

## Electricity Sub-Sector Industry

### INDUSTRY FACT FILE

Electricity Industry growth <sup>1</sup> (2013):	5.3 %
Electricity Industry share of GDP (2013):	1.6 %
Electricity, Gas & Steam Share of FDI inflows <sup>2</sup> (2013):	(2.2)%
Return on Equity of FDI in Electricity, Gas & Steam (2013):	19.1 %
Major energy sources:	Water & Coal
Number of employed persons in Electricity, Gas, Steam and Air Conditioning Supply <sup>3</sup> :	12, 211
Informal share of employed persons in Electricity, Gas, Steam...industry:	8.5 %
Female share of employed persons in Electricity, Gas, Steam...industry:	21.2 %
Electricity, Gas, Steam...industry Share of Labour Force:	0.2 %
Average wages in Industry (2012):	ZMW 3,433.6 (USD 660)
Total Domestic Electricity Consumption in GWh (2013):	10, 845
Total Electricity Exports in GWh (2013):	1,083.4
Regional Demand -Electricity imports by regional country in GWh (2012):	
South Africa	- 10, 000
Mozambique	- 8, 300
Botswana	- 3, 400
Namibia	- 2, 500
Zimbabwe	- 1, 200

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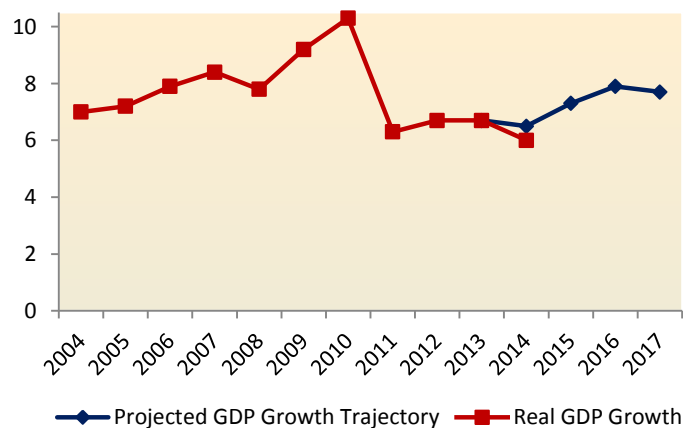
### Brief Overview

This Investment brief presents a profile of the Electricity Sub-Sector Industry in Zambia. The objective of the brief is to provide quick insights on the Zambian economy and the existing investment opportunities in the electricity industry.

### Macroeconomic Outlook –Economic Slowdown

Real economic growth which averaged 7.8% between 2004 and 2013 is showing signs of a slowdown. Growth slowed to 6% in 2014, weaker than 6.5% projected for the year 2014 and 0.7% lower than the economic growth realised in 2013.

Figure 1: GDP growth rates in percentages at constant prices, 2004-2017



Source: CSO and Ministry of Finance

With the lower copper prices on the international markets underpinned by the weakening growth in emerging markets, particularly in China, indications are that Zambia's growth is expected to remain

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positive albeit at slower rates over the medium to long-term. The Fitch Credit rating agency forecasts an economic growth of 5.3% in 2015 from 6% realised in 2013.

### **Weakening Business Environment**

Although Zambia has made significant strides in improving the business environment, the country moved down four places on the World Bank Doing Business Index to rank 111 out of 189 economies in 2015 from 107 in 2014. This was largely due to the increase in the Property Transfer Tax rate from 5% to 10% which made transferring property more costly.

**Table 1: Ease of Doing Business Rank in Zambia (out of 189 economies), 2014 and 2015**

Topics	DB 2015 Rank	DB 2014 Rank	Change in Rank
<a href="#">Starting a Business</a>	68	72	↑ 4
<a href="#">Dealing with Construction Permits</a>	99	102	↑ 3
<a href="#">Getting Electricity</a>	126	126	No change
<a href="#">Registering Property</a> X	152	106	↓ -46
<a href="#">Getting Credit</a> ✓	23	30	↓ 7
<a href="#">Protecting Minority Investors</a>	83	81	↓ -2
<a href="#">Paying Taxes</a> ✓	78	80	↓ 2
<a href="#">Trading Across Borders</a>	177	177	No change
<a href="#">Enforcing Contracts</a>	98	98	No change
<a href="#">Resolving Insolvency</a>	95	95	No change
<b>Doing Business Rank</b>	<b>111</b>	<b>107</b>	<b>↓ -4</b>

✓ =Doing Business reform making it easier to do business.

