



# 2017 Integrated Report 2017

"Fourth Integrated report - another step forward in promoting transparency in corporate reporting"

# Aerial View

## Financial

## Operational

### Revenue

**K 7.4 bn**

Revenue growth measures how well the Corporation is expanding its business.

2016

K8, 2 bn

10 % ▼

### Return on Capital Employed (ROCE)

**0.25%**

Measures the efficient use of assets to realize a profit for the shareholder.

2016

1%

75 % ▼

### No of Customers

**901,047**

A measure of Customer growth

2016

831, 476

8 % ▲

### Operating Loss

**K 0.3 bn**

The difference between revenues and costs generated by ordinary operations, before deducting interest, taxes, investment gains/losses and other non-recurring items.

2016

K0.137 bn

101% ▼

### Borrowings

**K 12.8 bn**

Measures the organization's long term debt

2016

K12.592bn

2% ▲

### No of Staff

**6,772**

A measure of organizational growth by number of employees

2016

6,791

0.28% ▼

### Exchange Gain/Loss

**K 0.1 bn**

The Increase or decrease in a cash flow caused by a change in the exchange rate of two currencies for foreign denominated transactions.

2016

K0.314bn

79% ▼

### Gearing

**34 %**

A measure of long term debt versus shareholder's funds.

2016

62 %

82% ▼

### Generation

**12,221 GWh**

Measures business growth through the number of Giga Watt hours (GWh) produced.

2016

10,909 GWh

12% ▲

### Net Assets

**K 24.7 bn**

These are the total assets less total liabilities. Also known as owner's equity.

2016

K7.616bn

224% ▲

### Interest Cover (No of Times)

**0.32**

Measures the ability to meet interest expenses on outstanding debt.

2016

0.58

26 % ▼

### Maximum Demand

**2,195 MW**

The highest level of demand recorded on the system during the year.

2016

2,134 MW

3% ▲

### Asset Turnover (No of Times)

**0.16**

is a ratio that measures the efficient use of the company's assets in generating revenue.

2016

0.37

57 % ▼

### Current Ratio

**0.32**

A measure of current assets versus current liabilities.

2016

0.58

26% ▼

### Productivity (Per Employee)

**133 Customers**

A measure of the number of customers versus number of employees.

2016

122 Customers

9 % ▲



Read more about our Key Performance Indicators  
Pages 30 to 31





## Our Report

The ZESCO Board is solely responsible for the integrity of this report. It has been prepared in conformance with the <IIRC> framework and guidance. We confirm that all material matters relating to the year under review (2017) have been addressed in this report sufficiently.

The report was prepared under the supervision of Finance Director. The Directors are responsible for the integrated report as a whole. The audit committee ensures the integrity of the report and has applied its collective mind to its preparation and presentation

Signed

### Chairman

Dr. Mbita Chitala

### Managing Director

Mr. Victor M Mundende

### Finance Director

Mr. Saidi Chimya

### Company Secretary

Mr. McRobby V. Chiwale

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# Who We Are

ZESCO Limited is a vertically integrated company established in 1970. It is involved in Generation, Transmission and Distribution & Supply of electricity.

The Company has a total installed capacity 2,341 MW with 1,861 MW owned by ZESCO, while 360 MW through its subsidiary Kariba North Bank Power Corporation and 120 MW through joint venture Itezhi-Tezhi.

Transmission substations of 102 substations ranging from 66 KV to 330 KV with installed capacity of 15,518 MVA and transmission network lines of 10,541 km and installed capacity of 34,737 MVA.

Distribution lines network system of 44,259 km and installed capacity of 2,824 MVA.



Read more about who we are on  
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# Chairman's Report



“The Board and Management ushered in a new vision, ‘to be the hub of electricity trading in the region by 2025’ that will carry the employees across the value chain to work towards a shared vision.”

**Dr. Mbita Chitala**  
Board Chairperson

## Key highlights

- The 2017 economic recovery is credited to the improved global conditions for growth and eased domestic constraints.
- 2017 had a good bumper harvest coupled with improved electricity generation.
- ZESCO management team, supported by the Board, has engaged mining firms and the shareholder on the issue of coming up with fair but cost reflective tariffs in view of the 75% retail tariff increase that was approved by ERB on 15th May 2017.
- Our customer base grew by 8% growth from 831,476 to 901,047
- We had a set target generation of 10.9 MWh and we generated 12.2 MWh
- All diesel stations were decommissioned in North-Western province following its connection to the national grid.

# Chairman's Report

## Dear Shareholder,

The sub-Saharan Africa (SSA) in 2015 and 2016 was heavily hit by an economic meltdown which was predicated on adverse outcomes of climate change, thereby affecting the electricity industry which was both on the receiving end and carrier of the bug to the rest of the economic sectors of the Region. There is evident economic growth and the forecasts showed an increase of 2.6% in 2017 against the 2016 base of 1.3%. However, the forecasted growth of 2017 was still lower than the population growth by marginal 0.1% therefore creating concern that the economic growth is lagging below the population growth of the Region.

The 2017 economic recovery is credited to the improved global conditions for growth and eased domestic constraints. With the high metal prices and recovery of the agriculture sector, the economic outlook is brighter to the advantage of the electricity industry.

The World Bank forecasts SSA GDP growth of 3.2% and 3.5% in 2018 and 2019 respectively, but remains insignificant to poverty reduction.

Zambia in 2017 had a good bumper harvest coupled with improved electricity generation, and an easing of monetary policy, economic recovery still remained modest with expected marginal GDP increase of 3.8% from 3.6% in 2016. Despite the positive economic scores for 2017, the corporation generated 10% less of revenues in 2016 due to the downward adjustments of mining tariffs.

The corporation's power generation is predominantly hydro and hence very vulnerable to the effects of climate change, the 2015 drought has undoubtedly, changed the cost structures to the detriment of extracting more financial value for our shareholders. The Independent Power Producers (IPPs) have remained our financial nightmares to realizing the much needed returns not until there is parity on tariffs, the suppliers of emergency power emits a similar burden as the cost of procuring power is twice higher than the selling price. To mitigate the effects of this, ZESCO management team, supported by the Board, has engaged mining firms and the shareholder on the issue of coming up with fair but cost reflective tariffs in view of the 75% retail tariff increase that was approved by ERB on 15th May 2017. It is part of our strategic intent as the Board to support any investment that diversifies the Generation Mix as one way of managing the climate change risk.

In order to strengthen the balance sheet of ZESCO, the Board authorized the management team to undertake the project

on Asset Identification, Verification and Revaluation. The project was conducted by two independent consultants covering both core and non-core assets. The revaluation of the assets has since been completed and therefore, the 2017 audited financials carry the new balances; the total asset base has grown from K30 billion to K58 billion. The upward revaluation of the corporation's assets has created a bittersweet effect on our financial metrics, the gearing ratio has exceptionally gone low while the Return on Capital Employed (ROCE) has adversely been reduced. The Board and the management team is positive that ROCE will improve after the conclusion of the Cost of Service Study (CoSS) and subsequent increase of tariffs to cost reflectivity by the Regulator.

Owing to a number of measures instituted by the Board and implemented by the management team such as the revaluation of the corporation's asset base, despite a cost imbalance on electricity purchases, ZESCO's balance sheet has become stronger and offers sufficient flexibility as it allows us to manage the company's gearing and credit perceptions by the market. This consequently gives us the leverage to fund our growth plans and deliver shareholder's value.

## 2017 Performance & Shareholder's Wealth

The Board approved the proposal for an increase in the total number of shares from 200,000 to 2.5 billion for ZESCO Limited which resulted in an increase in authorised share capital to K5 billion at nominal price of K2 per share.

Our customer base grew by 8%. growth from K831,476 to 901,047 is a commitment to the corporation's strategic core value of delivering value to the customers.

Despite having a historical challenge on customer connections which in the 3rd quarter of 2017 stood at 51,532 with estimated cost of K895 million of dismantling the backlog, the number of customer calls through the National Call Centre reduced by 1.2% from 9.1 million calls in 2016 to 9 million calls.

We had a set target generation of 10.9 MWh and we generated 12.2 MWh from all our hydro power stations.

The corporation has continued creating shareholder's value in a more sustainable way, in 2017 all diesel stations were decommissioned in North-Western province following its connection to the national grid. This reduced our generation costs as running diesel stations proved to be expensive. The connection of North western to the national grid opened up business opportunities as we are now better positioned to export to the

nearby towns in Angola.

In parallel, the management team has continued finding new winning formulas of unlocking value of non-core investments, through the Board's approval, Fibrecom was incorporated on 11th August 2017 as a private company limited by shares. This will enable Fibrecom to adopt a working business model that will help to compete favorably with other service providers thereby providing value to the shareholders.

The ZESCO's management team, competently led by the Managing Director Mr. Victor M. Mundende, is steadily managing capital investment, operating expenses and working capital.

## Strategy and Governance

The Board and Management ushered in a new vision, 'to be the hub of electricity trading in the region by 2025' that will carry the employees across the value chain to work towards a shared vision. In the quest of doing first things right, the Board had to replace the tagline "Powering the nation and beyond" to "Powering the nation and the region".

For the year 2017, we adopted a new Strategic direction which is now being rolled out across the Corporation by aligning the strategy to the business units across all directorates. With guidance from the Board, there is a picture of success envisaged towards achieving the vision.

Our new strategic direction was informed by the changing business landscape and Government policies, which are the key issues that guided the development of ZESCO's strategic focus areas.

The four key focus areas are as follows:

- Strengthening our core business
- Delivering value to our customers
- Use of Innovative Technology
- Unlocking the value of non-core investments



## Enhancing Governance

The Board ensures that ZESCO is governed effectively, transparently, with utmost integrity, and in tone with sound corporate governance practices. On transparency the corporation publishes both its financial and other non-financial information through the annual Integrated Reports (IR); the International Integrated Reporting Council (IIRC) Framework is used in the development of the IR, the framework looks at the six capitals namely;



Financial



Manufactured



Intellectual



Human



Social and  
Relationship



Natural

## Outlook

ZESCO's business outlook is in line with the Government's projections which are;

- Growth in demand will increase between 150MW and 200MW per annum
- The peak demand for electricity in the country is likely to be 3000MW by 2021
- Demand for electricity is expected to increase to over 3525MW in 2030
- Installed capacity expected by 2021 to increase to 2971MW

The sustainability of the business will require that there is optimum interactions of the six capitals in our business model that drive much needed shareholder's value. Certain practices such as good corporate governance, risk assessment and management will have to continue being part of the organizational culture. The corporation has adopted the Enterprise Risk Management Framework and with the guidance from the Board, the Risk Management and Asset Management Policies to be approved in 2018. The ERM and Asset management will improve the governance of the company.

We take pride in our assets and human capital as they are key to the generation of the revenues and it is within that appreciation for the Board's emphasis on having the said policies.

# Our Strategic Approach

To deliver the strategy formulated in 2017, we set ourselves a number of medium to long-term objectives to 2025. The focus of our strategy is to create value to our customers and shareholders by ensuring that the objectives set out below are executed within the timeframe and in line with our vision.

## Our strategic objectives:

- Improve Financial Performance
- Increase Customer Satisfaction
- Increase Value Added Services
- Improve Security of Supply
- Improve Supply of Electricity
- Improve Staff Knowledge & Skills
- Improve Use of Technology

### Financial Perspective

#### Strategic Objectives

Improve Financial Performance



#### Performance Results

Our revenues are more than costs of operations

#### KPI's

Operating Profit Margin

Liquidity Ratio

Debt/Equity Ratio

### Customer Perspective

#### Strategic Objectives

Increase Customer Satisfaction



#### Performance Results

More customers have the electricity they need

#### KPI's

Overall Customer Satisfaction



## Internal Business Process Perspective

### Strategic Objectives

#### Increase Value Added Services



#### Improve Security of Supply



#### Improve Supply of Electricity



### Performance Results

Customers easily have information on our services

We are fast in responding to Customers

Power supply is uninterrupted

More energy sold

Our operations are safe

Plant and equipment is in working condition

### KPI's

Information Access

Customer Connections Age Rate (CCAR)  
CRR

Customer Average Interruption Duration Index (CAIDI)  
System Average Interruption Duration Index (SAIDI)

Energy sold

Non-compliance Cases

Number of Incidents

Average Equipment Availability Index (AEAI) Power Stations

AEAI Transformers and Transmission Lines

## Organizational Capacity

### Strategic Objectives

#### Improve Staff Knowledge & Skills



#### Improve Use of Technology



### Performance Results

Staff are happy working with ZESCO on agreed activities

Business process performed with minimum human intervention

Staff are happy working with ZESCO on agreed activities

Business process performed with minimum human intervention

### KPI's

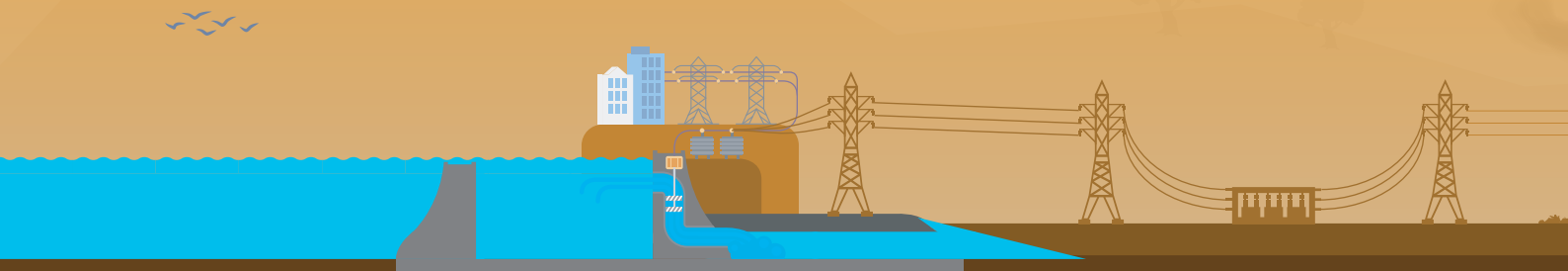
Staff satisfaction rating

Number of Integrated Systems

Staff satisfaction rating

Number of Integrated systems

# Value creation through an Integrated structure



## GENERATION

### Own Generation

- Kafue Gorge Hydro Powerstation
- Kariba North Bank Hydro Power Station
- Victoria Falls Hydro Power Station
- Small Hydros

### Independent Power Producers (IPP)

- Maamba Coaleries Ltd
- Ndola Energy Corporation
- Lusenfwa Power corporation

### Subsidiaries & Joint Ventures

- Kariba North Bank Extension Power Station
- Itezhi tezhi Power Corporation

### Imports

- Eskom
- Southern Africa Power Pool (SAPP)

## PRODUCTION

### INPUTS

- Equity Funding
- Debt Funding
- Grants
- Cash funding from operations

- Water
- Diesel
- Land
- Air
- Biodiversity

- Infrastructure in:
- Generation
- Transmission
- Distribution
- Others

- Organisational structure
- Requisite skills
- Workforce
- Integrity & diversity

- Trade unions
- Employee & community relations
- Lenders
- Customers

- Employee knowledge
- skills
- Business processes & procedures



FINANCIAL CAPITAL



NATURAL CAPITAL



MANUFACTURED CAPITAL



HUMAN CAPITAL



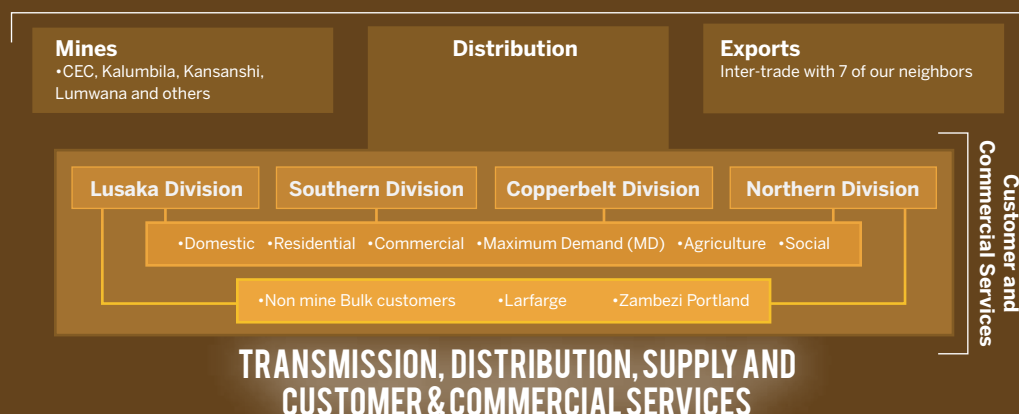
SOCIAL AND RELATIONSHIP CAPITAL



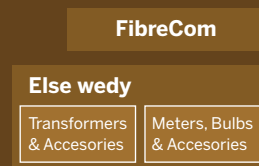
INTELLECTUAL CAPITAL



## TRANSMISSION



## STRATEGIC PARTNERSHIPS



## CORPORATE STRATEGIC INVESTMENTS

ACTIVITIES	OUTPUTS	OUTCOMES
<ul style="list-style-type: none"> <li>•Optimal capital distribution to SBUs</li> <li>•Electricity &amp; Fibrecom sales</li> <li>•Financial &amp; Management accounting</li> <li>•Integrated reporting</li> </ul>	<ul style="list-style-type: none"> <li>•Cashflow from operating activities</li> </ul>	<ul style="list-style-type: none"> <li>•Maximised shareholder's value</li> <li>•Customer expectations ūattractive balance sheet</li> </ul>
<ul style="list-style-type: none"> <li>•Securing water rights</li> <li>•Environmental impact assessment</li> <li>•Rights to use diesel for power generation</li> </ul>	<ul style="list-style-type: none"> <li>•Compliant to ZEMA disposal methods of effluent and waste</li> </ul>	<ul style="list-style-type: none"> <li>•Mitigation of enviroment harm</li> <li>•Increased sustainability through careful use of water resources</li> </ul>
<ul style="list-style-type: none"> <li>•Safety, health, environmental and quality (SHEQ) management</li> <li>•Power engineering</li> <li>•water resource management</li> </ul>	<ul style="list-style-type: none"> <li>•Greenhouse gas emissions from diesel stations</li> <li>•Electricity</li> </ul>	<ul style="list-style-type: none"> <li>•Electricity sales</li> <li>•Fully operational power infrastructure rehabilitation and uprating</li> </ul>
<ul style="list-style-type: none"> <li>•Talent identification</li> <li>•Talent Management</li> <li>•Performance Management</li> <li>•Training</li> </ul>	<ul style="list-style-type: none"> <li>•Productivity</li> <li>•Skilled manpower</li> <li>•Motivated workforce</li> </ul>	<ul style="list-style-type: none"> <li>•Committed workforce</li> <li>•Safe working place</li> <li>•Decreased levels of industrial unrest</li> </ul>
<ul style="list-style-type: none"> <li>•Industrial joint council meetings</li> <li>•Green circle meetings</li> <li>•Investing in communities</li> <li>•Public hearings</li> </ul>	<ul style="list-style-type: none"> <li>•Community upskilling</li> <li>•Brand visibility</li> <li>•Enterprenuer development</li> <li>•Social-economic development</li> </ul>	<ul style="list-style-type: none"> <li>•Sustainable community centred businesses</li> <li>•Economically independent communities</li> <li>•Ethical business</li> </ul>
<ul style="list-style-type: none"> <li>•Office based mentoring</li> <li>•Master classes</li> <li>•SHEQ trainings</li> <li>•In-house trainings</li> </ul>	<ul style="list-style-type: none"> <li>•A workforce with the skills to maintain complex power infrastructure</li> <li>•Enhanced institutional memory</li> <li>•Conserving organisational culture</li> </ul>	<ul style="list-style-type: none"> <li>•Alert response to changing environment</li> <li>•Robust business processes and management systems</li> </ul>

