix

### 9.1.7 Hydropower Plant

A plant in which turbine generators are driven by falling water.

### 9.1.8 Nuclear Power

The electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

### 9.1.9 Renewable Energy Resources

Naturally replenishing energy resources limited in the amount of energy that is available per unit of time. For example, biomass, geothermal, solar, and wind are all renewable resources.

## 9.2 Abbreviations

Table 10: Abbreviations

Full form	Abbreviations
Compound Annual Growth Rate	CAGR
Combined Cycle Gas Turbine	CCGT
Communauté Electrique du Bénin	CEB
Concessions for Rural Electrification	CRE
Gross Domestic Product	GDP
Gigawatt Hours	GWh
Kilovolt	kV
<i>Ministère de l'Energie et de l'Eau</i>	MEE
Megawatt	MW
<i>Société Beninoise d'Electricité et d'Eau</i>	SBEE

Source: GlobalData

## Appendix

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### 9.4 Coverage

This report gives detailed information on Benin's power market. It examines Benin's power market structure and provides historical and forecast numbers for generation, capacity and consumption, up to 2030. The report provides insights on the market's regulatory structure, import and export trends, competitive landscape and leading active and upcoming power projects. The report also provides a snapshot of Benin's power sector by analyzing the power sector of Benin on broad parameters of macro-economics, supply security, generation infrastructure, transmission infrastructure, degree of competition, regulatory scenario and future potential.

### 9.5 GlobalData's Methodology

GlobalData's dedicated research and analysis teams consist of experienced professionals with marketing, market research and consulting backgrounds in the energy industry and advanced statistical expertise.

GlobalData adheres to the codes of practice of the Market Research Society ([www.mrs.org.uk](http://www.mrs.org.uk)) and the Strategic and Competitive Intelligence Professionals ([www.scip.org](http://www.scip.org)).

The following research methodology is followed for all country outlook reports.

## Appendix

### 9.5.1 Primary Research and Analysis

Secondary research is further complemented through primary interviews with industry participants to verify and fine-tune the market numbers obtained through secondary research and get first-hand information on industry trends.

The participants are drawn from a diverse set of backgrounds, including equipment manufacturers, industry associations, government bodies, utilities, distributors, and academia. The participants include, but are not limited to, C-level executives, industry consultants, academic experts, business development and sales managers, purchasing managers, plant managers, government officials, and industry spokespeople.

### 9.5.2 Secondary Research and Analysis

The capacity, generation and consumption data is collected and validated using a number of secondary resources, including, but not limited to:

- Government agencies, ministerial websites, industry associations, the World Bank, statistical databases
- Company websites, annual reports, financial reports, broker reports and investor presentations
- Industry trade journals, market reports and other literature
- GlobalData's proprietary databases Capacity and Generation Database, Power Plant Database and Transmission and Distribution Database

Further to this, the following secondary information is collected and analyzed to project Benin's power market scenario through to 2030, analyzing factors such as:

- Benin's macro-economic scenario
- Government regulations, policies and targets
- Government and private sector investments
- Contract and deal announcements
- Utility expansion plans
- The sector's historic track record

## Appendix

- Other qualitative insights built through secondary research and analysis of company websites, annual reports, investor presentations, industry and trade journals, and data from industry associations.

### 9.6 Disclaimer

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