X =Change making it more difficult to do business.

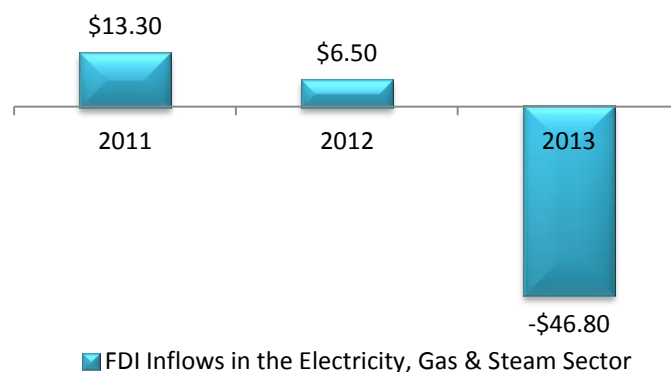
Source: World Bank

In addition, getting electricity; registering property and trading across borders remain as major constraints to doing business in Zambia. Particularly, getting electricity is a constraint in part due to the number of procedures required to obtain a permanent electricity connection in Zambia which is greater than the average of Sub-Saharan and OECD countries.

### **Flows of Foreign Direct Investment in the Energy Sector**

Overall Foreign Direct Investments (FDI) increased to USD 2.1 billion in 2013 from USD 1.7 billion registered in 2012. While the Mining and Manufacturing sector continued to dominate FDI inflows in 2013 at 65.5% and 21.1% respectively, the Electricity, Gas and Steam sector recorded a net outflow of USD 46.8 million, about -2.2% of FDI inflows. Nevertheless, investments in the sector remain lucrative with the sector recording the second highest Return on Equity estimated at 19.1 % in 2013.

**Figure 2: Foreign Direct Investment Inflows in the Electricity, Gas and Steam Sector (US\$ millions)**



Source: Foreign Private Investment & Investor Perceptions in Zambia - 2014

### **Stable Political Landscape**

Zambia is a young, peaceful, democratic and politically stable country. Although the 2014 Global Peace Index ranked Zambia as the 44th safest country in the world, Zambia was among the countries identified as most at risk of small to medium deteriorations in peace. Notwithstanding this assessment, in January 2015, the country held a peaceful Presidential By-Election which saw the incumbent party retain power.

## Policies, Strategies and National Plans to boost the Energy Industry

### *Vision 2030*

Zambia's long term development plan is anchored on the Vision 2030 whose vision for the energy sector is to achieve universal access to clean, reliable and affordable energy at the lowest total economic, financial, social and environmental cost. Zambia targets to develop an export led energy industry, increased renewable alternative sources of energy; and reduce the share of wood fuel for energy needs to 40 percent by 2030.

### *Revised-Sixth National Development Plan (R-SNDP)*

The R-SNDP is the country's medium-term development plan covering the period 2013 to 2016. The energy sector has been identified as one of the main investment areas that will facilitate the envisaged economic growth and development goals of the plan. Over the period, Government plans to increase power generation capacity through the upgrade and construction of new hydro-power stations, and the use of alternative energy sources.

### *The Energy Regulation Act*

The energy sector is governed by the Energy Regulation Act, Cap 436 of the laws of Zambia. This Act repealed the National Energy Council Act and the Zambia Electricity Supply Act and established the Energy Regulation Board. The Board is responsible for balancing the needs of investments with that of energy consumers, the licensing of undertakings in the energy sector and monitoring the efficiency and performance of undertakings.

### *The Electricity (Amendment) Act*

The Electricity Act Cap 433 of the Laws of Zambia was amended in 2003. The Act regulates the

generation, transmission, distribution and supply of electricity and provides for matters related to the foregoing.