# Our Geographical Location

**7.42 bn** Total Sales (ZMW)

**13 040** Total GWh Consumed



**4.17 bn** (ZMW) Mine Sales

**6.24** GWh Consumed



**2.53 bn** Domestic Sales

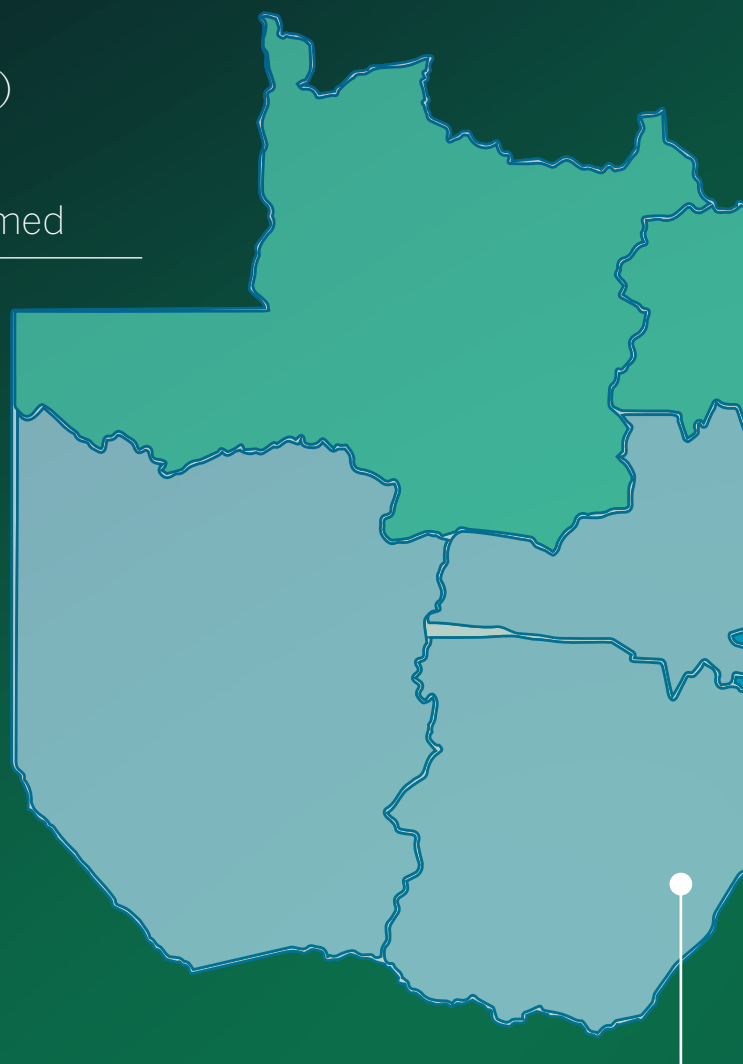
**6.8** GWh Consumed



**729 m** (ZMW) Export Sales



Read more about Mine and Domestic sales on Page 23



## Southern Division

Includes Eastern, Southern, Western and most of Central Province,

Domestic Sales and Consumed KWH

**ZMW 480, 441, 765**

**kWh 1, 243, 916, 749**

Average annual consumption per household

**6,495 kWh**



## Lusaka Division

All of Lusaka, Kafue, Chongwe, Siavonga, Mumbwa and Chirundu.

Domestic Sales and Consumed KWH

**ZMW 1, 251, 025, 559**

**kWh 3, 404, 000, 218**

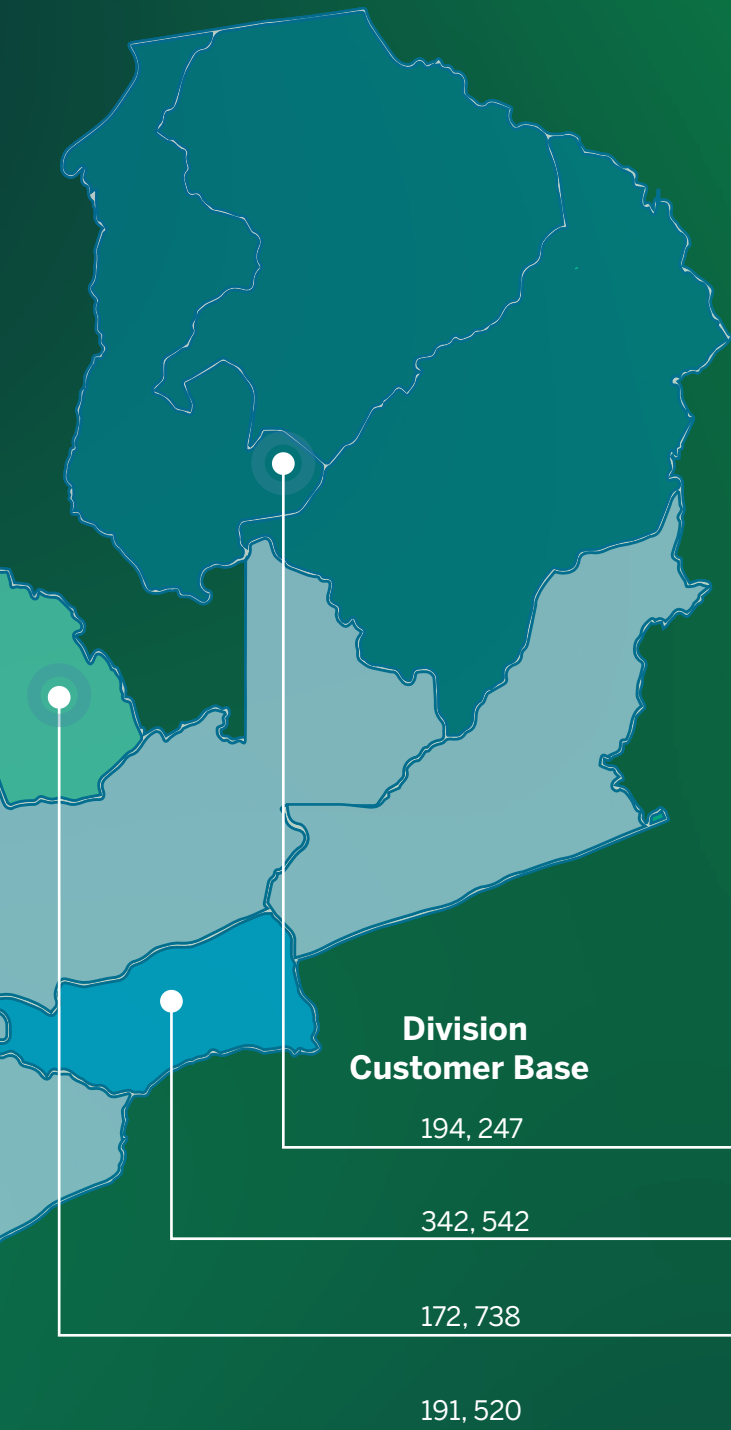
Mine Sales

**ZMW 56, 407, 732**

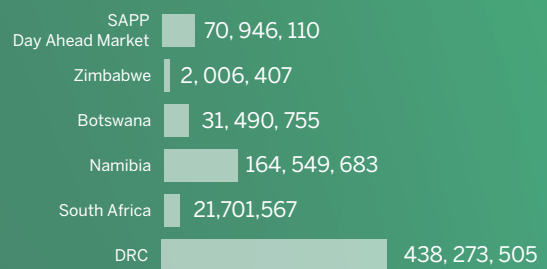
Average annual consumption per household

**9,937 kWh**





**729,000,000**  
Total Export Sales (ZMW)



**901,047**  
**Customers**



### Northern Division

Includes Northern, Muchinga, Luapula provinces, and Ndola and Luanshya towns,

Domestic Sales and Consumed KWH

ZMW 377,545,887  
kWh 997,053,241

Mine Sales and Consumed KWH

ZMW 1,942,706,382  
kWh 2,673,316,690

Average annual consumption  
per household

5,133 kWh



### Copperbelt Division

Includes North Western and Copperbelt Provinces excluding Ndola and Luanshya towns

Domestic Sales and Consumed KWH

ZMW 418,798,636  
kWh 1,157,629,048

Mine Sales and Consumed KWH

ZMW 2,168,956,374  
kWh 3,571,260,182

Average annual consumption  
per household

6,702 kWh

# Dedicated to efficient energy use

The Demand Side Management (DSM) in 2017 continued to reinforce its strategies to efficient power usage so as to protect our customers from huge electricity bills and also reduce the demand on our system.

During this Period, the Automated Meter Management (AMM) project continued to monitor the 5 smart G meters that were installed in Ndola region, Northern Division. These meters were installed on 2 MD accounts and 3 Commercial postpaid accounts (cell sites). Remote meter readings were performed on the 5 meters every day from the date of installation. All 5 meters had been able to read on remote with response time for all 5 meters being within 30 seconds. The next step will be to configure the Smart G system on the ZESCO servers, configure the CMS/Smart G system interface and install the remaining 495 meters countrywide on pilot project basis.

On Power Quality (PQ), 4 PQ recorders were

## Automated Meter Management Project

It will enable us have real time communication with our customers through their meters. Basic functions will include reading, controlling, monitoring and even resolving faults on the meter or account remotely. Any unauthorized tempering of the meter will be detected in real time.

installed and are being monitored remotely.

System trials of the new ZEM smart meters continued through the year. There were also LED installations/retrofits in ZESCO offices and substations. Energy efficiency/low power factor sensitizations were conducted with Power Quality (PQ) recorders installed and assessed. Lighting energy efficiency activities through LED retrofits were done

at two major hydro power stations, these being Kafue Gorge and Kariba North Bank Power Stations respectively. Lusaka, Ndola, Northwestern, Southern and Kitwe regions under Distribution had the LED retrofits done as well.

CFLs installed since Phase 3 of the project commenced were 907,040 by the end of 2017 translating into power savings of about 50 MW.

DSM also concentrated on cleaning up the billing system data in Customer Management System (CMS) for all Maximum (MD) Demand customers with consumption of 100kVA and above. 93 MD accounts audit for various customers deemed with errors on power factor computation was done with a consolidated report compiled. This was in preparation for low power factor surcharge implementation in first quarter of 2018.

# Focused on Innovation to satisfy the ever changing needs of our Customers

## Technological Innovation - Our Digital Strategy

At ZESCO, we continue to pursue our digital strategy which leverage on technological innovation to meet the ever changing needs of our customers. Through our interaction with our customers, we have come to know their ever changing social needs. Our strategy is focused in understanding the impact our services plays in meeting the social needs of our customers. ZESCO's digital strategy is evolved on innovative technology to give our customers the choice and convenience of accessing our services 24/7 anywhere anytime. We are resolute not to lack behind in technology and our technological solutions will continue to be upgraded to meet the rapid changing needs of our customers. Our digital solution aims at bringing efficiency and effectiveness in all the value chain and transforming the way we do business with our customers. Our mission is to make it easy for people to live a better life, to this effect we are committed to use technological advancements to make it easy for our customers to live a better life. The following are some the strategies we have employed:

- Partnership with third party Vendors
- SMS platform (ZESCO24)
- Call Centre
- E-billing

### Partnership with third party Vendors

Our strategy is to take the prepaid services closer to the customers, through technological innovation, we have partnered with Third Party Vendors, Super Vendors and Aggregators to sell prepaid electricity to our customers at their do steps. We have engaged three (3) Super Vendors with a large foot print of vending points. Super Vendors have further engaged several downstream vendors such as Supper Markets. We have also partnered with all mobile companies and subscribers are able to purchase prepaid units using Airtel Money, MTN Money and Zamtel Kwacha at their convenient time and place. We also have 231 Third Party Vendors (TPVs) directly interacting with our system and actively vending on behalf of ZESCO.

Our vendors account for 70% of the total monthly sales while ZESCO collects about 30%. Our strategy is to allow our vendors sale over 90% of the prepaid units by 2019 as we get closer to our customer's door steps.

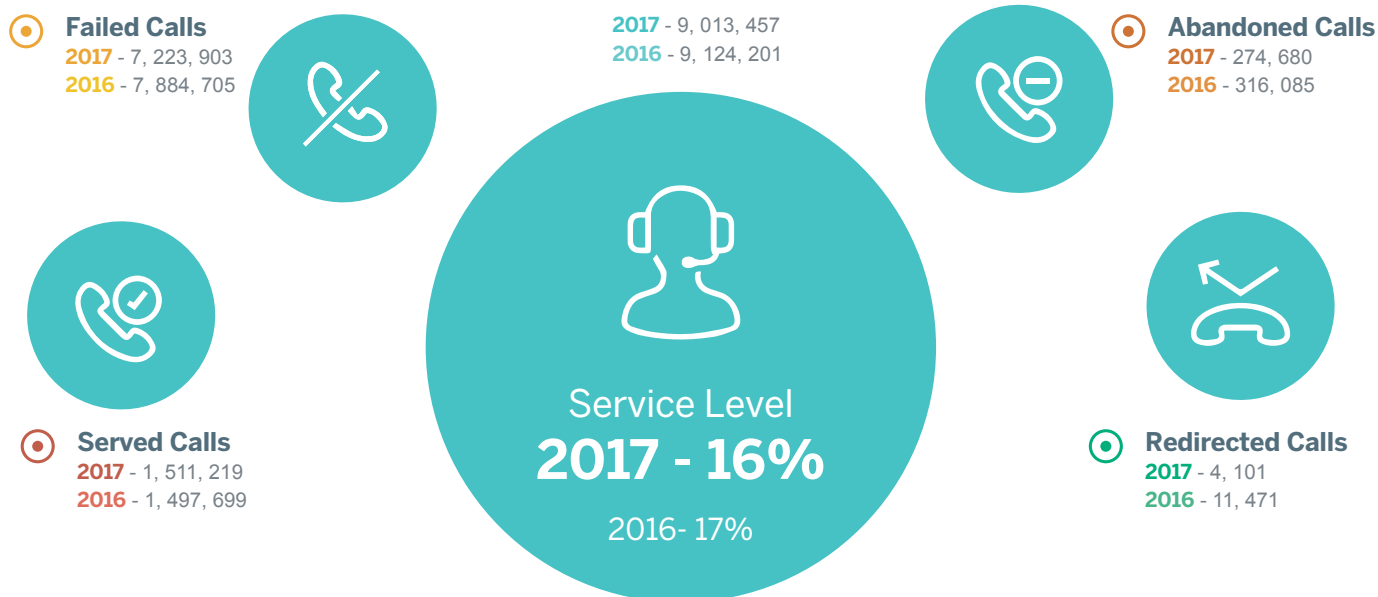
## ZESCO24

ZESCO24 is a one-way communication platform used to enhance communication with our customers using SMS media in addition to the traditional phone system. This communication platform is used to broadcast general notifications, power outages and power restoration notifications. 96 % (852,847) of our customers are registered on this platform.

We continue to operate a 24/7 call centre where our trained staff respectively receive phone calls from our customers across the country. Our staff are always ready to serve and talk to our customers whenever they experience power outages, faults or queries. In the year 2017, 9,013,457 (2016: 9,124,201) calls were received through the National Call center PABX system, however only 17% of the total calls were served. Many of our customers attempted to reach us but only a few were served. However, we are committed to serve our customers better thus a robust strategy to expand our call center is under way, we have secured a rented building with advanced technological equipment to house our National call Centre, this is expected to improve the served phone call rate. Through Incidence Management system, 502,268 (2016: 480,503) faults were reported with 97% resolution rate.

# 9, 013, 457

## Recieved Calls



## E-billing Service

Prepaid billing is at the center of our technological advancements in our retail business model, however, with some industrial customers still on postpaid billing system, plans are underway to efficiently improve our billing management. The 2018 e-billing strategy is evolved on a system where Invoices or bills are electronically delivered to our customers rather than being sent physically. E-bills are electronic version of the paper bills which our customers shall be able to view and print online. This service brings peace of mind to our postpaid customers in that their bills shall be accessed on time hence allowing them to plan for the payment. We have embraced the use of technology to improve our service delivery in line with the global trend of paperless business environment. This innovation brings effectiveness, efficiency and huge savings in billing costs. A total of 11,000 customers are still on postpaid billing system and they shall be served on this billing platform.





## Transformation and Social Sustainability

At ZESCO, we recognize the need to create employment and invest in the social communities we operate. As we create value through our business operations, we also continue to bring our corporate citizenship closer to the society through our social investment, our social strategy is focused on the following:

- Football Club and other sports
- Local community participation in contracts.
- Health Medical Services
- Education

### Football Development

We at ZESCO successfully run a football club namely ZESCO United as we give back emotional joy to the local community. In order to stay on top of the game,

Our Football club were crowned Champions of the 2017 MTN-FAZ premier league, this is our attested commitment and support to the club and the social community.



Zesco United players celebrating after being crowned 2017 MTNFAZ Super League Champions

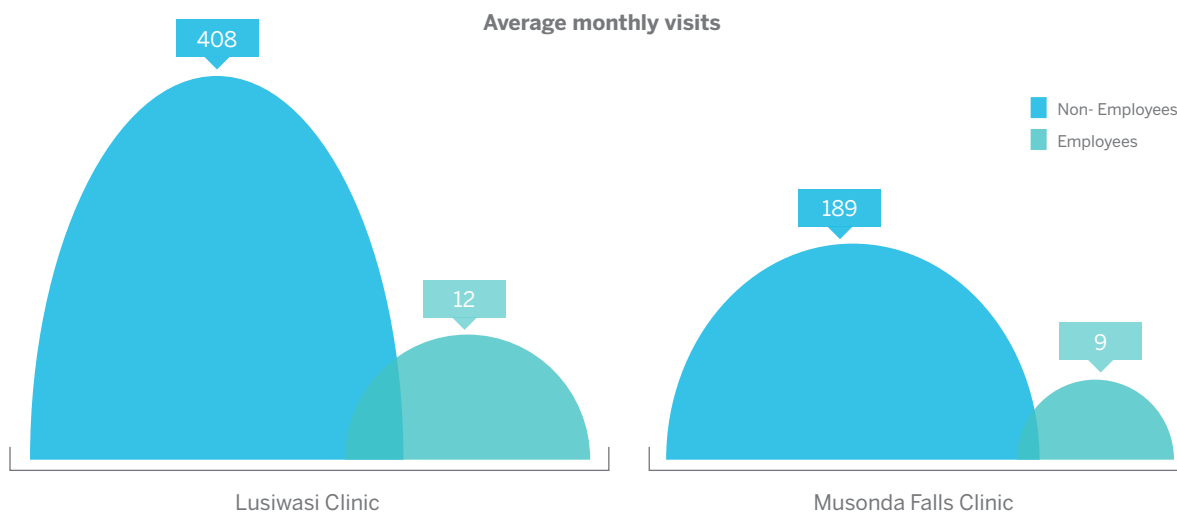
### Awarding Way leave contracts to the Local Community

A total of 34,830 hectares under medium voltage lines was awarded to the local communities under various chiefdoms at a total of K12.1 million. This strengthens the social relationship and also brings economic benefits to the communities.