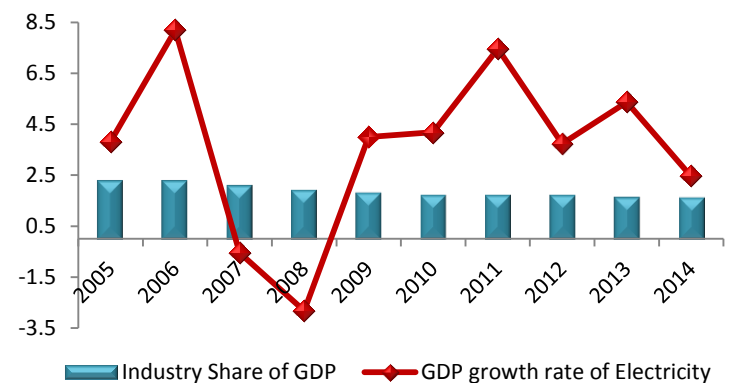
## Evolution of the Electricity Industry

Before the liberalisation of the energy sector, the electricity supply industry in Zambia was predominantly a monopoly market, run by a single state owned company - the Zambia Electricity Supply Corporation Limited (ZESCO). Through an Act of Parliament in 1995, the sector was liberalised to attract private sector participation. To promote this policy, the Energy Regulation Board (ERB) and the Office for the Promotion of Private Power Investors (OPPI) under the Ministry of Mines Energy and Water Development were set up. These regulate operations and pricing, and promote the entry of new players into the electricity market respectively.

### *Performance of the Electricity Industry*

Real growth of the Electricity<sup>4</sup> sub-sector has been positive, albeit volatile over the last decade. During the former 5 years, the sub-sector recorded its highest growth at 8.2% in 2006 and conversely in 2008, contracted markedly by 2.8%.

**Figure 3: Real growth rates of Electricity and industry share of GDP, 2004-2013 (%)**



Source: Central Statistical Office

Over the last 5 years, growth has been positive and largely been driven by developments in the Agriculture, Manufacturing, Construction, Transport and Financial sectors which are supported by energy. Over the same period, the share of the Electricity sub-sector of GDP reduced marginally between the years 2005 and 2009 and remained flat from the year 2010 to 2014.

## Access to Electricity in Zambia

According to information gathered by the state-owned power utility company ZESCO in 2009, the degree of electrification in Zambia is very low.

- i. The proportion of the population with direct access to grid electricity was 22%;
- ii. The proportion of the population with direct access to isolated electric systems was 0.03%; and
- iii. The proportion of the population with no access to electricity at all was estimated at 77.97%.

By 2013, the electrification rate was estimated at 25%.

## Structure of the Electricity System in Zambia

There are three major players in the electricity industry in Zambia: ZESCO, a vertically integrated parastatal company which generates, transmits, distributes and supplies electricity throughout Zambia; Copperbelt Energy Corporation (CEC), a net transmitter of electricity purchased from ZESCO at high voltage and distributed to the mining industry on the Copperbelt; and Lunsemfwa Hydro Power Company, an independent power producer generating 48 MW of power that it sells to ZESCO Limited under a Power Purchase Agreement.

Other participants in the industry include the Rural Electrification Authority, small-scale generators and solar based energy services companies.

### *Case Study: North Western Energy Corporation*

**North Western Energy Corporation Limited (NWECC) owns and operates distribution and supply systems that provide electricity to serve the non-mining load of Lumwana Mine and the surrounding areas in Lumwana town, in North Western Province of Zambia. Since 2008, NWECC has been supplying electricity to the residential houses of the Lumwana mine and the surrounding communities. In 2013, the Utility's customer base increased to 864 from 828 customers recorded in 2012, representing a growth of 4.3%. Over the same period, electricity sales increased by 23.2% while revenues increased by 16.2%.**

**Kalumbila and Kabitaka were the major projects planned by NWECC to be commissioned in 2014. Collectively, the projects were estimated at a cost of US\$3million. Once completed, these projects are expected to supply power to firstly 1,000 households under First Quantum Minerals Limited. In addition, NWECC plans to expand its operations in 2014 and beyond as a result of the many potential areas for possible rural electrification within North Western Province.**