## Health Medical Services

At ZESCO, we operate six (6) clinics located in urban and rural regions where we provide medical services to our staff. We operate two (2) clinics in rural areas namely Lusiwasi and Musonda Falls where some of our mini hydropower stations are located. Due to lack of public health posts in Lusiwasi and Musonda falls rural areas, our health services provided by our clinics are open to the local communities through our corporate social responsibility. The two clinics collaborates and consults with government health officers in Serenje and Mwense districts on various health programs. Through this partnership with the local health authorities, we have been able to deliver health services to the community. The clinics attendance in the year 2017 is tabulated below:



## Education

At ZESCO, we create an environment that is conducive to the growth and development of the community. We support the community through social uplifting initiatives for the children and youths. As a responsible corporate citizen, we constructed a Primary school in an area called Kabwela in Northern Province. We further constructed two teachers' houses, toilets and two bore holes for the school through our Corporate Social Investment (CSI). Through our social policy, we shall do what we can to give back to the community.



The 1 x 3 classroom block



# Our Business

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# Managing Director's Report



“We have grown the company’s manufactured capital to K60 billion by leveraging on our social and relationship capital...”

**Mr Victor M Mundende**  
Managing Director

## Key highlights

- We have endured to grow our human capital and customer base to 6,772 and 901,047 respectively.
- We are implementing cost control measures to manage our working capital, operating expenses and capital investment without disturbing the vision.
- We are determined to be the hub for electricity trading in the region by 2025.
- Further we have concluded procurement processes for the Contractor to commence the construction of Kasama – Nakonde transmission line which will open up Zambia - Tanzania - Kenya Corridor to access the Eastern Africa market.

# Managing Director's Report

## Dear Stakeholders,

On behalf of Corporate Management and the employees, it is my honor to present the 2017 Integrated Report. I am filled with joy to look back into the past 10 years the efforts, sacrifices and setbacks we have endured to grow our human capital and customer base to 6,772 and 901,047 respectively. We have grown the company's manufactured capital to K60 billion by leveraging on our social and relationship capital, which I strongly believe among our six capitals is the most important; we started as workmates and grew our relationships to friends resulting in asset creation and delivering value to our customers.

We are a company that was born in 1969, formed with a view to manage power infrastructure in exception for mine supplies. The Victoria Falls Power Board in 1937 commissioned their first power station, so effectively, we have the pass on experience and knowledge of managing assets for 80 years yet born only 48 years ago. We cannot ignore the past as we discuss the present and the future, we are an ambitious company unafraid to embrace a brave vision. Our new mission is making it easy for people to live a better life, through this purposeful mission we will deliver value and be the answer to the successful accomplishments of the agenda of the Seventh National Development Plan (SNDP). We are determined to be the hub for electricity trading in the region by 2025 and my management team has started active discussions with RNT, the transmission company based in Luanda to connect the Eastern part of Angola. Further we have concluded procurement processes for the Contractor to commence the construction of Kasama – Nakonde transmission line which will open up Zambia - Tanzania - Kenya Corridor to access the Eastern Africa market.

The optimum interactions of the Six Capitals play a major role in value extraction:



### 1. Financial

In 2015 the country was hit with a severe drought that left us with low water levels and being in the business of generating electricity using water, we were left with no option but devise short term measures to mitigate the economic effects. These options were necessary then to the economy but hurtful to our balance sheet. We had to import power at high costs and in some cases the tariffs were as high as 18 cents per kWh. 70% of our trade payables is attributable to the suppliers of power, the trade payables have moved from K4 billion in 2016 to K7 billion which is 99% of the revenues. These levels of trade payables clearly threaten both our revenue and solid brand sustainability.

We are implementing cost control measures to manage our working capital, operating

expenses and capital investment without disturbing the vision. The management team with the full support our Board and shareholder are in the process of procuring a loan which will ease working capital challenges and pay the suppliers of electricity. We are pleased to mention that we are phasing out all the suppliers of the emergency power by the end of the first quarter in 2018, our worry remains with the local independent Power Producers whose expensive power is needed looking at the power demands and the contract tenures. Management is looking forward to the successful completion of the Cost of Service study being undertaken by the Regulator (ERB) which is most likely going to trigger the upward revision of the tariffs to cost reflectivity.

It is pleasing to share with you that there has been a debt swap with the Government against the taxes and discussions with the Government on conversion of the GRZ on-lent loans to equity are currently underway. This will reduce the gearing levels and make the balance sheet more attractive.

With all the challenges that have been experienced, my team and I have carried out certain measures to ensure that the company remains financially sustainable. Amongst the many measures carried out, the notable ones are as below:

- A financing facility of US\$500 million was approved with Standard Chartered bank being appointed as the global coordinator of the transaction. This is to help clear some of the long outstanding payables and also supplement our daily working capital needs.
- Debt restructuring will involve negotiating some loan tenures and interests
- Cost reflective tariff upon completion Cost of Service Study being carried out Energy Regulation Board.
- Engaging Independent power producers to renegotiate the tariffs
- We have engaged Zambia Revenue Authority (ZRA) regarding the debt write off as a way to deal with the huge figures on VAT and Excise duty. Part of the Taxes arise from the reversal of the mining tariff and also the importation of emergency power in 2015.
- We have implemented the online banking payment facility to ease the operational challenges and also reduce the costs of transactions. This has also created a solid trail of transactions and approvals are done in real time.
- Value to our shareholders remained key and therefore transparency could not be over emphasized. In this vain, Deloitte & Touche were reappointed as external auditors for 2017.
- Partial funding towards the Lusaka South MFEZ Transmission project was approved. This was to enable the connection and supply of power to

Mpande Limestone Limited which in turn will boost our revenues.

- able the connection and supply of power to **Mpande Limestone Limited** which in turn will boost our revenues.
- On the transmission system, we engaged the Industrial Credit and commercial Bank of China (ICBC) to finance 85% of the **Kasama – Nakonde, Kasama – Mporokoso and Kasama Kayambi Power Transmission and substation project**. The funding involved amounts to US\$288 million.
- There has been some challenges with the bulk non mining customers. My team and I arrived at a tariff for this customer group and has since been submitted to the regulator (ERB) for approval.



### 2. Manufactured

We continued to embark on growth projects as an organization and business. As the list of such is long,

notable activities are:

- Implementation of Enterprise Risk Management framework (ERP).
- Financing of additional equipment and implementation of additional works related to the integration of the two MCL 330kv line bays at Muzuma substation to the Zesco digital control system under the upgrading of Kafue town – Muzuma – Livingstone- Victoria falls 220kv Transmission line.
- Changing the Customer Services Directorate to “Customer & Commercial Services Directorate”. This was to include the commercial nature of the directorate and give it a wider scope so to improve the customer experience.
- Two distribution regions were realigned to be in line with their geographical locations. These were Northwestern region which was moved to Copperbelt division from Northern division whilst Luanshya was moved to Northern division from Copperbelt Division. This improved efficiency as supervision was closer and inline geographically hence eliminating inter division bureaucracies and limitations.
- With the changing technology, all qualified technical staff were trained in energy management and those that qualified for certification were given the opportunity to attempt certification tests. This entails that we maintain highly skilled technical employees that are upto date with technological changes.
- Connection of Northwestern to national grid, Lot 1 Lines and Lot 2 substations: there was an extension on the completion time of this contract that was earlier awarded to ELTEL Networks TE AB of Sweden for the North western grid extension project from July 2017 to December 2017. This will have no financial implications whatsoever on Zesco.



- Approved change proposal No. 165 submitted by Alstom Hydro France (AHF) for the rehabilitation of unit 1 turbine shaft at a preliminary cost of EURO 55,980.00 for trans-shipment and U\$79,432.40 for engineering works.
- Luapula Hydro Power Projects General roadmap and procurement of consultancy services: we passed the request to enter into separate terms of reference for updating the 1977 and 2001 pre-feasibility study from the proposed detailed feasibility as recommended by one of the financiers, KFW.
- Approved change proposal No. 165 submitted by Alstom Hydro France (AHF) for the rehabilitation of unit 1 turbine shaft at a preliminary cost of EURO 55,980.00 for trans-shipment and U\$79,432.40 for engineering works.
- For Fibrecom, we approved that an expert consultant be engaged who will develop a business proposal towards unlocking of the value of Fibrecom and give a report on the sealing of all leakages in the Fibrecom business.



### 3. Natural

Our business is in generating electricity and as we continue to enhance the Generation Mix, water as a primary

energy cannot be completely ignored and this shall remain so in a long time to come. We are working on the restoration of the environment surrounding our water bodies, for example the reforestation of the surroundings of the source of the Zambezi River. My management and fellow employees went to North-Western in Zambezi district to kick off tree planting. With a call to diversify the water catchment areas as our main source of electricity is hydro, the move to tap into the northern part of the water bodies has had its own social responsibilities. For the Musonda Falls Hydro Power Project, fish restocking was done on the dam. This exercise cost ZMW 381,290.



### 4. Social and relationship

My management team believes in building sustainable bonds amongst the employees and this helps

in the integration of stakeholders' needs. The effective relationships with customers is based on delivering above their expectations. The Board gave an outright approval of the decommissioned diesel generators from North Western province to be donated to the needy areas such as hospitals and schools, however, management redeployed them to other districts as a short term measure to provide reliable supply to our customer in areas such as Shango'mbo, Luangwa, Lundazi and Chama districts. It is still within management's plan to donate them to the needy areas as guided by the Board once a lasting solution of connecting the said districts to the national grid is found.



### 5. Human

Our human capital is at the core of delivering value and my management finds pride

in having a well-motivated workforce, and am pleased to announce to the stakeholders that the Board approved an upward salary adjustment to all employees. To grow and steer our business and competently operate our complex infrastructure safely and efficiently, we require high achievers and out of the box thinkers.

We heavily rely on our 6,772 employees to create and deliver value for not only the shareholders but also all the stakeholders. One life lost is one too many for the corporation, we have had a reduction of deaths from 33 in 2016 to 24, this is not a success and I would personally wish no deaths recorded in 2017.



### 6. Intellectual

Through SHEQ we have developed our own processes and management systems which are flexible to the ever

changing environment. Management has committed itself towards building intellectual platforms such as the approval of the K3,200,000 for the purchase of land for the purposes of expanding the ZESCO Training Centre.

Training on the implementation of enterprise risk management framework within the corporation is ongoing and we are confident that this training shall expand the intellectual understanding of our risks and how to effectively manage them.

### Future Outlook

Looking forward, we are confident to close the financing deal of our working capital and continue with the recovery plan of our company. The future is bright with the massive investment in Kafue Gorge Lower Hydro Power Station progressing well. The creation of Fibrecom Limited as Subsidiary company will diversify our revenues and also create platform for growth.

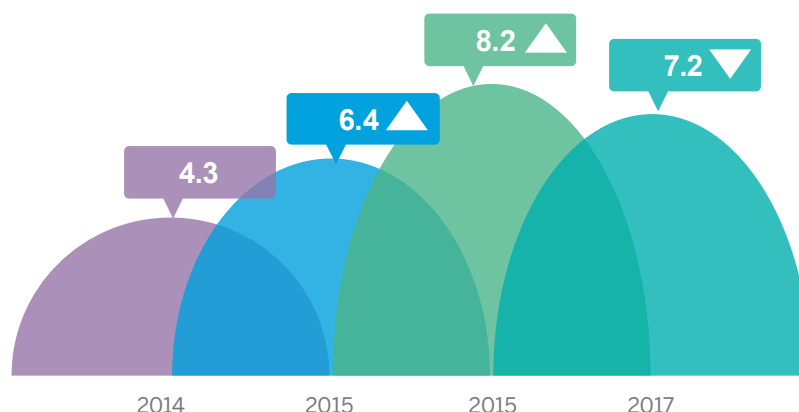
### Conclusion

I wish to acknowledge my executive team for its commitment and execution of our new strategy. Many thanks to the board for providing the right level of counsel given the complexity and size of our business.



# Revenue and Business Sustainability

Our revenues remain the major foundation upon which our operations are sustained. Any change, whether adverse or favourable impacts our business operations either directly or indirectly.

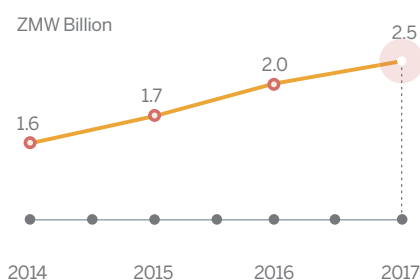


During the period under review, overall revenues reduced by ZMW 813 million, a 10% reduction from the previous period's ZMW 8.2 million.

Overall sales volume increased by 12% from the previous periods 12,436 GWh. 69,571 new customers were connected in the period under review increasing our base to 901,047 customers.

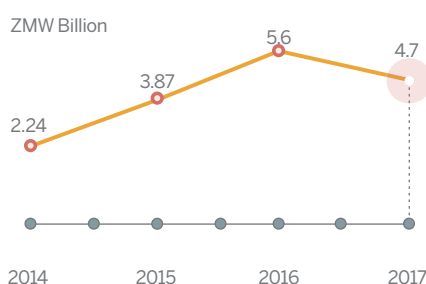
## Domestic sales

Despite the overall reduction in revenues, our Domestic customer category recorded a favorable change from 2016, this was mainly due to the tariff increment of 75% awarded by the regulator in 2017. The tariff was awarded in two phases with Phase one being in the first quarter and phase two in the third respectively.



## Mine sales

The largest contributor to the overall reduction in revenues was the Mining customer category. With the reversal of the earlier tariff of US cents 10.35/kWh implemented in 2016 for mining customers to a lower interim tariff, it was inevitable that our revenues would reduce as this category still remains the largest revenue contributor on our portfolio. Engagements however continued even after this period with our customers for a more cost reflective tariff.



## Exchange rate

The exchange rate i.e. US Dollar remained fairly constant opening at ZMW 9.853/US\$ and closing at ZMW 9.953/US\$. Budget exchange rate for the period under review was ZMW 10/US\$. Our Mine and Export customers are billed in US\$.

# Transformation of Energy Sector

ZESCO Limited was formed in 1970 after the Zambia Electricity Supply Act was passed in Parliament. This Act brought together the electricity undertakings that were previously managed by the local authorities. The Corporation traces its origins to 1906 when a small thermal station was established in Livingstone to serve a small section of the town.

In 1994, the name of Zambia Electricity Supply Corporation Limited was changed to ZESCO Limited. This was to reflect the recommitment to providing a high quality of customer service.

## 1937

First station at Victoria Falls commissioned by Victoria Falls Power Board to supply southern areas of Zambia

1921 - 22MW Mulungushi Power Station established to supply copper mines  
1910 - Rhodesia Broken Hill Dev. Co formed - Kabwe

## 1978

Commissioning of final phase of Kafue Gorge PS-900MW

1976 - Completion of Kariba North Bank PS-600MW  
1971 - Distribution functions of municipalities brought under ZESCO  
1968 - 1972 - VFPS uprated to 108MW

## 1970

ZESCO formed to manage all power infrastructure except for mine supplies

1959 - Kariba-Lusaka-Kitwe 330kV line energized  
1956 - 220KV Congo-Kitwe line completed  
1955 - Hydro Power Board commences work on Kariba dam with completion in 1959  
1945 - Lunsemfwa Power station in Kabwe-18MW

## 2014

360MW KNBE peaking station is commissioned  
Construction of Kanyama 33/11kV Substation on Mumbwa Rd 31st Oct  
Construction of Lusaka Rd 66/11kV Substation (in Livingstone) 31st Dec

· 360MW KNBE peaking station is commissioned  
· Construction of Kanyama 33/11kV Substation on Mumbwa Rd 31st Oct  
· Construction of Lusaka Rd 66/11kV Substation (in Livingstone) 31st Dec

2013 - 50MW Ndola Energy Company Ltd HFO plant commissioned  
2005 - 2010 - Uprating of KGPS & KNBPS (990MW & 720MW respectively)  
2000 - Lunsemfwa Hydro Power Company started operating as an Independent Power Producer (IPP)  
1997 - ZCCM Power Div. privatized and incorporated as Copper belt Energy Corporation Plc (CEC).  
1995 - South African grid connected to Zimbabwe leading to formation of SAPP under SADC Energy Ministries.  
1987 - Kariba North Bank lease transferred to ZESCO

## 2017

North-Western Province gets connected to the National Grid

2016 - 300MW Maamba Collieries Limited is commissioned operating as IPP  
2016 - ITT - Mumbwa - Lusaka West  
2016 - Commencement of construction of the 750 megawatts (MW) Kafue Gorge Lower (KGL) hydro power station in Chikankata District.  
2015 - Pensulo - Kasama 330kV Transmission Project Commissioned in September  
2015 - Pensulo - Msoro - Chipata West Transmission project Commissioned in September  
2015 - 120 MW ITPC is commissioned





# Understanding Our Business

ZESCO is a vertically integrated company, involved in Generation, Transmission and Distribution and Supply. Through our talented employees, we use technologies to safely generation, transmit and distribute our products and create value for our customers, shareholders and stakeholders.

## What Differentiates

- Our ability to manage complex integrated **VALUE CHAINS**
- Our **TECHNOLOGY**
- Our ability to respond to changing business environment
- Our robust Asset Base cutting across the country

## Our Core Competencies

- Operational Excellence: Expertise in operations and maintenance of generation and transmission.
- Driving Innovation through technology in value addition for our customers.
- Well trained workforce with expertise in core business.
- Strong balance sheet following revaluation of asset.
- Vast and Strong Transmission and Distribution Infrastructure
- How Our Structure Creates Value
- Creating Sustainable Value through the Deliver on our Growth Projects





## Factors affecting our ability to create value

### Macro-Economic Environment

The macro-economic factors such as exchange rate movement, interest rates and inflation rates were relatively stable. Any adverse movement in the economic factors, will affect the profitability and cashflows of the company.

### Uneconomic Tariff and High Cost of IPPs

The uneconomic tariff affects the delivery of value to our customer and stakeholders. This impacts adversely in terms of flow of materials for connection of new customers and also for investment in a robust maintenance system.

Further, the high cost of IPPs implies that there is a deficit since the selling tariff is below the cost of buying power. The differential in tariffs creates a deficit, which builds up as a payable affecting the value creation to our customers and shareholders and stakeholders.

## Factors key to delivering value

### Delivering Value based Growth

Delivering continuous improvement, by diversifying generation sources through generation mix by focusing on renewal energies such as Solar Energy.

### Human Capital Management

Promoting safety, diversity and cultural transformation as well as attracting, developing and retaining, developing people, while engaging all employees and respecting rights.

### Environmental Sustainability

The company phased out the diesel generators in North western region by connecting the region to the National Grid. This makes the company more environmental friendly and in compliant with Zambia Environmental Management Agency.

### Commitment to Our Communities

Consistently delivering on our commitments to community, stakeholders and optimizing the impact on social investment programs by engaging the community in bush clearing, anti-vandalism campaign and traditional ceremonies.

# Our Business

At ZESCO, we provide electricity to the Nation and in the region by connecting people to our network, taking our services closer to them and quickly responding to their needs. We not only take pride in understanding their requirements but also go the extra mile in delivering our service. We recognize the fast changing needs of our customers and continuously adapt our approach to serving them better by constantly looking for new ways of how we can make their lives better.