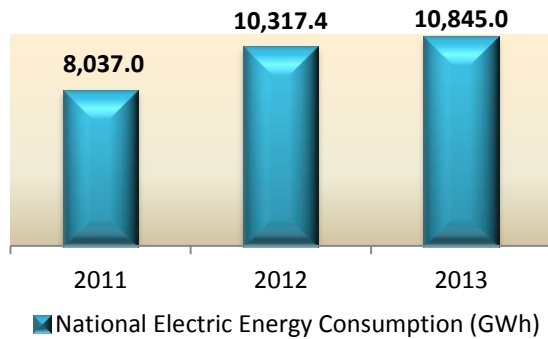
*Source: Energy Sector Report, 2012 and 2013.*

## Opportunities for Investment in the Electricity Sub-Sector

### *Domestic Electricity Demand*

In tandem with the economic growth, Zambia's domestic electricity consumption increased by 5% between the years 2012 and 2013 from 10, 317.4 GWh in 2012 to 10, 845 GWh in 2013. The increase in consumption was even greater between the years 2011 and 2012, estimated at 28%. Electricity Consumption increased from 8, 037 GWh in 2011 to over 10, 000 GWh in 2012.

**Figure 4: National Electric Energy Consumption (GWh)**



Source: *Energy Sector Report, 2012 and 2013*

### Electricity Consumption by Economic Sector

The largest domestic electric consumption is in the Mining sector. The Mining sector accounts for over 50% of total electric consumption in Zambia.

**Table 2: Consumption of Electric Energy by Economic Sector**

Sectors	2012 (GWh)	2013 (GWh)	Share of Total Consumption in 2012	Share of Total Consumption in 2013
Mining	5,554.4	5,929.1	53.8%	54.7%
Domestic	3,187.2	3,360.8	30.9%	31.0%
Finance and Property	434.0	499.7	4.2%	4.6%
Manufacturing	506.0	397.1	4.9%	3.7%
Agriculture	244.5	270.3	2.4%	2.5%
Others	117.5	120.9	1.1%	1.1%
Trade	136.7	115.8	1.3%	1.1%
Energy and Water	81.8	71.0	0.8%	0.7%
Quarrying	19.1	35.0	0.2%	0.3%
Transport	23.7	28.3	0.2%	0.3%
Construction	12.7	17.5	0.1%	0.2%
<b>Total</b>	<b>10,317.4</b>	<b>10,845.7</b>	<b>100.0%</b>	<b>100.0%</b>

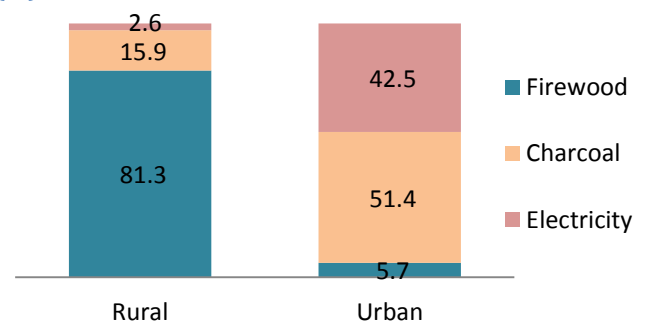
Source: *Energy Sector Report, 2012 and 2013*

This is followed by domestic users who consumed 31% of total consumption in Zambia in 2013. Electric energy consumption in other sectors is relatively small. Notably, most economic sectors saw positive changes in their share of electric energy consumption which suggests a growing demand for electric energy.

Furthermore, there is an additional potential demand from the 2.1 million households using firewood and charcoal as sources of energy for cooking. According to the Living Conditions and Monitoring Survey (LCMS) of 2010, households predominantly use firewood and charcoal for cooking. Specifically, 4 in 5 households in rural areas use firewood for cooking while 1 in 2 households in the urban areas use charcoal for cooking.

These households present investors with an opportunity to invest in renewable alternative sources of energy such as geothermal, solar and biomass which if made affordable, would have a readily available market demand.