Our Customer Value Proposition (CVP) has been designed to respond to customer needs through our business model.

There are three value factors that underpin our proposition to our customers. These factors explain how we intend to respond to the needs of our customers and give them an exceptional experience:

**Ease of Access:** We make it easy for our customers to be connected to our electricity network.

**Responsiveness:** We are fast at responding to our customers, take pride in understanding their needs, and go the extra mile in delivering our service.

**Flexibility:** We are constantly looking for new ways to accommodate our customers' in order to better their lives.

This proposition is the essence of ZESCO's existence, its purpose.

## CORE SERVICE ELECTRICITY SUPPLY

### Expected Benefits

- Uninterrupted supply
- Safety
- Speed of service
- Electricity that meets everyone's financial needs

### Augmented Benefits

- Ease of access to services
- Energy consultancy/ Advisory services (responsiveness, advising customers on how best to use their energy)

### Potential Benefits

- Flexible services (Flexi pay and load management)

## STRATEGIC CONTEXT

Our strategic review and new direction was informed by the socio-economic development plans of the country through the Seventh National Development Plan (SNDP). It was also founded on the analysis of the changing landscape in the energy sector, with sector reforms being considered by the shareholder. The sector reforms could lead to open access regime and increase the number of players in the energy sector.

We are the main provider of electricity services in Zambia. Our obligation is to ensure that our customers have electricity that meets their needs. This requires ZESCO to deploy systems and put in place specific measures to ensure that it is reducing the turnaround times. ZESCO also has to improve its technological and human resource capabilities for better service delivery.

Coupled with the strategic location of Zambia within the Southern African region, the untapped generation resource provides ZESCO with a unique opportunity to meet local demand for social and economic development in Zambia in line with the SNDP, and to reposition itself to take advantage of its strategic location for power trading, in line with the growing electricity market in the region. The utility company is therefore aiming to be a sustainable regional electricity trade hub. Further, the digital revolution has come to the electricity industry, and ZESCO will have to be a fully digital utility.

These are key issues that guided the development of ZESCO's strategic focus areas, the areas that guide our strategy formulation and execution in the next seven years.

Strategic Focus Area	Strategic Result
Strengthening Our Core Business	Our operations reliably deliver electricity to local and regional markets
Delivering Value to Our Customers	Customers have electricity that meets their needs
Enhancing Use of Technology	We are using our digital capabilities to improve our operations and benefit the communities in which we operate
Unlocking Value of Non-Core Investments	Our investments add value to our business and offer a good return to the shareholder



# OUR VISION

'TO BE THE HUB OF ELECTRICITY  
TRADING IN THE REGION BY 2025'

# OUR MISSION

MAKING IT EASY FOR PEOPLE TO LIVE  
A BETTER LIFE.

# OUR VALUES

AT ZESCO, OUR ORGANIZATIONAL SOUL  
IS REFLECTED IN OUR SHARED VALUES:

## LOVE

We care and support one another, as well as our customers. We endeavor to understand, respect and support each other.

## COMMITMENT

We are passionate about what we exist to do for one another and for our customers. We are driven by our organization's shared truth – to make it easy for people to live a better life.

## INTEGRITY

We uphold fairness and truthfulness in our actions. We conduct ourselves with honesty, accountability and in an ethical manner in all our dealings. We work and live in a corruption free environment.

## OPENMINDED

With deliberateness and spontaneity, we are open to different ideas that advance our mission. We are receptive to new ways of thinking to improve ZESCO's operations and ourselves. We welcome, recognize and support progressiveness. We foster learning and growth.

## GREEN ENVIRONMENT

We are committed in our operations to pursue sustainable practices that lead to a green environment.



# Operational Sustainability

## Generation Performance

During the year under review a total of 10,854 GWh was generated at our hydro power stations against a planned generation of 10,425 GWh representing above budget generation of 4%.

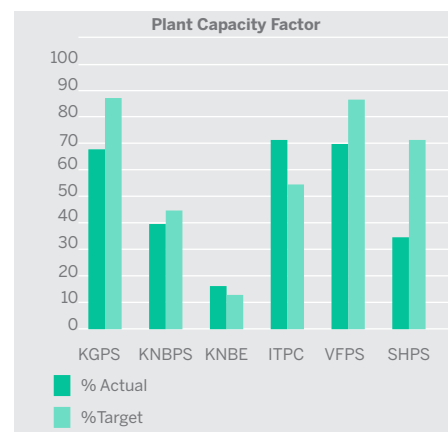
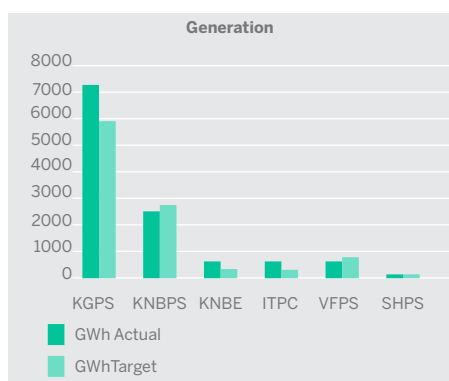
Average Availability of generating plant was at 72% with a Capacity Factor of 42%. This low Capacity Factor is attributed to

low generation levels from Kariba North Extension, Chishimba Falls, Lunzua and Shiwan'gandu powers. The low generating Unit Availability is attributed to the low availability of plant at Lusiwasi and Lunzua power plants.

In general, there was sufficient water to generate both firm and secondary power at

Kafue Gorge Power Station. At the Kariba North Bank power stations, water utilization was within the annual allocation from the Zambezi River Authority closing at 93.1% of the allocation. Normal power generation was conducted at Victoria Falls power station. Adequate water was available for power generation at the Small Hydro power stations during the year.

### Operations and Maintenance

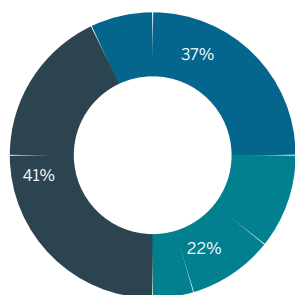


Key		
KGPS	Kafue Gorge Power Station	Small Hydro Power Stations
KNBPS	Kariba North Bank Power Station	Lusiwasi
KNBE	Kariba North Bank Extension	Chishimba
ITPC	Itezhi tezhi Power Corporation	Musonda
VFPS	Victoria Falls Power Station	Lunzua
SHPS	Small Hydro Power Stations	Shiwan'gandu

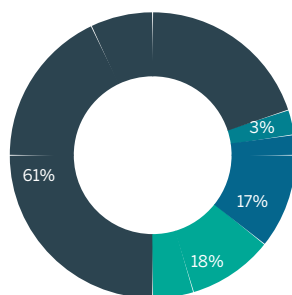
### Major Outages

The following are representations of total outage durations at the various power plants in hours.

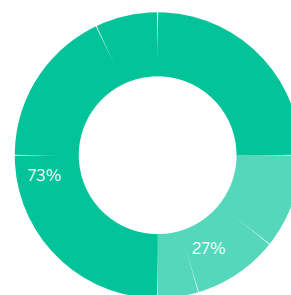
#### Planned Outages



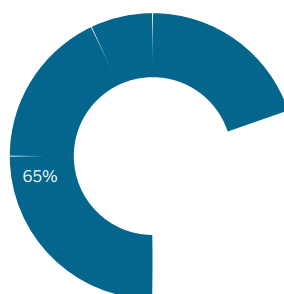
KGPS Planned Outage Hrs



KNBPS Planned Outage Hrs

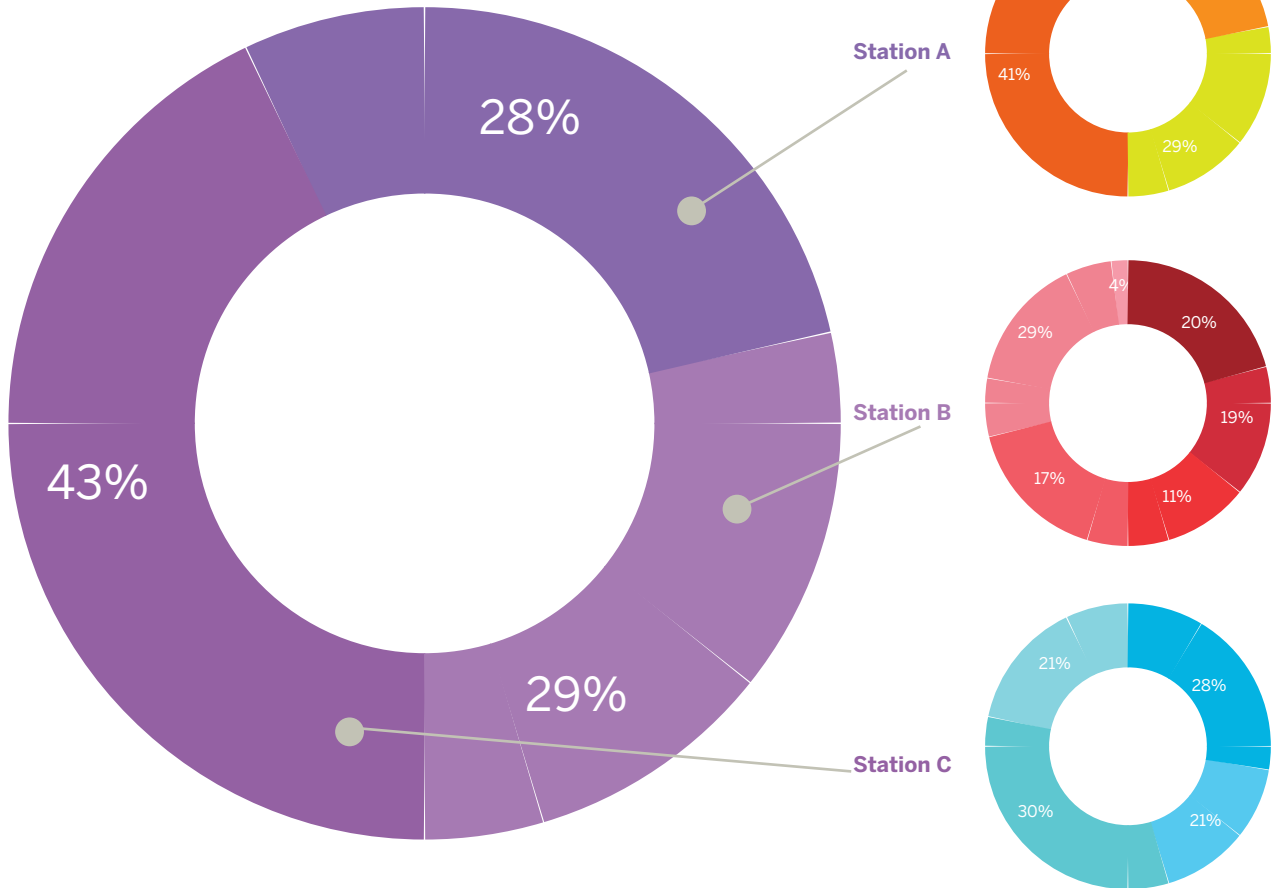


KNBE Planned Outage Hrs

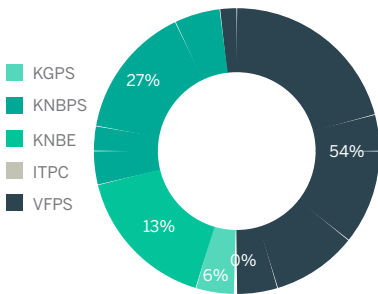


ITPC Planned Outage Hrs

## Planned Outage Hrs by Station (VFPS)



Planned Outage Hrs (By Station)



ITPC recorded the least planned outage hours at 64 hrs (and that was only on one machine (Unit 2). Obviously as a result of having fairly new equipment compared to all the other stations. The stations was officially commissioned in 2016.

VFPS contributed the most outage hours (over 50%) of the total. This mainly because of the aged infrastructure at the station.

KNBPS also contributed over a quarter of the total outage hours mainly due to the downtime on G1 which recorded downtime of 62% of the total plant outage hours.

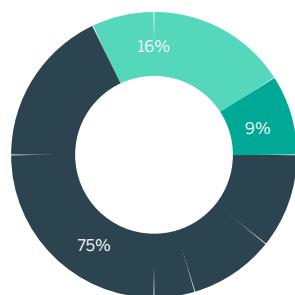
At VFPS, station C was the worst performing contributing over 43% of the total planned outage duration at the station. The remaining 57% was almost equally shared between station A and B.

**Key**

Various Power Plants	G1	G2	G3	G4	G5	G6
Station A	A1	A2	A3	A4		
Station B	B1	B2	B3	B4	B5	B6
Station C	C7	C8	C9	C10		

## Unplanned Outages

Only VFPS and KGPS recorded unplanned outages as detailed below

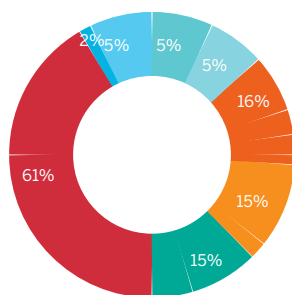


KGPS Unplanned Outage Hrs

75% of the outage hours due to unplanned outages resulted from G6 mainly to allow for the replacement of thrust bearing pads after tripping on thrust bearing temperature.

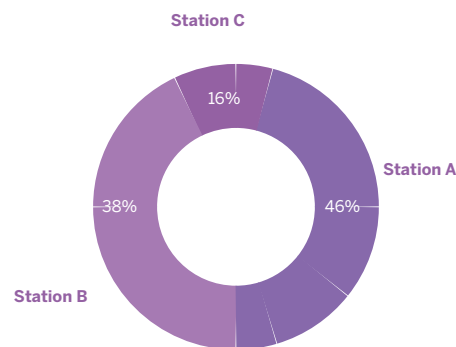
The rest of the outage hours on the other machines was related to generator air cooler maintenance, repairing of spherical valve bypass line on the manual valve and Upper Guide Bearing seal repair works on G4.

The regular six-monthly inspections and maintenance of generator G6 was also conducted during the downtime.

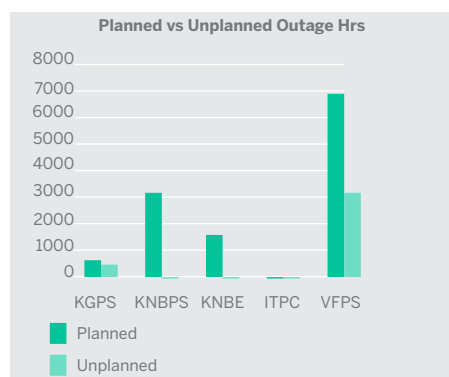


VFPS Unplanned Outage Hrs

At Victoria Falls Power Station the bulk of unplanned outage hours were from Generator B2 which contributed about 1,271 hours in total. This was mainly on account of the set tripping on electrical protection Generator / transformer differential. Other outages on the set were occasioned by the unit tripping on low penstock pressure due to clogging of water intakes by weeds.



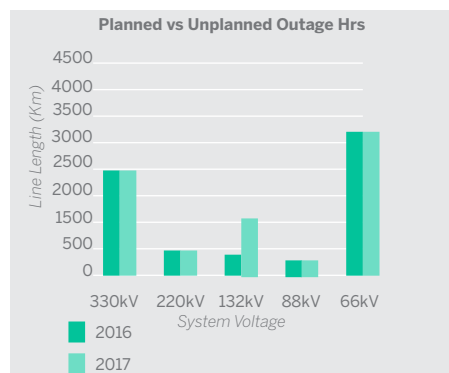
VFPS Outage Hrs (By Station)



## Transmission Performance

The transmission system is the interface between the generating plants and the distribution system. It is responsible for the development, operation and maintenance of the infrastructure used for the efficient and reliable transportation of electricity from the generating stations to bulk supply points and to large industrial and mining customers. It also provides an integrative function for the operation of the interconnected power grid.

During period under review, the asset base in terms of transmission lines and substations was as follows:

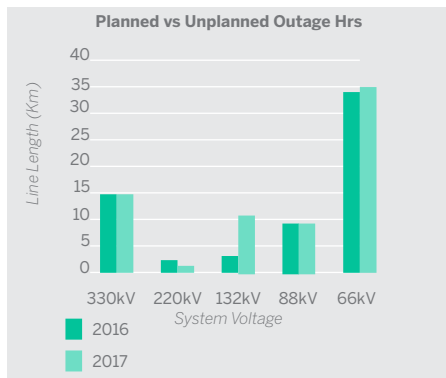


ZESCO's transmission lines are mostly at 66kV system voltage representing 42% of the total transmission network length as at December 2017.

This is then followed by 330kV voltage lines which are were about 31% of the network or 2,486 km.

In terms of expansion of the network, only the 132kV recorded an expansion of over 186% from only 431 km in 2016 to 1,231km in the year. This was mainly due to the connection of North-Western Province to the national grid. All the other voltage systems remained the same as 2016 figures.



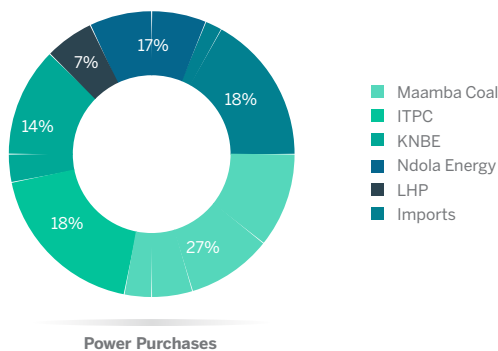


The 132kV substations equally recorded the greatest increase due to the grid extension in North Western Province. From four substations in 2016 the total in 2017 stood at twelve substations.

A new substation was commissioned at the 66kV voltage level while one was decommissioned at 220kV during the year.

All the other voltage levels maintained the same number of substations as the previous year.

## Electricity Purchases and Imports

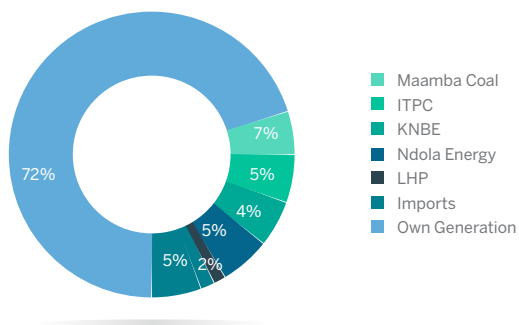


Purchases from Maamba Coal Limited accounted for 27% of the total purchases during the year. ITPC and KNBE accounted for 18% and 15% respectively. The imports were from the SAPP Market Trading Platform (MTP). Lunsemfwa Hydro Power Company purchases stood at 7%.

The total imports and local purchases were 4,180GWh representing 28% of the total power available for sale.

## System Demand

The gross consumption was 13,059.5GWh, and a total of 1,075.9 GWh was exported, both High voltage and low voltage. The losses were 775,417.072MW or on average 5.3% in The year 2017. The Maximum Demand for the Year was 2,195MWh which occurred on the 18<sup>th</sup> July 2017 at 18:58hours. This is the Highest demand ever recorded on the Zambian grid.

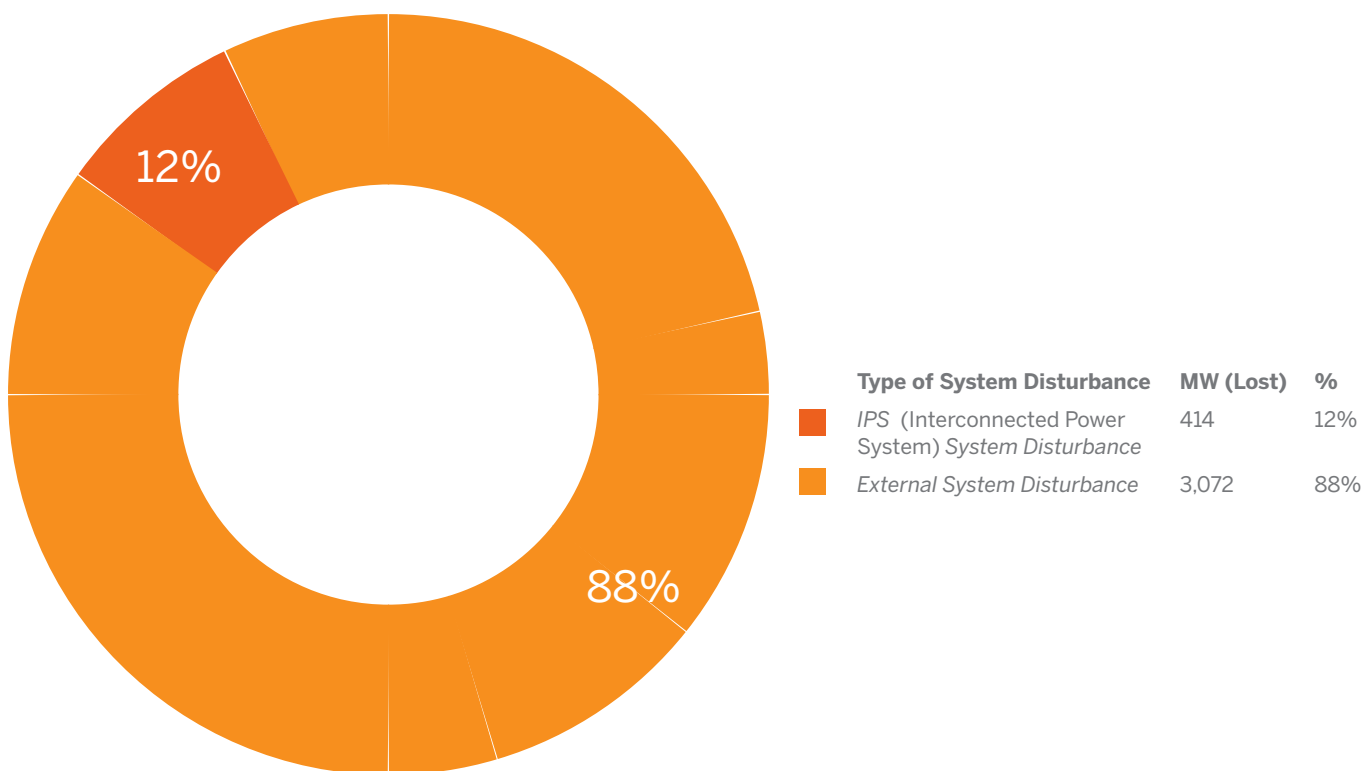


# System Stability and Security

The Zambian grid did not experience any total blackout of the system during the period under review. However, there were some significant disturbances that led to loss 3,486 MW due to disturbances on the transmission network system. This meant that an average of 290 MW were lost on a monthly basis.

System disturbances occur mainly due to either external systems disturbances or interconnected power system (IPS) system disturbances.

## System Disturbances MW (Lost)



## Transmission System Operations and Maintenance

The availability of the Transmission system was satisfactory in the year 2017. The average availability of the Transmission Lines was 98.6% while the average availability of the Power Transformers was 97.4%. The average availability of the Transmission system was 98.0% for the year.

In the year, system maintenance activities were of preventive, corrective and condition based. Scheduled time-based maintenance of plant and equipment was conducted on the power transmission infrastructure with a total compliance of 93.3% of the planned maintenance activities for the year. Corrective maintenance activities were undertaken to ensure restoration of equipment to service.

The performance of the Protection system, SCADA systems and metering infrastructure was also satisfactory and stable.

The way-leave for the transmission system backbone (330kV, 220kV & some 132kV

lines) was also maintained in the year commencing on 1st May 2017 over a period of three months. A total of 29,445 hectares of the transmission lines way-leave was cleared in-house while 11,805 hectares was outsourced. The in-house wayleave maintenance included all 220kV and 330kV transmission lines with other nominated sub-transmission lines while the contracted wayleave maintenance comprised sub-transmission lines. The wayleave was maintained at a cost of K39, 731,980.75 against a budgeted K42, 000,000.00.

Operations and Maintenance activities were hampered by several challenges including lack of adequate and reliable transport for maintenance crews. Furthermore, the existing procurement procedures did not allow for timely purchase of critical spares for the various components of the Transmission system. This increased the down time of some equipment and also affected quality of repairs in other cases.

The system continued to operate with insufficient voltage compensating equipment during the year. Projects to install additional

compensation are expected to progress in 2018 with the expected installation of additional shunt reactors at Kabwe step-down, Msoro and Kalumbila substations. The planned installation of a dynamic device (STATCOM or SVC) at Luano is further expected to improve the dynamic response of the Transmission network on the Copperbelt, which has been affecting the stability of the wider Transmission network.

Some of the major Transmission substations are over 50years old and the equipment is not only aged but underrated for current loading. In this regard, the program to upgrade the equipment has commenced and progressed well in the year. The critical substations include Leopards hill, Kabwe step-down, Kitwe and Luano substations. The upgrade of equipment at Leopards hill is in progress and is expected to be completed in 2019 whereas upgrade of Transformers at Luano and Kitwe is at 50%. The completion of upgrade of Luano and Kitwe will continue when funds are secured for the remaining works.

Vandalism has continued to affect the

availability of transmission infrastructure. The most affected are transmission lines where tower earthing material and steel members continue to be vandalized on a high scale. This has contributed to the poor operational performance of some circuits due to frequent trip outs especially during the rainy season. However, security patrols and inspections were intensified during the period under review. Community sensitization were also conducted during the year and these will continue into 2018.

### Distribution System Performance

During the year under review, the KPIs were generally closer and in some cases, met the targets. However, CAIDI varied at an average of 8.2hours and was very unpredictable. This could be attributed to the following causes: Lack of network visibility to physically locate the affected customer on time, Lack of standards on the duration to resolve faults, Lack of geographical information based tools to easily locate the affected installation, Lack of integrated planning that includes external stakeholders, Lack of critical materials at stores for timely resolution of faults and ensure reduced outages.

During the period under review, electricity supply at the diesel stations (Southern and Northern Divisions) was fairly satisfactory. A total of 8.3643 GWh of energy was generated while 2,389,889 litres of diesel was consumed at a cost of K21.277 million. The total sales for the same period were K2.185 million. Therefore the sales revenue as a ratio of operating costs was 10.27%.

Incidents recorded across the Directorate in the year under review as compared to the previous year, reduced from 175 to 168.

System expansion and reinforcement Projects had progressed well. The Distribution Expansion and reinforcement Project (DERP) Projects were at 100% done. Increased access to electricity services (IAES) had done more than 96% while the Euro Bond financed Projects were at 88%. The Lusaka Transmission and Distribution rehabilitation Project (LTDRP) was finalizing land acquisitions, surveys, initiating procurement and carrying out tender evaluations. Construction of the new Waterworks 132/33/11kV Substation by CEEC-HEPDI was in progress.

### Demand Side Initiatives

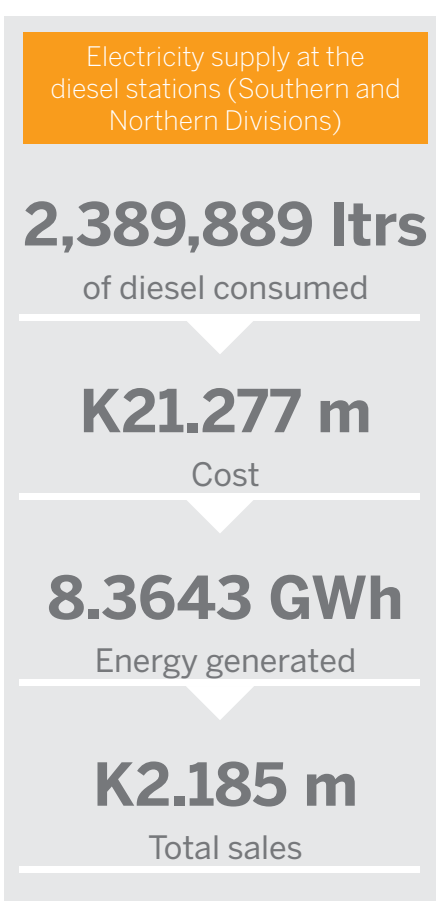
During the period under review, Demand Side Management (DSM) concentrated on billing system data clean-up in CMS for all Maximum Demand customers with consumption above 100kVA, system trials of the new ZEM smart meters, LED installations/retrofits in ZESCO offices and substations, energy efficiency/low power factor sensitizations, power quality recorder installations and assessments. The lighting energy efficiency activities were through LED retrofits at ZESCO offices such as Kafue Gorge power station, Kariba North Bank Power station, Lusaka, Ndola, North Western, Southern and Kitwe Regions.

Furthermore, on billing system data clean-up in CMS, 93 MD accounts audits for various customers deemed with errors on power factor computation was done and consolidated report is being compiled. This is in preparation for low power factor surcharge implementation in first quarter of 2018. On power quality, during the period under review, four (4) PQ recorders were installed and are being monitored remotely. During the period under review DSM continued to monitor the 5 smart G meters that were installed in Ndola region in October. These meters were installed on 2 MD accounts and 3 Commercial postpaid accounts (cell sites).

### Diesel Generation Performance

Generation (GWh)  
Litres (Consumed)  
Cost (K 'millions)  
Sales (K 'millions)  
Sales as a percentage of Costs

Year	
2017	2016
8.3643	19.249
2,389,889	5,670,453
21.277	48.687
2.185	7.728
10%	16%





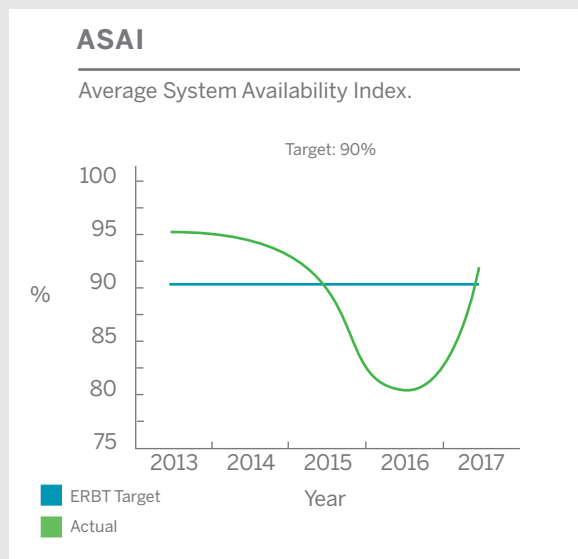
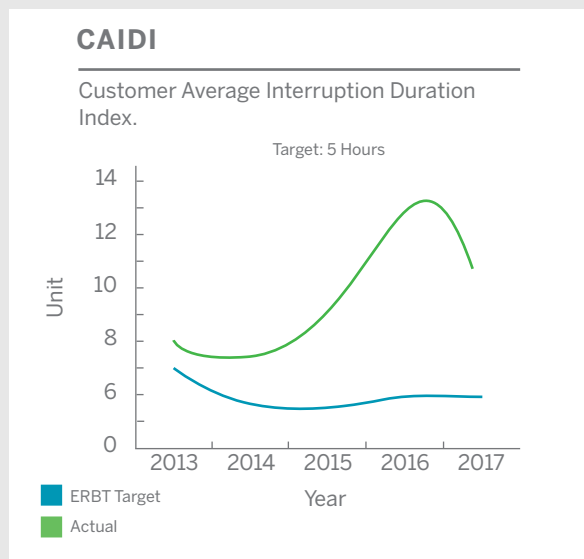
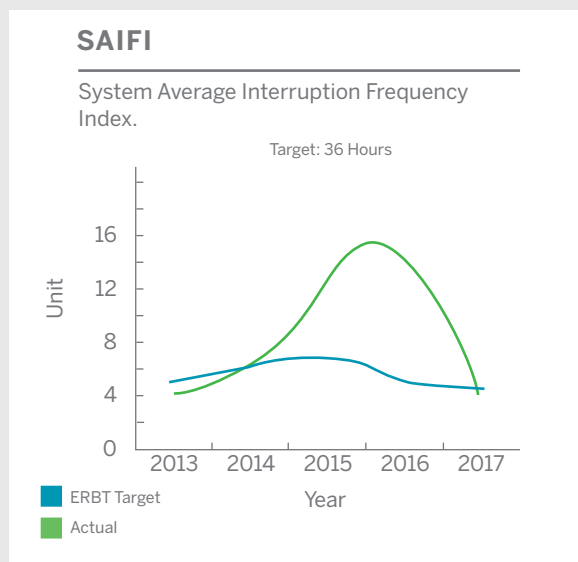
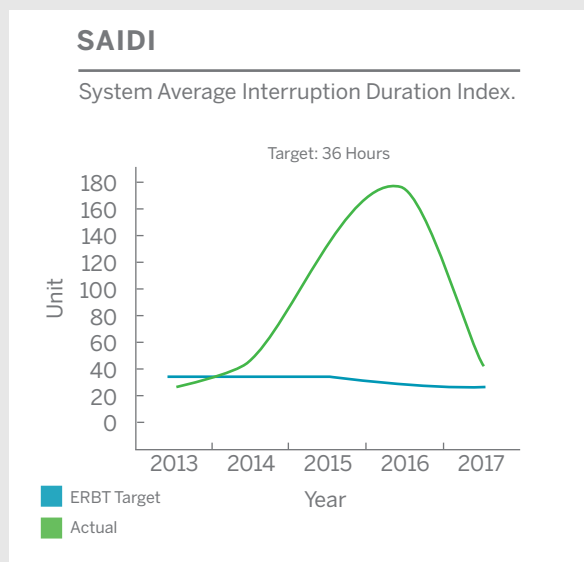
## In-house Transformer Maintenance

In the year under review, **713** distribution transformers were received at the Lusaka and Ndola Transformer Workshops while **351** distribution transformers were repaired. **400** Transformers were tested for external clients in the period under review. The Project to rehabilitate the two workshops is still in progress and is the reason for low production output. Delivery and installation of the new equipment has since commenced.

Works to rehabilitate the Ndola Transformer Workshops are ongoing. The Contractor from Hangzhou Qiantang River Electric (QRE) of China completed the civil works. Delivery and site installation of the equipment from the factory has commenced.

## Distribution System Reliability Indices

Performance of the Distribution system against Energy Regulation Board (ERB) Targets for the years 2011 to 2017 is as depicted by the indices below;



CAIDI remained highly unpredictable during the year at an average of 8.2 hours and was way above the ERB Target. This reflecting a lack of control on the fault resolution process. Management is working on standardizing the fault resolution process by determining how long it takes to carry out each of the key steps in the process and ensuring

that players adhere to set quality measures.

A number of initiatives have been adopted with a view to ensure improved distribution system performance. These cut across the four distribution divisions and are highlighted in the following section.

## Major Internal Activities to Improve Distribution System Operations

### Distribution System Maintenance

In order to ensure a sustainable distribution system, the following maintenance works were conducted in addition to other regular switchgear, transformer and line maintenance during the year.

At Barlastone 33/11KV 20MVA transformer 2 installation works are in progress. Oil filtration was done and results were satisfactory. Commissioning tests were completed. Pending is the connection of 33KV cables from transformer bushing to 33KV GIS Siemens switchgear.

The transformer upgrade at Mwembeshi substation from 33/11KV 5MVA to 33/11KV 10MVA was done. The transformer was installed and commissioned.

The Substation constructed under the DERP Project at St Bonaventure experienced a flashover in the 11kV panel for T1 33/11kV 26MVA, which affected the rest of the board with soot. Cleaning and subsequent testing of bus bars, spouts and switchgear were done and the two transformers put back into service.

In Kafue, the faulty 33/11KV 2.5MVA transformer at Livingstone turnoff was decommissioned, recovered and replaced with a 5MVA 33/11KV new transformer. Auto reclosers were also introduced on either side of the transformer to enhance Protection.

Palabana Substation in Chongwe was upgraded from 2.5MVA 33/11KV to 5MVA 33/11KV following the failure of the 2.5MVA Transformer.

At Kabundi Bulk Supply Point, ZESCO requested CEC to uprate capacity of the 66/11kV substation. A response from CEC on the schedule of implementation is being awaited. The upgrade might not be necessary if Transmission Projects – North implemented the proposed Kasompe 2 X 20 MVA, 66/11 kV substation, where two transformers have already been made available through the DERP project.

At Munic S/S, CEC has started the installation of 1x30MVA transformer & associated switchgear while the installation of the second 30MVA Transformer is still waiting for ZESCO to pay capital contribution. The uprating of the 11kV board is still undergoing procurement process on PR A03CR1058080.

Installation and commissioning of 33kV bay

for the 88/33kV transformer at Mpongwe East substation was completed. At the same station the Installation and commissioning of 2No. 5MVA 33/11kV Transformers is at 5%.

Four 11KV ACR auto-reclosers were installed; two were installed at Luangwa Substation to protect Zumbo and Soweto feeders, one was installed at Katete substation to protect Zemba feeder and the other one was installed at Lundazi substation on Lusuntha feeder.

On Mkushi Copper mine 33KV feeder at Kapiri S/S, a 33KV Circuit Breaker, Current Transformers and Protection relay were installed and commissioned.

A total of eight (08) 33KV and 11KV autoreclosers were installed in Kapiri Mposhi area and at Luwombwa Substation in Serenje.

In Choma, the substation at St Marks GMT was upgraded from 300KVA to 500KVA 33/11KV and at Ross 33/11kv Substation from 1000KVA to 2.5MVA.

In Livingstone, at Linda 33/11KV Substation, new 33 kV Control panels were installed and commissioned.

# Sustaining Our Human Capital

**Staff trained in 2017 up by 26% to 4,876 while expenditure on training up by 41% from K18.8m the previous year!"**

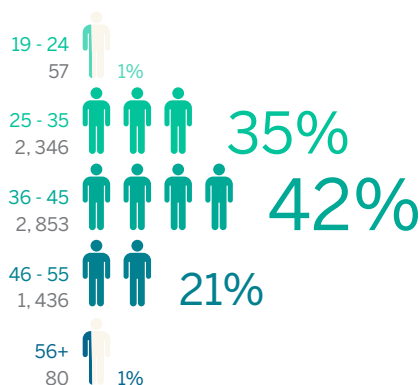
At the heart of every successful enterprise are the people through whom strategy is implemented. ZESCO like most organisations attaches tremendous value and continues to invest significantly in its employees. This is to ensure the provision of reliable and secure energy through an innovative and skilled team to its customers. The employee strength at the close of the year reduced marginally by a third of a percent (0.3%) to **6,772** (2016:6,791). The reduction was mainly due to dismissals and discharges coupled with the drop in corresponding reinstatements. Although a total of 172 staff were recruited during the year to compensate for these losses, the overall staff numbers significantly reduced. This despite recruitments carried out in 2017 being eight percent (8%) higher than the previous year. On a positive note, the number of employees lost through deaths and retirements reduced by twenty seven and eight percent respectively. However, those who left the organization on account of dismissals and expired contracts also increased by thirteen and fourteen percent respectively. No contract renewals were done during the year to compensate for the losses.