**Figure 5: Main Sources of Energy for Cooking, 2010 (%)**



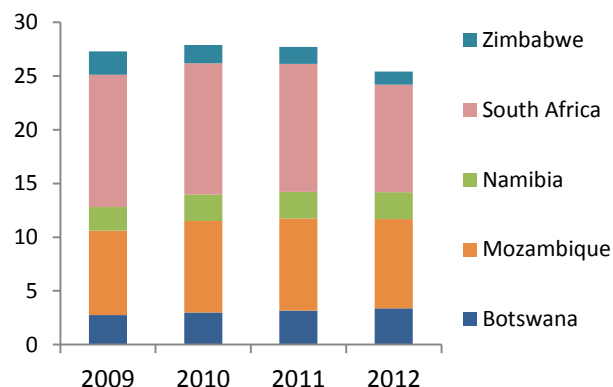
Source: *2010 LCMS*

### Regional Market Demand

There are a number of countries in the region that can absorb Zambia's increased investments in electricity generation. South Africa has the highest

demand and imported 10 billion KWH in 2012. Mozambique offers the second largest demand in the region with imports of 8.3 billion KWH in 2012. Collectively, in 2012, the selected five countries provide an estimated demand of 25.4 billion KWH.

**Figure 6: Total Electricity Imports of Selected Countries (Billion Kilowatt-hours)**



Source: US Energy Information Administration

Zambia's installed electricity generation is estimated at about 2,000 Megawatts (MW) of which, of which about 1,900MW is hydropower. With the abundant water resources estimated at 40% of water resources in Southern Africa, Zambia has a potential capacity to generate 6,000 MW of hydro power. This provides investment opportunities in hydro electricity generation to meet both the domestic and regional demand. Table 2 depicts selected investment opportunities in hydro power generation.

### Investment in Solar and Geothermal Energy

The National Energy Policy estimates the potential energy output per unit area at 5.5kWh/m<sup>2</sup>/day (Walimwipi, 2012). With an average of 2001-3000 hours of sunshine per year (ZDA, 2014), this provides opportunities for solar energy generation and investments in the local production of the requisite solar system equipment such as solar panels.

Furthermore, Zambia also has more than 80 identified hot springs which provide opportunities for investment in geothermal energy which has remained largely untapped.

**Table 2: Selected Investment Opportunities in the Electricity Sub-Sector**

Description	Capacity (MW)	Estimated Project cost (\$ million)	Status
Kafue Gorge Lower	600	1,500	Open for investment
Batoka Gorge	1,600	2,500	Open for investment
Kalungwishi River	210	600	Open for investment
Devil's Gorge	1,200	1,450	Open for investment
Lusiwasi Extension	40	100	Open for investment
Mpata Gorge	500	839	Open for investment
Luapula River (Mambilima)	850	2,500	Open for investment

Source: Zambia Private Sector Profile

### Investment in Mini Hydro Power Plants

Smaller rivers particularly in the Northern and the North-Western provinces provide opportunities for local small-scale investment in hydro electrical power generation. Some of the plans under the Rural Electrification Master Plan include the establishment of a number of additional off-grid hydro projects namely: Chavuma - 15 MW; Chikata Falls - 3.5 MW; West Lunga - 2 MW; Mwinilunga - 1.5 MW and Chitokoloki Mission - 0.15 MW (Walimwipi, 2012).

### Investments in Bio-Fuels

Zambia has an estimated arable land of 42 million hectares of which only 1.5 million hectares is



cultivated each year. In addition, the country has a large reservoir of water resources and a favourable climate suitable for the cultivation of the bio fuel crops such as maize corn, sorghum and sugarcane. Zambia therefore has sufficient biomass resources that can support electricity generation of approximately 500 MW of which: 447 MW would be fuelled by agricultural waste; 46 MW from forest waste; and 4 MW from municipal waste (Walimwipi, 2012).

### ***Bio Fuel Success Story: The Case of Zambia Sugar***

Zambia Sugar Plc is Zambia's leading sugar producer. The company cultivates sugar cane and manufactures Vitamin A-enriched raw and refined sugar under the Whitespoon brand name for local consumer markets and industrial customers. Following a major agricultural and factory expansion project completed in 2009, total annual sugar production capacity increased from around 200 000 tons to 450 000 tons. The company is listed on the Lusaka Stock Exchange with 82% of shares held by the Illovo group and the balance by institutional and private investors.

In addition to sugar production, the company undertakes internal electricity generation. A low-pressure combustion system is employed at Nakambala sugar plantation in Mazabuka. The system uses 400,000 tonnes of bagasse (the fibrous matter that remains after sugarcane or sorghum stalks are crushed to extract their juice) from sugar cane production to produce an average of 17 MW of electricity.