Below is a reconciliation of the staff numbers as at 31 December 2017.

Staff Headcount	2016	2017	+/_
As at 1 January	6,801	6,791	-0.1%
Add: Recruitments	159	172	8%
Reinstatements	15	7	-53.3%
Less: Resignations	(3)	(3)	0%
Deaths	(33)	(24)	-27.3%
Dismissals	(29)	(42)	45%
Retirements	(92)	(85)	-7.6%
Discharges Redundancies	(27)	(30)	11%
Expired Contracts	-	(14)	-
As at 31 December 2017	6,791	6,772	-0.3%

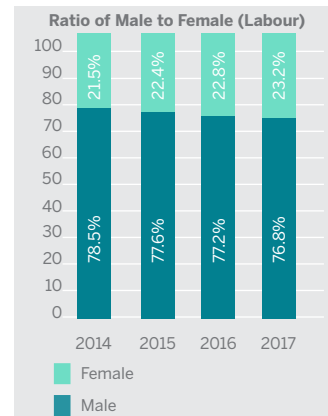
## Labour Profile

The majority of ZESCO's Labour has remained in the highly productive age group i.e. between twenty five (25) years and fifty five (55) years. Only two percent (2%) of the total workforce are outside this demographic.



## Age Range

Further, the corporation has continued to record a steady increase in the number of females amongst the workforce. This as a result of Management's commitment to establishing ZESCO as an equal opportunity employer.



Category	2017		2016	
	No	%	No	%
Executive Management	9	0.13%	5	0.07%
Senior Management	365	5%	361	5%
Middle Management	1,390	21%	1,263	19%
Supervisory staff	816	12%	573	8%
Skilled/Junior Supervisory Staff	1,825	27%	596	9%
Semi-Skilled Staff	1,704	25%	794	12%
Non - Skilled staff	663	10%	3,199	47%
Total	6,772	100%	6,791	100%

The number of non-skilled staff as a proportion of the total workforce has increased by 68 mainly due to the conversion of contracted employees to permanent and pensionable employment status. Currently, this category represents ten percent (10%) of the labour force and management is committed to improving staff skill sets through various trainings. During the year, Human Resources Development (HRD) facilitated both short and long term trainings. A total of four thousand eight hundred and seventy six (4,876) employees benefited from the various training interventions compared to three thousand eight hundred and eighty three (3,883) trained in 2016. This comprised of a hundred and ninety (190) employees on long term training, including sponsored, paid and unpaid studies, one thousand seven hundred and sixty (1,760) employees who attended short term training aimed at capacity building, two thousand three hundred and sixty four (2,364) employees who attended in – house system based training and five hundred and sixty two (562) employees who attended Awareness Programmes.

## Student Support

The corporation also provides opportunities for students to acquire much experience through various internship programs (industrial attachments) ranging from technical to support functions such as finance and human resources management. In 2017 a total of 328 students from various institutions of learning were offered opportunities for industrial attachment in several areas of our value chain. This being a twenty percent (20%) increase over the number of students in 2016 (274). Another 18 were allowed an opportunity to conduct academic research within ZESCO.



## Graduate Assessments

In our quest to deliver reliable and safe energy coupled with exceptional and quality service we have continued our Graduate Assessment Programs (GAPs). During the year, a total of five(5) sessions were conducted across the corporation. Twenty two (22) staff were assessed and fifteen passed the assessments while seven (7) had their program extended. The number of passed staff is a reduction from twenty nine in the previous year.

## ZESCO Training Centre (ZTC)

Our training Centre in Ndola continued to provide both generic and tailored trainings and a total of **151** students, a combination of ZESCO and non- ZESCO Employees, were trained. The training varied and included Overhead Lines Construction, Cable Jointing and Electrical Fitting. Of the total students trained, seventy eight (**78**) students were sponsored by ZESCO.

**Twenty-Six (26)** Miners from Konkola Copper Mines Limited, Rural Electric Authority and Mopani Copper Mines were also trained in various intensive courses which included cable jointing, ABC and Authorization. The school generated a total sum of **K343, 397.80** through the provision of such services.

As part of enhancement works to the Centre, ZESCO's Civil Department carried out construction and maintenance works at the Training Centre. Areas attended to include civil works on Training Sub –Station such as building internal demarcation walls, fabrication works and plastering. Further, a mobile test Laboratory stationed was procured and set up at the institution. Other civil works which included fixing the roof, constructing of a wall to protect the outdoor Generator set and painting were also completed.

## Staff Development

The corporation continues to invest in the continuous professional development of its staff and the acquisition of necessary additional skills. The corporation sponsors various staff, in core and support areas to acquire qualifications. This is done directly (through full time studies) and indirectly (by distance studies and also by providing study leave –paid and unpaid) to qualifying members of staff. Below is a breakdown of programs completed and number of staff trained in 2017.

Further during the year, thirty (30) members of staff were **fully sponsored** to pursue a Bachelor's degree in Electrical Engineering, fifteen (15) a diploma in Electrical Engineering, three (3) Advanced Certificate in Electrical Engineering and one (1) a certificate in Electrical Engineering.

Course	Number Trained
Masters in Solar Energy Engineering	1
Masters in Integrated Water Resources Management	1
Masters in Urban Management	1
Bachelors Degree in Civil Engineering	1
Bachelors Degree in Business Administration	1
Bachelors of Science in Supply and Purchasing	1
Degree in Electrical & Electronics	1
Degree in Computing and Information Systems	1
Bachelor of Business Studies	2
Diploma in Electrical Engineering	4
Advanced Certificate in Electrical Engineering	4
Overhead Lines Course	19
Cable Jointing Course	10
<b>Total</b>	<b>47</b>

Thirty eight (38) others were allowed to study on paid study leave as shown. Postgraduate studies in Solar Energy Management, Master of Mechanical Engineering and Hydro Power Development, Bachelor's degrees in Electrical engineering and mechanical engineering, diplomas in Electrical engineering and advanced certificates in Electrical engineering.

Over twenty-six million kwacha (K26.6m) was spent on training by the corporation during the year with four thousand eight hundred and seventy six (4,876) staff trained in both long and short term trainings. This representing an increase of 41% above 2016 eighteen million kwacha (K18.8m).

## Employee, Contractor and Customer Safety

We are also committed to ensuring that employees, customers and contractors operate in a safe and secure environment with a minimum threat of harm. During the year various contracts totalling **ZMW 8,352,694.21**, and **USD 1,939,642.67** were signed with various suppliers and manufacturers for the supply and delivery of personal protective equipment for the entire work force.

The corporation also recorded a number of accidents. Out of the strategic business units (SBUs) only Kafue Gorge, Transmission South, and Victoria Falls did not record any accidents during the year. A total of nine (9) fatal accidents and sixty-three (63) lost time injuries were recorded across the corporation. Most of the accidents were as a result of failure to follow laid down procedures and observation of road traffic rules by employees.

## Occupational Health

The corporation continued to provide occupational health services to its employees and the relevant communities through ZESCO clinics around the country under the occupational health department. The Occupational Health Department facilitated the spraying and rat baiting of offices and work areas mainly in Lusaka, in order to eradicate crawling and flying insects that had infested the areas and rats at main stores. The department worked in conjunction with the Lusaka City Council -Public Health Office-pests Control Unit to carry out this exercise.

The department also successfully conducted the annual Prostate, Breast and Cervical Cancer and Eye screening exercise at Ndola and Lusaka Staff clinics in the second quarter of the year. A total of three hundred forty-seven (347) employees were screened.

The department conducted a five days staff First Aid training for Lunzua, Chishimba and Shiwan'gandu power stations.

The Occupational Health Department conducted basic First Aid orientation programme for the bush clearing gang leaders. The aim of the orientation programme was to orient bush clearing gang leaders and their coordinators on how to use the First Aid box contents. A total of one hundred and five (105) gang leaders and coordinators in charge of the bush clearing groups under Transmission South were trained in readiness for the bush clearing exercise. Fifty one (51) gang leaders in charge of the bush clearing groups under Transmission North were also trained.

Occupational Health Statistics	2017	2016	(+/-)
Daily Attendance	27,784	28,744	-3%
Man hours lost (Sick off)	33,365	38,715	-14%
VCT	823	720	14%
ART Membership	812	762	7%
Condom distribution	212,829	284,935	-25%
Medical check-ups	699	130	438%
Deaths (ART related)	4	7	-43%
Deaths (Non- ART related)	21	26	-19%

Health surveillance and nursing care services were offered to bush clearing employees under Transmission North and Transmission South in different locations throughout the regions. Work site visits were also conducted in the various bush clearing camps.

The department conducted the Occupational and community Health awareness campaigns on the Kafue town – Muzuma – Livingstone 220/330KV upgrade Transmission Line project which is ongoing.

The induction on Occupational and Health awareness campaigns

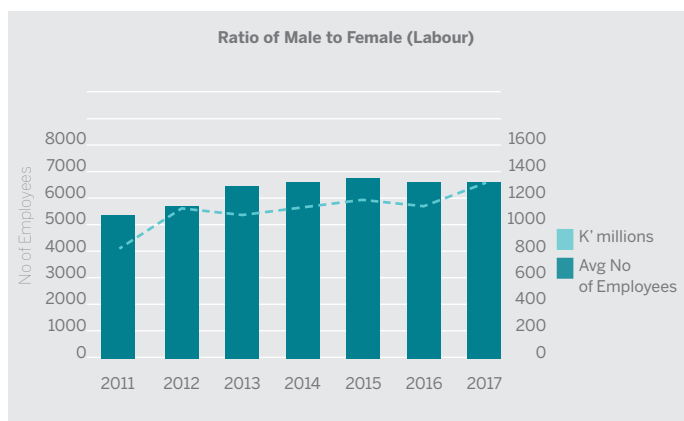
for the Construction workers and the communities on the Lundazi and Chama project was also commenced and is ongoing. Daily attendance to ZESCO health facilities reduced by 3% compared to the previous year while the number of man hours lost due to sick off also remarkably dropped by 14%.The total number of deaths reduced by 24% and this could also be an indication of improved health conditions of the workforce. However, the number of visits for check-ups recorded a drastic increase over 2016.Similar trends occurred in Voluntary Counselling and Testing (VCT) and anti-retroviral therapy (ART).

The User Acceptance Testy – HealthCare facility service Quality Assessment survey is scheduled to be rolled out in January 2018. However, the first phase of the survey which involves orienting focal point persons across all divisions on the use of the tool before going 'LIVE' was done.

The department registered a total daily attendance of 27,784 employees in the year under review. The man hours lost were 33,365. A total of 823 employees underwent VCT during the Year under review .The total number of employees and spouses accessing ARVs from the in-house HIV/AIDS scheme stands at 812, of which 450 are Male and 362 are Female.

## Future Outlook

The corporation is cognizant to the changing needs of our customers and the environment. To this end, skills are being sought in areas such as renewable energy like solar energy management, up skilling of core and non-core staff through trainings. We have also continued partnering with both public and private health institutions to devolve the availability of specialized health care to employees.



# Finance Directors Report

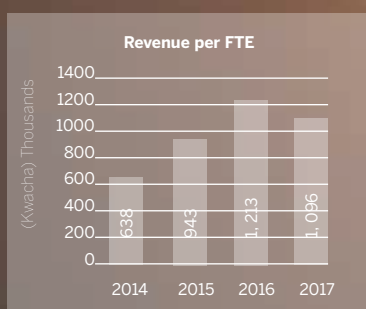
I am pleased to present ZESCO's financial highlights for the year ended December 31, 2017 in comparison with the 3 year historical. As we make easy for people to live a better life through the provision of safe and reliable electricity we are mindful to balance the business against the societal needs.

## Profitability

The performance of the corporation has been affected over the period under analysis due to a number of reasons, and among them are:

- The drought the country and in general the sub-Saharan region faced in 2015 to 2016 rain season had an adverse effect on our profitability. The lack of adequate water in our dams meant that the corporation had limited options to source cheaper electricity, this in itself eroded the profit margins.
- Financial Vs Economic Analysis: The customer demand has increased over time encumbered by inadequate supply of electricity and contractual electricity imports whose costs doubles the selling price. The expensive imports with some suppliers charging slightly above 18 cents/kWh (US\$) have been a major cause of the deteriorating financial performance, however, we had to seriously consider the economic benefits over the financial benefits as management to source for expensive imports.
- The cost of procuring electricity from the Independent Power producers especially with the introduction of Maamba coal fired power, is going to affect us in the short to long term as long as there are no cost reflective tariffs in place.

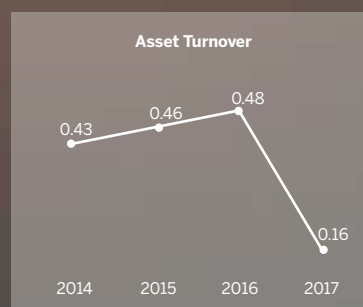
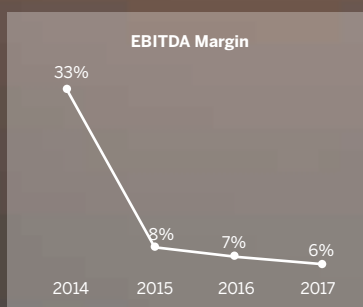
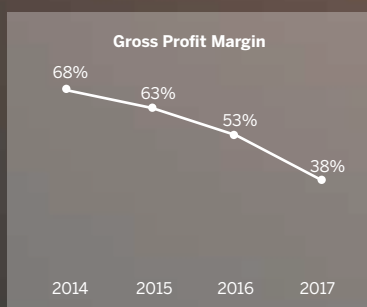
## Revenue per Full Time Employees



There has been a 72% increase in the Revenue per FTE from 2014, however year 2017 shows a drop of 10% from 2016 due to the drop in revenues for 2017.

## Gross Profit Margin

The gross profit margin in 2017 was on its lowest and was attributed to having a tariff that is much lower than the cost of procuring power. There are guided expectations from management that the Cost of Service Study may result in tariffs that are fair to all stakeholders. In this regard cost reflective tariffs are the only fair tariffs that could even act as a catalyst to power the sector to greater heights.



This clearly shows that all the performance metrics are lower than in the previous years due to the reasons already mentioned.



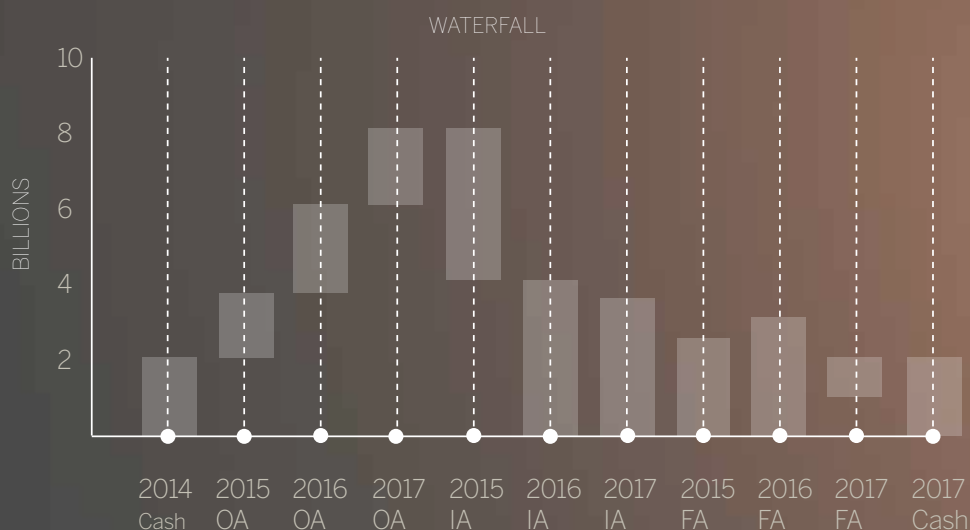
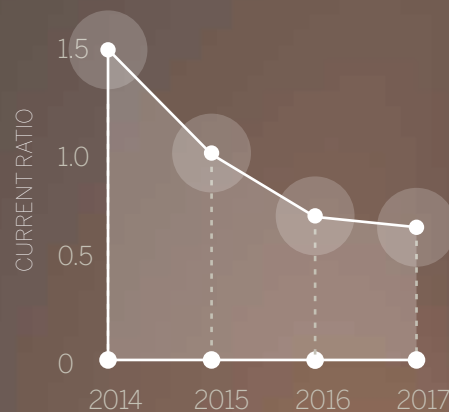
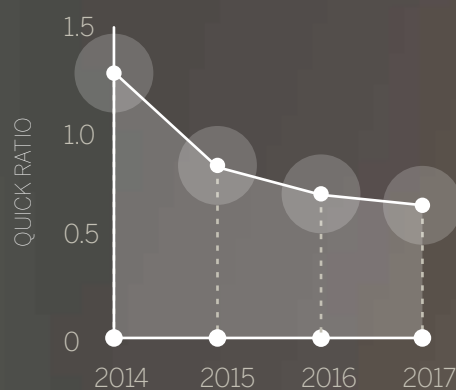
**Saidi Chimya**  
Director Finance



# Financial Dashboard

## Cash Management

### WORKING CAPITAL

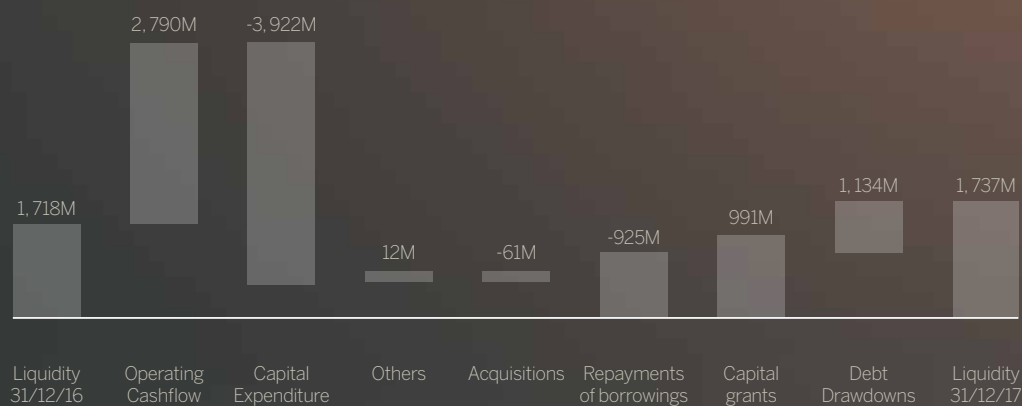


### Cashflows Development

The repayments of borrowing were 33% of operating cash flows and the corporation shall cautiously monitor this number as a key metric on debt sustainability.