### ***Investments in Coal Energy***

Similarly, coal remains an important source of energy for the mines and industry. There is potential for the exploration of coal deposits and Coal Bed

Methane within the proven and potential coal reserves. With the regional power deficit, Coal could become a major source of power generation especially with improved and more efficient generation technology (ZDA, 2014).

### ***Coal Energy Venture: The Case of Maamba Coal Fired Power Station***

Maamba Collieries Limited (MCL) is the largest coal mining company in Zambia located in Sinazongwe district of Southern Province. ZCCM-IH, an undertaking of the Republic of Zambia holds 35% shares in the company while the remainder, 65% is owned by Nava Bharat. The Mine has total estimated reserves of 140 million tonnes comprising high grade and thermal grade coal.

MCL is constructing a US\$ 800 million coal-powered thermal electricity generation plant with a capacity of 300MW. The low grade coal, a by-product of mining at MCL will be used as a fuel for thermal power generation. By end September 2014, about 70% of the 2 x 150 MW power plants had been constructed and the second power plant is expected to be commissioned in 2015. The company is also constructing a 330 KV double circuit transmission line from Maamba to Muzuma sub-station owned by ZESCO Limited. MCL is expected to supply the Zambian population through ZESCO by offloading its power into the national grid. The Company envisages increasing the capacity to 600MW in the second phase contingent on increased demand for power in the region.

## **Strengths, Weaknesses, Opportunities and Threats in the Energy Industry**

### **STRENGTHS**

#### ***Abundant Resources for Energy Generation***

Zambia has vast resources of water estimated at 40% of all water resources in Southern Africa. This provides adequate resources for hydro power generation investments. In addition, the country has

an estimated 780 million tonnes of coal deposits. Further, the country has a climate favourable for solar electricity generation, bio fuel and others forms of renewable energy.

### ***Increased Value Addition in the Sector***

Growth has been positive in the Electricity, gas, steam and air conditioning sector over the last six years with value added output increasing from K1.5 billion in 2008 to K2 billion in 2014. At the same time, the number of persons employed in the energy sector increased from 8,534 in 2008 to 12,211 in 2012.

## **WEAKNESSES**

### ***Monopoly Power by the State-owned Power Utility, ZESCO***

ZESCO is a state-owned power utility company and the largest player in electricity supply industry in Zambia. The ZESCO distribution is divided into 4 divisions namely the North, South, Copperbelt and Lusaka and 16 Regions, and is wholly owned by ZESCO Limited with a presence in all the provinces of Zambia. In addition, there are only two companies with transmission licenses, ZESCO and CEC and the former owns the bulk of the transmission system. As a result, most of the investment opportunities in electricity power generation require a public-private partnership with ZESCO.

This presents a challenge with regard to the pricing of tariffs if power will have to be sold to ZESCO for onward distribution and supply. Early in 2015, ZESCO made a proposal to freeze domestic consumer tariffs for two years and this proposal was subsequently approved by the President of Zambia. This limits the flexibility of investors to adjust domestic consumer tariffs.

Compounding this is that in 2006, the ERB commissioned a Cost of Service Study (CoS) for

ZESCO to determine the cost incurred in generating, transmitting, distributing and supplying electricity. Findings from the CoS revealed that tariffs for all of ZESCO's customers were below cost (ERB, 2013). However, between 2008 and 2014, there have been 5 tariff reviews during which ZESCO has sought to increase tariffs towards cost reflectivity.

### ***Poor Road Infrastructure in Potential Project Areas***

Zambia has under-developed road and rail infrastructure. Traditionally, infrastructure has been concentrated along the line of rail that runs through the Copperbelt, Central, Lusaka and Southern provinces. If potential project areas with water resources are not reachable, this presents challenges for investments in hydro power. Notably, Government has embarked on an ambitious road program dubbed Link Zambia 8000 that will open the country to different markets.

### ***Sparsely Populated Country***

Densely populated districts in Zambia are typically clustered in districts along the line of rail in the Copperbelt, Central, Lusaka and the Southern provinces. The largest proportion of districts in Zambia, are sparsely populated with population densities of less than 10 persons per square kilometre. In 2010, the overall national density was estimated at 17.4 persons per square kilometre.

With low population densities and urbanization rates, grid extension is not likely to be cost-effective for providing access to electricity for a large part of the population. However, mini grids offer a viable solution to this problem. Mini grids that can supply electricity from mini hydro plants can provide lower-cost electricity, particularly when located in areas with substantial rainfall and rivers. Mini grids using diesel generators can provide electricity quickly but with high operational costs.



## SWOT SUMMARY

### STRENGTHS

- *Abundant water sources for energy generation*
- *Increased value addition in the energy sector*

### WEAKNESSES

- *Monopoly power by the state-owned power utility, ZESCO*
- *Poor road infrastructure in potential project areas*
- *Sparsely populated country*
- *Low income population*

### OPPORTUNITIES

- *High domestic demand for electricity*
- *Regional demand for electricity*
- *Government support (fiscal and non-fiscal incentives)*

### THREATS

- *Foreign exchange volatility and external commodity price shocks*
- *High cost and limited access to long-term finance*

### **Low income population**

Although Zambia is classified as a lower middle income country, inequality is high with a Gini Coefficient estimated at 0.65. In 2012, Zambia's employed population recorded average monthly earnings estimated at K759. This low level of income precludes investors effective demand for electricity as evidenced by the high proportion of the population using firewood and charcoal as sources of energy for cooking.

However, average incomes in the formal sector are relatively higher and were estimated at K2, 350 in 2012. In addition, the strong economic growth and emergence of a middle class provides a growing buoyant energy demand for both domestic and industry consumption.

### **OPPORTUNITIES**

### **Domestic Demand for Electricity**

Zambia has a high demand for energy of which electricity demand has been growing annually at 3% on average. This growth has been driven by both domestic consumption demand and economic activities in key sectors of the economy namely mining, manufacturing, and agriculture.

As at 2014, Zambia's electricity supply was estimated at 75% of the total demand. Power deficit is estimated between 547 and 736 megawatts and load-shedding is used as a temporary electricity rationing measure.

### **Regional Demand for Electricity**

The Southern African Power Pool that comprises Botswana, DRC, Lesotho, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe is estimated to have a growth rate of electric power consumption of 5% per annum on average. The

regional demand is projected to reach 80,000 MW per annum by 2015 up from the current 50, 000 MW.

Notable is the Memorandum of Understanding (MoU) that was signed in December, 2014 by Zambia, Tanzania and Kenya for the construction of a 400 KV power interconnector. The Zambia-Tanzania-Kenya power interconnector project is expected to link the Eastern African Power Pool (EAPP) to the Southern African Power Pool (SAPP).

The objective of the project is to facilitate trade in power in order to reduce average energy production costs; offer improved reliability and security for power supply to both Southern and Eastern Africa; and meet the immediate and future power demand. It is envisaged that the project will be completed in phases between 2016 and 2018 and the three countries will be linked by power transmission lines of over 1, 600 km.

### **Government Support**

Energy and water development has now been declared a priority sector by Government. To this effect, the ZDA Act was amended to allow power plants to be built for power generation from various sources of energy including hydro, thermal and solar to qualify for tax concessions.

Government now provides fiscal and non-fiscal incentives under the ZDA Act to investors who invest not less than US\$500,000 in the building and installation of power stations. This is in an effort to attract independent power producers and increase generation capacity in Zambia to meet the growing demand for power.

### **FISCAL INCENTIVES:**

- i. Zero percent tax rate on dividends for 5 years from year of first declaration of dividends;*
- ii. Zero percent tax on profits for 5 years from the first year of operation; and*
- iii. Zero percent import duty rate on capital goods, machinery including specialized motor vehicles for five years.*

### **NON- FISCAL INCENTIVES:**

- i. Investment guarantees and protection against state nationalization; and*
- ii. Free facilitation for application of immigration permits, secondary licenses, land acquisition and utilities*

### **THREATS**

#### ***Exchange rate volatility and external commodity price shocks, (copper price fluctuations)***

The kwacha has experienced high volatility in the first quarter of the year 2015 and depreciated to an all-time high of K7.74/\$ in March of 2015. This has triggered uncertainty in exchange rate developments thereby presenting businesses challenges in planning.