### LIQUIDITY DEVELOPMENT

K'Millions



## CASH CONVERSION



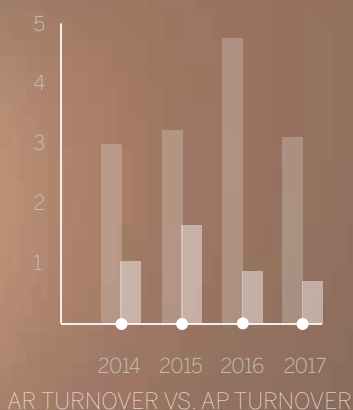
DAYS SALES OUTSTANDING



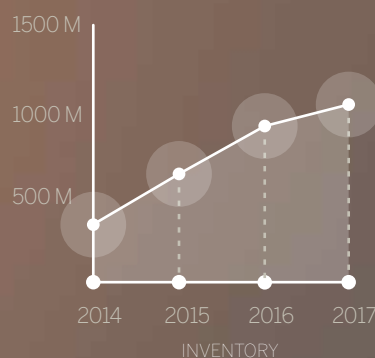
DAYS INVENTORY OUTSTANDING



DAYS PAYABLE OUTSTANDING



AR TURNOVER VS. AP TURNOVER



INVENTORY

### Outlook for 2018

2018 is likely to be a turning point year for ZESCO as we contractually drop off the expensive power imports from Karpowership in the first quarter and begin the renegotiations of the reductions

of tariffs with the IPPs. This decision will favorably improve our profitability and give us the leverage to unlock the trade payables currently sitting at very uncomfortable levels in our balance sheet. Through this action will be able to reshape ZESCO's legacy position as an economic engine and also accelerate

growth for our shareholders.

In a long while the book values of our assets were depressed and now with the revalued assets, our balance sheet is attractive and the gearing level is within the industry norm.

# Stakeholder Engagement

## Regulator

ERB, our regulator was constantly involved in the period under review. The KPI framework previously being used came to an end the period before the one under review. ERB then advised us the updated KPIs to be covered under the new framework that would be used till 2019. We strived to meet the set KPIs with a score of 61% in 2017.



## Government

The Government, our shareholder through the IDC had been constantly engaged in many issues. The engagement meetings had been both formal and informal. The Board chairman and Managing director had during the period accompanied the Vice president to commission the North western grid connection. Government had also been engaged in credit facility negotiations and mining tariff negotiations and implementation.



## Customers

We continued to engage our mining customers with support from the Ministry of Energy with a view to implement a tariff increase for all mining companies except 2 mines. For our domestic customers, after consultations, the tariff increase was done in two phases with the first 25% in May 2017 and going upto 75% in September.



## Lenders

We engaged our Lenders during the period to discuss compliance towards the convenats, Financing of projects as well as working capital.



## IDC - Shareholder



IDC, the company that manages affairs on behalf of the share holder is regularly kept updated with the events within Zesco Ltd. Relevant reports, mostly mandatory are submitted to the IDC. The IDC has set deadlines and we strive to meet those deadlines. Management continued to submit management reports as and when due. the 2018 Budget was also submitted i this period as guided by their deadlines.

*ERB, our regulator was constantly involved in the period under review. The KPI framework previously being used came to an end the period before*

## Employees



Our Managing Director together with his management team held various meetings with employees. These ranged from closed door meetings with the union leaders to open forums like labour day celebrations and award giving ceremonies. The relationship between Management and the workers remained cordial and transparent. Management awarded a ZMW500 salary increment across the board for Represented staff with 5% for Non represented to cushion employees from economic shocks.

*ERB, our regulator was constantly involved in the period under review. The KPI framework previously being used came to an end the period before*

## Community



Environmental Impact Assesment studies, Way-leave and land acquisition public consultation meetings with stakeholders were conducted for various projects across the value chain. This was to ensure that all projects complied with the legislative environmental requirements of Zambia.

*ERB, our regulator was constantly involved in the period under review. The KPI framework previously being used came to an end the period before*

# Our View on Taxation

**“The Company complies with the Country’s tax laws and ensures all tax returns are submitted timely. The tax governance and strategies is the responsibility of the Director Finance, oversight is provided by Corporate Management, Audit Committee and the Board.”**

In our day to day business transactions, we ensure that we deal with Suppliers, Consultants, Customers and Contractors who have valid registration with Tax Authority before they can be engaged for business with ZESCO Limited.

Our dealings with the Tax Authority are transparent and comply with the Tax Audits that were recently conducted by the Authority. The Company has developed capacity in its Tax department in order to improve the understanding of Tax laws that keep on changing. Further, the Company has engaged a Tax consultant to assist with capacity building in Strategic Tax Planning and Transfer Pricing Tax since the company has business relationships with Subsidiaries and Joint Venture entities.

The Company has had challenges in managing the Withholding Valued Added Tax (WVAT), due to cashflows challenges it has had on the Company. The new tax law was introduced at the beginning of 2017.

The company paid a total of K478 million in various forms of taxes as a sign of being good Corporate tax entity, thereby contributing to the country’s GDP growth. In addition, to the taxes paid the company obtained tax waivers on VAT import charged on power imports during the time of emergency power imports.

We carefully manage the tax risks and costs inherent in every commercial transaction, in the same way as any other costs inherent in every commercial transactions and any other cost. However, we do not engage ourselves in any transaction arrangements in order to avoid taxation nor to defeat the purpose of tax legislation.

The Company’s business is subject to the following taxes;

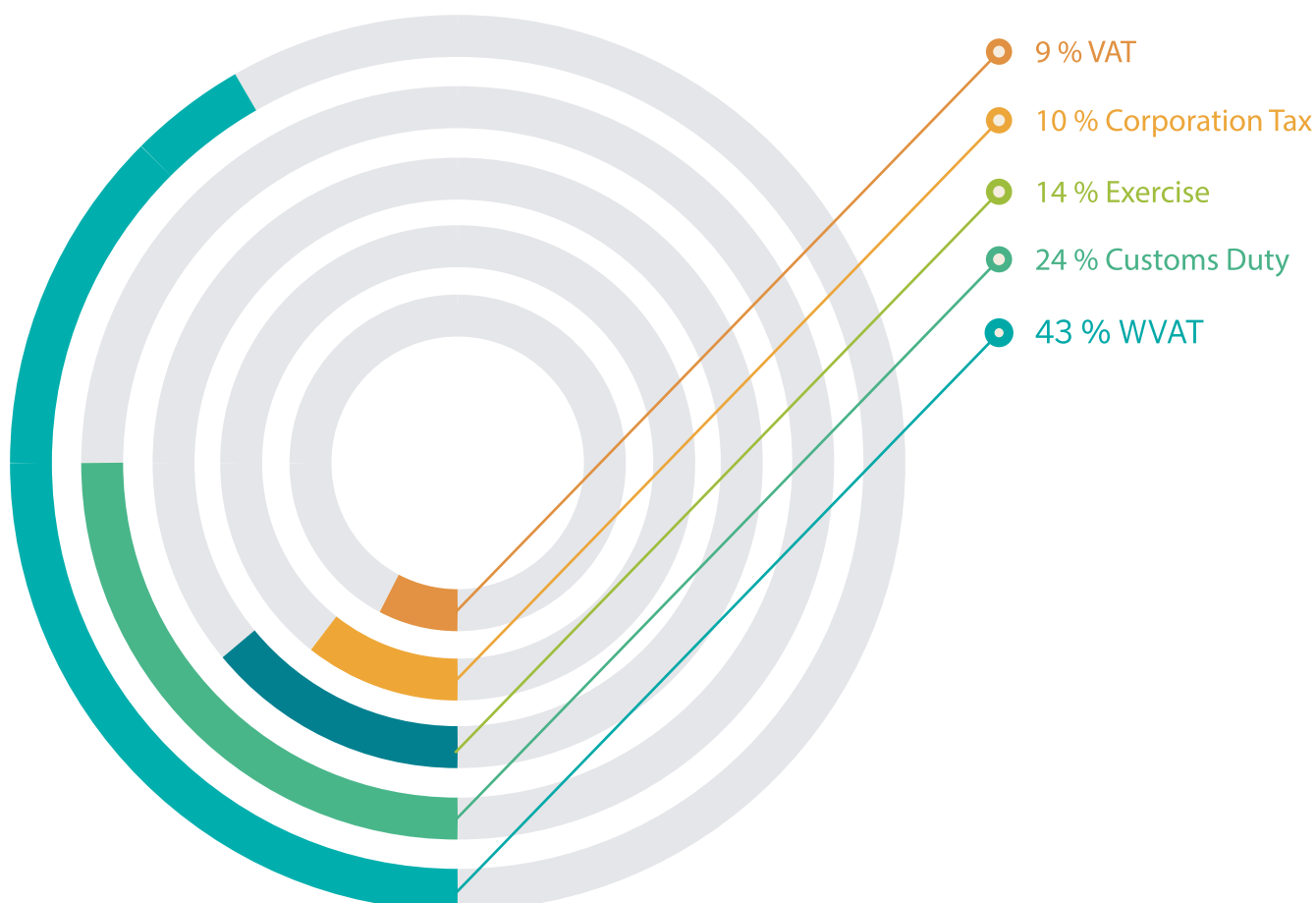
#### Domestic Taxes

- Value Added Tax
- Income Tax
- PAYE
- Property Transfer Tax
- Withholding tax
- Excise duty

#### Customs Taxes

- Customs duty
- Import duty

We are committed to providing full disclosures and other necessary information to ensure full compliance with the tax laws and regulations





# Fibrecom Business Overview

ZESCO Limited, created a subsidiary company called FibreCom Limited with a view to focus on growing the telecommunication business.

The Fibrecom Limited has installed capacity of 400 G, on the DWDM backbone network, which covers all provincial centres. The Metropolitan project will have installed capacity of 100G on the PTN in Lusaka and all Copperbelt provincial centres. Currently ZESCO Limited uses only 2% of installed capacity. This makes business sense to lease out the excess capacity on the 400 G, DWDM and 100 G on the PTN.

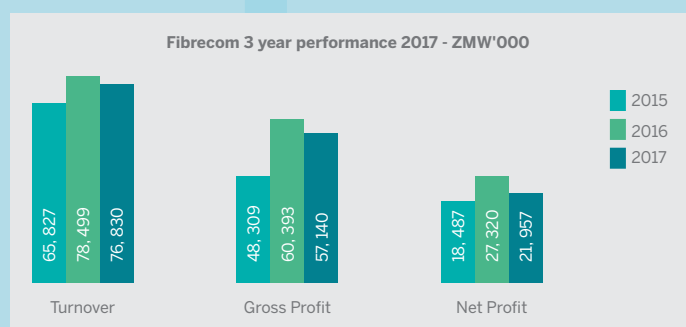
FibreCom currently holds Carrier of Carrier license, which limits the business as it is not allowed to connect households to it's FibreCom network system.

## Commercial Performance

FibreCom's turnover reduced marginally by 2% and operating expenses increased by 6%, resulting in marginal reduction in profitability in gross profit and net profit margins of 74% and 29% respectively 2017.

The company is expected to grow the business once the Metropolitan project has been completed. The Metropolitan project will enable the company to connect the households to fibrecom network system. The company intends to apply for an ISP Class Service License which will enable connecting household clients once the Metropolitan project has been concluded in Lusaka and Copperbelt towns.

Below is the Fibrecom performance highlights



FibreCom Assets will be delinked from ZESCO Limited Asset Register in 2018 financial year, following the conclusion of Asset Identification, Verification and Revaluation Project and a New Accounting System will be implemented.

The future prospects of FibreCom is bright and we are confident that it will contribute positively to the profitability for ZESCO Limited.



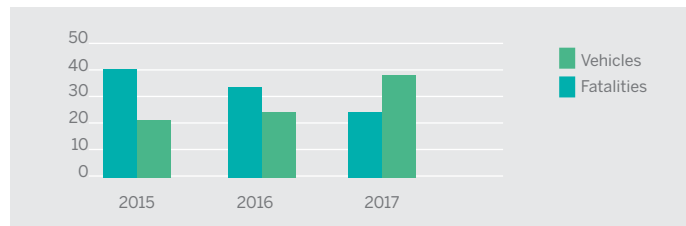
## Safety and Security Sustainability

The company continues to focus on Safety, Healthy, Environment, and Quality (SHEQ) of both employees, contractors and customers. The total number of fatalities reduced by 32%, while Motor Vehicle accidents increased by 65%. Despite the reduction in the number of fatalities, Management is still concerned with the high death rate of 23 lives lost in 2017. Management has tasked the SHEQ department to intensify the safety measures to all employees, contractors and customers in order to bring the fatalities to Zero.

We remain committed to strengthening our understanding, monitoring and controls related to process safety. Our target is to record zero incidences of fatalities and injuries, by sensitizing our employees, customers and contractors on Safety & Security in the work environment. Further employees are provided with protective clothing, as mitigating measure in Safety & Security of employees. Contractors working on our Projects are mandated to comply with safety regulation of the company. The company is working closely with communities in high density areas to sensitize the public on safety measures and dangers of electricity.

The company plans to conduct the defensive driving training for all drivers of corporate vehicles. This is aimed at sensitizing drivers of corporate vehicles to be more alert and attentive on the Roads and avoid Vehicle accidents.

Below is statistics of safety accidents.



## Security

The company has extended the installation of Access Controls and Closed Circuit Television (CCTV) to all strategic assets including generation, transmission and distribution in order to protect against vandalism and sabotage.

Further, the company has increased physical patrols of Transmission lines by both ZESCO and State Police, following increased vandalism incidences on key strategic installations during the year under review.

# Consultancy Services Department (Renewable Energy Division)

Renewable Energy Division is responsible for undertaking feasibility studies for future development of Hydro Projects both mini hydro and large hydro power projects. The mandate of the division is project identification, preparation and packaging prior to handing over to Generation

Development.

It is also charged with the responsibility of undertaking feasibility studies of Renewable Energy Sources for ZESCO Limited, working together with other key stakeholders such as Department of Energy, under the Ministry of

Energy, UNIDO and JICA. The identification of potential sites of development of renewable energy and financing of feasibility studies are done by the key stakeholders.

During the year under review, the following activities were under taken.

No	Project Name	Status	Status	Potential MW	Development Estimate Million - \$USD
1	Luapula Hydropower Projects ( <b>Technical Prefeasibility Study</b> )	Technical Pre-feasibility Environmental & Social Impact Assessment - ESIA	Prefeasibility in progress	1,2000 MW	1200 (Based on best 600MW)
2	Batoka Gorge Project	Feasibility Studies - World Bank	Feasibility in progress	1,2000 MW	4500
3	KGRTC Small Hydro	Feasibility completed. Realigning KGRTC and KGL in progress. The PIU is preparing financing model.	Feasibility Completed	10 MW	20
4	Mujila Small Hydropower Project	Prefeasibility Study completed. Application for funding made to GCF awaited. ESIA approved by ZEMA.	Feasibility completed	7 MW	30
<b>Renewable Energy - Small Hydropower Feasibility Studies to deliver Renewable Energy</b>					
6	Namundela Falls Project	Application for funding for full feasibility done GCF.	Prefeasibility completed	4.8 MW	10
7	Kalepela Project	Feasibility study reviewed and submitted to INIDO. Power evacuation study by ZESCO was submitted to UNIDO.	Feasibility in progress	4 MW	10
8	Mumburuma Project	Application for Funding for full feasibility made to GCF. Preliminary ESIA in progress	Prefeasibility completed	8 MW	20
<b>Prefeasibility on Small Hydropower Projects</b>					
10	Kaombe Small Hydro	Prefeasibility report submitted for Review.	Prefeasibility completed	7MW	15
11	Kakonko Small Hydro	Prefeasibility report submitted for Review.	Prefeasibility completed	8 MW	18
<b>Reconnaissance/Identification of Small Hydropower Projects</b>					
12	Malisa	ZESCO	Prefeasibility in progress	6MW	15
13	Mbulomututa	ZESCO	Prefeasibility in progress	11.5 MW	25
14	Mwansha	ZESCO	Prefeasibility in progress	4.5MW	10
<b>Thermal - ZESCO EDM Memorandum</b>					
15	Coal Fired Thermal plant	ZESCO and EDM signed MoU		600MW	1500
<b>MASEN/ZESCO Memorandum</b>					
16	Feasibility for 200MW Solar	ZESCO and MASEN signed MoU to establish a Joint Venture to invest in 200 MW Solar Projects in Muzuma;	USD\$ 1 million	200 MW	200
17	Feasibility for 150MW Wind Project	ZESCO and MASEN signed MoU to establish a Joint Venture to invest in 150 MW Wind Project	USD\$ 1 million	150 MW	150
18	Mixed-Use Office Complex	ZESCO	USD\$5 million		

# Governance

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Board of Directors 50

Corporate Management Profiles 52

## **Risk Management 56**

Risk Governance 56

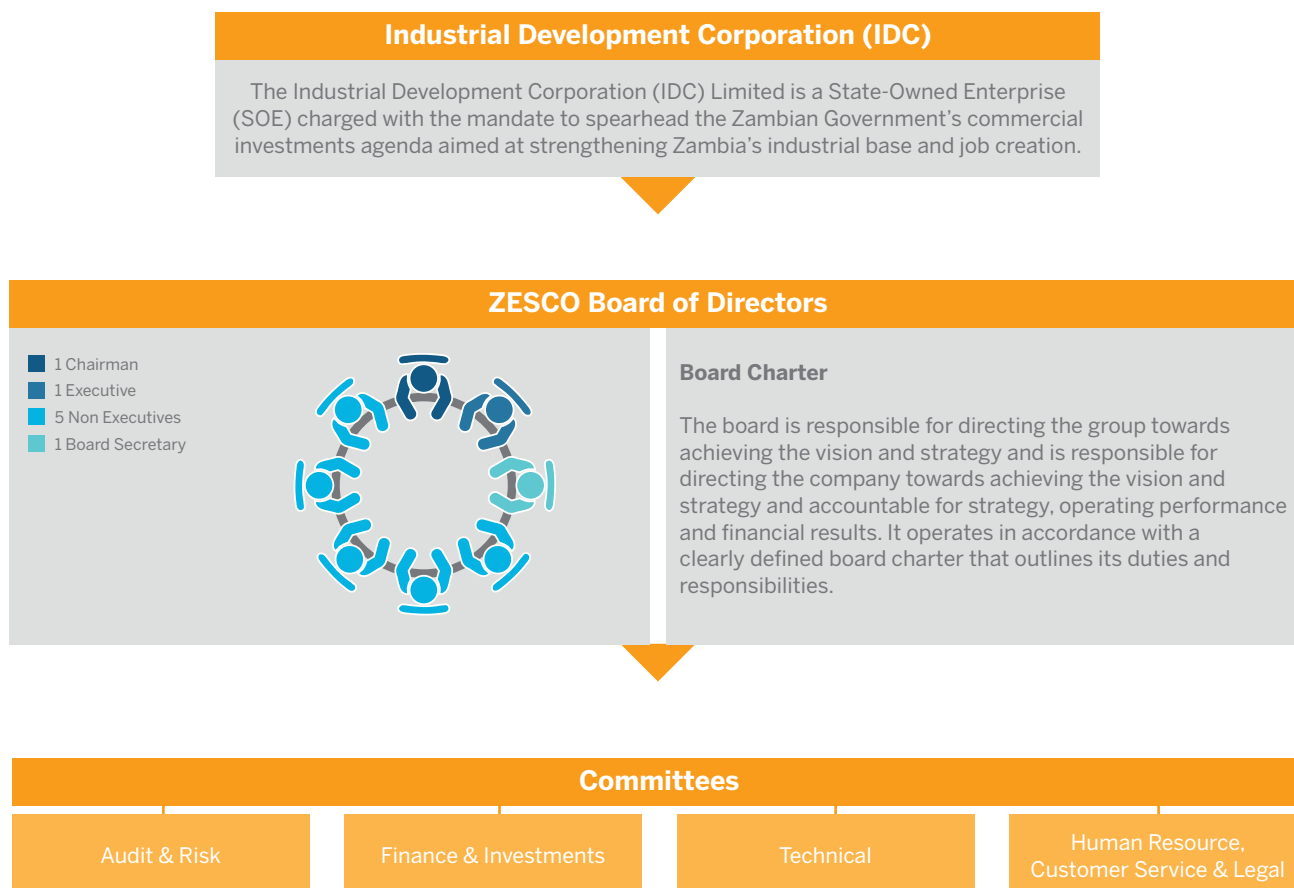
Risk Heat Map 56

Mitigating our top risks 57

# Governance Structure

**We consider good corporate governance as essential in enhancing the value of the company and the foundation of a sustainable business.**

The board structure is as indicated below and structured to provide efficiency decision making in the governance system.