Furthermore, commodity prices on the international markets have been falling including copper prices which dominate Zambia's exports. This exposes Zambia to external commodity price shocks. The slump in copper prices entails less export earnings and subsequently contributes to the depreciation of the kwacha.

#### ***High cost of and limited access to long-term finance***

The local high interest rates and short term financing has limited investments into intensive capital projects such as electricity generation. In 2012, the

Central Bank introduced the BOZ Policy Rate to better effect monetary policy which led to the reduction in commercial bank lending rates to an average of 16% in 2012 from as high as 28%.

However, the pass-through inflationary effects of the recent depreciation of the kwacha in the first quarter of the year 2014 led to an upward revision in the BOZ policy rate and consequently interest rates. Currently, the BOZ Policy Rate stands at 12.5% and in December, 2014, bank lending interest rates average 20.5%.

### ***Uncertainty in the regulatory framework***

Government policies have often been implemented without the full consultation of the private sector. This has led to uncertainty and reduced investor confidence. Nonetheless, more efforts are being done to engage the private sector through the Business Council forum that includes Government and a consortium from the private sector.

### **Roles of Key Stakeholders in the Electricity Industry**

#### ***Ministry of Mines, Energy and Water Development:***

This Ministry is principal institution with responsibility for energy planning and policy development of the mineral, energy and water sectors. It co-ordinates and implements sector programmes in support of economic growth, poverty reduction and climate resilience.

#### ***Contact Details***

Tel: + 260 211 252666  
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#### ***Energy Regulation Board (ERB):***

The Board is responsible for ensuring that utilities earn a reasonable rate of return on their investments that is necessary to provide a quality service at affordable prices to the consumer. In addition, ERB also ensures that all energy utilities in the sector are licensed, monitors levels and structures of competition, investigates and remedies consumer complaints.

#### ***Contact Details***

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#### ***Zambia Electricity Supply Corporation Limited (ZESCO):***

The Corporation is responsible for the generation, transmission and distribution of electricity in Zambia. In addition, ZESCO's role is to attract new investments into the sector, increase access to electricity in Zambia and develop new technologies such as renewable energy initiatives in Zambia that will ensure sustainability of power supply and the environment.

#### ***Contact Details***

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Email: [zesco@zesco.co.zm](mailto:zesco@zesco.co.zm)  
Address: Great East Road, Stand No.6949, Lusaka  
Website: <http://www.zesco.co.zm>

#### ***Zambia Development Agency (ZDA):***

The focus of the agency is investment promotion and privatization; exports promotion and market development; and micro and small enterprises. ZDA provides investment incentives for businesses investing in priority sectors and provides information on the available investment opportunities.

#### ***Contact Details***

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Website: <http://www.zda.org.zm>

## Other Useful Contacts

### Patents and Company Registration Agency (PACRA)

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Email: [pro@pacra.org.zm](mailto:pro@pacra.org.zm)

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### Zambia Environmental Management Agency (ZEMA)

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Address: Corner of Church and Suez Roads, Plot No. 6975, Ridgeway, Lusaka.

Website: <http://www.zema.org.zm>

### Zambia Public Procurement Agency (ZPPA)

Tel: +260 211 250632/250642

Address: Red Cross House, Angeles Boulevard, Lusaka

Website: <http://www.zppa.org.zm>

### Zambia Revenue Authority (ZRA)

Tel: +260 211 381111

Email: [advice@zra.org.zm](mailto:advice@zra.org.zm)

Address: Kalambo Road, Lusaka

Website: <https://www.zra.org.zm>

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<sup>1</sup> The proportion of the Electricity sub-sector from the Electricity, Gas and Water Industry is estimated at 91%.

<sup>2</sup> FDI flows represent investments in the entire Electricity, Gas and Water Industry

<sup>3</sup> Labour data represents the Entire industry Electricity, Gas, Steam and Air Conditioning industry which is used as a proxy for the Electricity Industry.

<sup>4</sup> Growth rates of Electricity are calculated as a proportion of Electricity, Gas & Water industry GDP growth. According to CSO, the proportion of Electricity is estimated at 91%.