## Commitment to ethical and effective governance

The Board is committed to the ethical and effective governance the board remains committed to good governance and international best practice standards. It is committed to ensuring an unequivocal tone from the top that requires a commitment by all directors and employees to the values of love, integrity, commitment, open to ideas and green environment and providing uninterrupted oversight over the company.

## Board appointments and resignations

We welcome the new Board for ZESCO which was appointed effective 17 July 2017 under the Chairmanship of Mr. Mbita Chintundya Chipala. Others Board members include:

- Mr. Victor M. Mundende
- Brig. General. Emeldah Chola
- Mr. George Mpundu Kanja
- Mr. Pythias Mulenga
- Mr. Chibwe D. Mwelwa
- Ms. Kavumbu Hakachima

## Leadership

### Role of the board

The board is responsible for the adoption of strategic plans, the monitoring of operational performance and management, and the development of appropriate and effective risk management policies and processes. The Board is satisfied that it fulfilled its duties and obligations in the 2017 financial year.

The following are the major decisions the Board undertook during the year.

Key Decisions	Comments
Contribute to and approve strategy	Approved ZESCO Limited new strategy. In 2018 there will be greater focus on delivery.
Provide oversight of performance against targets and objectives	Board received regular reports in order to perform its oversight and provide guidance on key performance areas.
Provide oversight on key risk areas	Adopted new risk tolerance and risk appetite framework aimed at enhancing the risk identification and monitoring process.
Ensure that the company is playing its role as a responsible corporate citizen	Considered a new stakeholder matrix which will ensure that the company enhances its key relationships with stakeholders, this matrix will be approved in 2018



## Board Committees

The board delegates certain responsibilities to the board sub-committees which comprise of the following:

- Audit & Risk
- Finance & Investment
- Legal, Customer Services and Human Resources
- Technical Committees

No:	Board Members	Board Meetings	Special Meetings	Sub-committees			
				Audit & Risk Committee	Finance & Investment Committee	Technical Committee	Legal, Customer Services & Administration
1	Dr. Mbita C Chitala	2/2	2/2	2/2	3/3	2/2	4/4
2	Mr. Victor M Mundende	2/2	2/2	1/2	3/3	1/2	-
3	Ms. Kavumbu Hakachima	2/2	2/2	-	-	2/2	4/4
4	Mr. Pythias Mulenga	2/2	2/2	2/2	3/3	-	-
5	Mr. George M Kanja	2/2	2/2	2/2	-	-	4/4
6	Brig. Gen. Emelda Chola	0/2	0/2	-	3/3	-	-
7	Mr. Chibwe D Mwelwa	2/2	1/2	-	3/3	2/2	-
8	Mr. McRobby Chiwale	1/2	2/2	-	-	-	4/4
9	Mr. Fidelis Mubiana	-	-	1/2	-	2/2	-
10	Mr. Webster Musonda	-	-	-	-	2/2	2/4
11	Mr. Denis Banda	-	-	-	-	2/2	1/4
12	Mr. Saidi Chimya	-	-	2/2	3/3	-	-
13	Mr. Chiti Mataka	-	-	-	-	-	4/4
14	Mr. Changala Nswana	-	-	-	3/3	-	-
15	Mrs. Rhoda K. Mwale	-	-	-	-	-	4/4
16	Mrs. Alice Simbaya	-	-	2/2	-	-	-
17	Mr. Boyd Simposya	-	-	-	-	2/2	-
18	Mrs. Mwila Kasase – Zulu	-	-	-	1/3	-	-

## Sub-committee responsibilities

### The Audit & Risk committee

- Review summarised information and engage external auditors to provide assurance on summarised financial information;
- Oversee integrated reporting (i.e. the integrity of the integrated report, its financial statements and the disclosure of sustainability for consistency with the financial information);
- Review annually and satisfy itself on the company's finance function and disclose such in the integrated report;
- Review implementation of the risk management plan at least annually and continuous monitoring;
- Determine levels of risk tolerance (annual risk tolerance to be set with risk limits and appetites);
- Develop a documented risk management policy and plan approved by the board;
- Ensure that risk assessments are performed on a continual basis at least once a year on a top-down approach;
- Ensure management continually implements appropriate risk management responses and risk

monitoring;

*The key decisions made during the year include:*

- Approved the Annual Internal Audit Plan;
- Recommended to the Board the Approval and Adoption of 2016 Audited Financial Statement;
- Recommended the Re-appointment of External Auditors for 2018 financial year;

### Finance and Investments committee,

- Ensure prudent financial management of the company;
- Review and recommend the annual budgets and forecasting for approve to the Board;
- To review the annual the Financial Statements and recommend for approve to the Board;
- To monitor quarterly financial performance and conduct reviews of the financial affairs of the company;

*The key decisions made during the year include:*

- Approved the Quarterly Management Accounts;
- Approved the Annual Budgets for

2018 financial year;

- Approved various Financing arrangements for Investments in Core Areas of business including Renewal Energy;

### The Technical committee

- To monitor technical performance of the company in terms of generation, transmission and distribution;
- To approve the technical annual work plans;
- To review the asset management policies of the company;
- To ensure compliance with technical standards set by Energy Regulatory Board, Engineering Institute of Zambia and other relevant Bodies;

*The key decisions made during the year include:*

- Reviewed the technical performance report and compliance to standard technical and recommended improvements;
- Recommended for approval the development of projects in Generation, Transmission and Distribution in line with the Company's strategy;



### The Legal, Customer Services and Administration committee

- To review Human Resources Plans, Policies and Processes;
- To review and approve the Customer Services Charter;
- To monitor on-going litigation cases and potential liability to the company;
- To review and monitor Human, Commercial and Legal performance of company;
- To approve staff condition of services for management staff;

*The key decisions made during the year include:*

- Approved the Human Resources Plans and Policies;
- Reviewed the Customer Services Charter;
- Approved the revised condition of services for Management Staff;
- Reviewed the Litigation status of cases for the Company and recommended;

### Corporate Governance Structure

In order to enhance further Corporate Governance in the Management of Procurement of Goods and Services, the Company fully complies with the Zambia

Public Procurement Act of 2008 and amended 2012.

### ZESCO Procurement Committee

The amended Public Procurement Act of 2011, delegate's authority of Procurement to Committees and Sub-Committees. A Procurement Committee is the highest approvals authority for the Procuring entity, and shall be responsible for providing prior authorisation of the procurement process in accordance with the procedures of the Act.

The responsibilities include;

- To ensure that all procurement of the procuring entity is conducted in accordance with the provisions of this Act.
- To promote transparency in the procurement of goods, works and services;
- To ensure adherence of rules and procedures of procurement of goods, works and services;

The Procurement Committee comprises of the Managing Director, and appoints four Executive Directors and two External Independent Members who are Procurement Specialists;



Read more about our Sub-committee responsibilities on Pages 50 to 53

## Procurement Sub-Committee

Procurement Committee has established various sub-committees with delegated level of authority to provide procurement authorisation for a Directorates and Divisions. This is to ensure effective and efficiency procurements of certain goods, works and services up to a certain limit;

The Procurement Committee shall be responsible and accountable for any

activities of the subcommittee.

## Governance of IT Risk

In order to enhance the governance of IT risk, the Company has implemented COBIT 5.0. COBIT 5.0 is a subset of corporate governance used to govern and manage business processes of the enterprise. It is an internationally recognized framework and supporting tool set that allow managers to bridge the gap with respect to control

requirements, technical issues and business risks, and communicate that level of control to stakeholders.

The main objectives of COBIT 5.0 include:

- To create value through optimisation of resources and risks;
- Regulatory compliance with relevant laws, regulations, contractual agreements and internal policies. Non-compliance with regulations may result

# Board of Directors

## 1. Dr Mbita C Chitala

*Board Chairperson - Independent non executive*

**Appointed:** July, 2017.

**Experience:** Dr.Chitala with a professional career in Public Administration spanning over 30 years in the areas of Project Planning and Management Organisation and Methods. He has served on various high level Zambian Government portfolios as Deputy Minister of Commerce, Trade and Industry and also of Finance and National Planning.

He has served on numerous boards including National Council for Construction, Comcapital Securities Limited and Pan African Radio Limited among others.

Dr.Chitala is a holder of a PHD – Public Administration from the University of Zambia. He also holds a Master's Degree in Public Administration as well as a Bachelor's Degree in Education both from the University of Zambia.

**Committees** ■ ● ● ● ●

## 2. Brig. Gen Emeldah Chola

*Non Executive Board Member*

**Appointed:** July, 2017.

**Experience:** Retired Brigadier General Emeldah Chola is the Energy Permanent Secretary (PS) at Ministry of Energy and Water Development. She held the same portfolio of PS at Lusaka Province, Ministry of Home Affairs and Ministry of Defense.

She studied Human Rights and Law of armed conflict at Lund University in Sweden and the Law of armed conflict for armed forces from San-Remo, Italy. She is a decorated retired Brigadier Gen from the Zambia Air Force where her career took off in 1975.

**Committees** ●

## 3. Mr George M Kanja

*Non Executive Board Member*

**Appointed:** July, 2017.

**Experience:** Mr. George Mpundu Kanja is a Lawyer by Profession. He holds a Bachelor of Laws (LLB) degree from the University of Zambia, a Master of Laws (LLM) degree from Queen Mary College, University of London, and a Postgraduate Diploma in Intellectual Property Law from the School of Law, University of Turin, Italy and a Postgraduate Diploma in Human rights from Raoul Wallenberg Institute of Human Rights, University of Lund.

He is bringing his legal acumen to the ZESCO management and Board in his private practice.

**Committees** ● ■ ■

## 4. Mr. Chibwe D. Mwelwa

*Non Executive Board Member*

**Appointed:** July, 2017.

**Experience:** Mr. Mwelwa is a Procurement specialist. Among other academic qualifications, he is one of the first Zambian to obtain a Master's of Science degree in Procurement from the University of Glamorgan, Cardiff, United Kingdom in 2004.

He is specifically conversant with international public procurement best practices and highly knowledgeable in procedures applicable to implementation arrangements and particularly familiarity with World Bank Procurement Guidelines and Procedures.

With a practical background as an Industrial Engineer and more than 16 years in Supply Chain Management, Public Procurement of Works and Construction Management, he has further become a Supply chain specialist, Procurement and Contract Administration Specialist.

**Committees** ● ● ●

1



2



3



4





in penalties and defaulting with various stakeholders.

- Improve Business Process to optimize resource allocation aimed at improving efficiency and effective service delivery.
- Provides a platform to mitigate the wide range of risk spectrum in relation to IT Governance.
- To development clear policies and best practice for information and related technologies control throughout enterprises. It adopts a holistic

approach focusing on business value creation over the value chain process.

COBIT 5.0 promotes separation of Governance and Management of IT and enhances security of IT, by providing internal controls in the IT working environment.

#### Internal Audit

The internal audit function, provides independent assurance on the adequacy

and effectiveness of the system of internal controls and risk management to manage the significant risks of the business down to an acceptable level. Zesco's corporate governance structure ensures effective internal controls and monitors the management of significant matters. As an independent value-adding assurance provider, internal audit provides assurance to the company's stakeholders on the system of internal control by performing the following functions:



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#### 5. Ms. Kavumbu Hakachima Non Executive Board Member

**Appointed:** July, 2017.

**Experience:** Kavumbu Hakachima is a holder of a Bachelor of Education Degree in Psychology Major and World History Minor obtained from the University of Zambia in 1996.

She has previously served on a number of Social Welfare Councils and Committees, particularly those involving raising awareness within the communities on Child rights and Child abuse issues, dealing with sexually abused Children and Women in hospitals and communication planning for behavioral change.

At the age of 27, received numerous awards and distinctions, including the Reebok Human Rights Award that was presented to her by the Nobel Prize Winner Archbishop Desmond Tutu in America - Salt Lake. She also served as a District Administrator for Chikankata District in 2015.

**Committees** 🏠 🍷



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#### 6. Mr. Pythias Mulenga Non Executive Board Member

**Appointed:** July, 2017.

**Experience:** Pythias Mulenga is an experienced professional with broad knowledge in finance, accounting, tax, audit and assurance services with work experience in Burundi, Malawi, Tanzania, Uganda and Zambia.

Prior to his appointment with D & G Management Consultants as Director for Audit & Assurance Services, Mr. Mulenga also served as a Senior Manager - Audit & Assurance Services at Abacus360 Chartered Accountants and Senior Audit Manager at PAX Consultants Chartered Accountants.

He has been a member of the Institute of Directors of Zambia (IoDZ), ACCA - Certified Accounting Technician (CAT), Technologist - Mechanical Engineering and a fellow of the Zambia Institute of Chartered Accountants (FZICA) and the Association of Chartered Certified Accountants (FCCA).

**Committees** 🏠 🍷



7

#### 7. Mr Victor M Mundende Managing Director

**Appointed:** July, 2017.

**Experience:** Mr. Victor M. Mundende is the Managing Director of ZESCO Limited. Previously he held the position of Chief Operating Officer a position which deputised the Managing Director.

Mr. Mundende graduated from the University of Zambia in 1991 with a Bachelor's Degree in Engineering and joined ZESCO Limited in the same year. He has worked in various positions spanning from operations in the power plants to development of new power plants in ZESCO's Generation Directorate.

He worked for over 8 years on Zambia's Power Rehabilitation Project (PRP). He has also worked as Director of Generation Directorate.

His responsibilities to the Board include but are not limited to ensuring that the Corporations objectives are met and the execution of the corporations strategy are presented and approved by the Board.

**Committees** 🏠 🍷 🍷

#### 8. McRobby V Chiwale Company Secretary

**Appointed:** June, 2017.

**Experience:** He is a holder of LLB Bachelor of Laws Degree, obtained from University of Zambia and also holder of LLM from Birmingham University, UK. He was formally admitted to the Zambian Bar in 1998 and has over 18years experience of practicing law.

**Committees** 🍷

#### Committees

- 🏠 Audit & Risk
- 🍷 Finance & Investment
- 🍷 Legal, Customer Services and Human Resources
- 🍷 Technical Committees

*Committees Chair shown in orange*



8

# Corporate Management Profiles







**Director Generation**  
Fidelis Mubiana (51)

**Appointed:** 6<sup>th</sup> March, 2015  
**Experience:** He is a holder of B.Eng. Mechanical Engineering obtained from University of Zambia. He has a Master's in Business Administration with Manchester University. He has over 23 years' experience in Engineering Management with technical and managerial skills in Hydro Power Generation.

**Committees**  

## Committees

-  Audit & Risk
-  Finance & Investment
-  Legal, Customer Services and Human Resources
-  Technical Committees

*Committees Chair shown in orange*



**Director Transmission**  
Webster Musonda (45)

**Appointed:** 6<sup>th</sup> March, 2015  
**Experience:** He is holder of B. Eng. Electrical Engineering obtained in 1996 from University of Zambia. He has over 20 years' experience responsible for a broad range of electric power system engineering activities at the detailed design, supervision and management level.

**Committees**  



**Director Distribution**  
Dennis Banda (53)

**Appointed:** 2<sup>nd</sup> December, 2016.  
**Experience:** He is holder of B. Eng. Electrical Engineering obtained in 1991 from University of Zambia. He has over 25 years' experience responsible for a broad range of electric power system engineering activities at Distribution power systems and part of the Power Rehabilitation Projects. He also possess a Master's Degree in Business Administration from Manchester University.

**Committees**  



**Director Finance**  
Saidi Chimya (57)

**Appointed:** 2<sup>nd</sup> December, 2016.  
**Experience:** He is a Chartered Certified Accountant, ACCA and a holder of Bachelor Degree in Accountancy obtained from Copperbelt University. He is a fellow of ZICA and ACCA, with wide experience in treasury management and corporate finance, accounting and budgeting and strategic planning and corporate governance.

**Committees**  



Sub-committee responsibilities continued from Pages 51

- Evaluating governance processes including ethics, especially the 'tone at the top'
- Performing an objective assessment of the effectiveness of risk management and the internal control framework
- Systematically analysing and evaluating business processes and associated controls
- Providing a source of information, as appropriate, regarding instances of fraud, corruption, unethical behaviour and irregularities.

The head of internal audit reports functionally to the audit committee and administratively to the Managing Director, and attends the audit committee meetings as a member and corporate management meetings by invitation. The function's activities are governed by the internal audit charter. The annual audit coverage plan is developed by applying a risk-based approach, and is reviewed and approved by the audit committee. It is revised regularly to ensure that it remains relevant to the key business priorities and changing risk environment.

All work is performed by teams of appropriately qualified and experienced employees, supplemented by co-sourced service providers. The company subscribes fully to the codes of conduct and ethics that are promulgated from time to time by relevant professional bodies. All work is conducted in line and complies with the internal auditing standards set by the Institute of Internal Auditors (IIA).

A summary of audit results, performance against the approved audit plan, and progress on the resolution of management action items, is presented quarterly to the audit and risk committees and monthly to the corporate management meetings. This enables the committees to ensure that prompt action is taken to address key areas of concern.

The company is yet to engage an Independent quality review in 2018, which is supposed to be done every five years, which is in line with Internal Audit Standards.



**Director Customer Services**  
*Chiti Kabwe Mataka (53)*

**Appointed:** 2<sup>nd</sup> December, 2016.

**Experience:** He is holder of Bachelor's Degree in Accounting and Finance from University of Zambia in 1986 and He is a Chartered Certified Accountant, ACCA obtained in 1999. He has vast experience in Accounting and Customer Services having worked as Chief Accountant in Distribution & Customer Services Directorate.

**Committees** ♥



**Director Human Resources and Administration**  
*Rhoda K Mwale (44)*

**Appointed:** 2<sup>nd</sup> December, 2016.

**Experience:** She is a holder of Bachelor of Arts Degree in Industrial Psychology major and a minor in Public Administration obtained from the University of Zambia in 1996 and a Master's Degree in Administration with over 19 years as a Human Resources Practitioner. She has vast experience in Human Resources Development and Implementation Strategic Performance Management System.

**Committees** ♥



**Director Strategy and Corporate**  
*Changala Nswana (53)*

**Appointed:** 2<sup>nd</sup> December, 2016.

**Experience:** He is a holder of Bachelor's Degree in Engineering Electrical Power and Machines Electric obtained in 1989 from the University of Zambia. He is also a holder of Master Degree in Business Administration from Manchester University. He has vast experience in Electric Engineering specialized in Protection and Strategic Planning.

**Committees** ●



**Director Legal**  
*McRobby V Chiwale (45)*

**Appointed:** 2<sup>nd</sup> December, 2016.

**Experience:** He is a holder of LLB Bachelor of Laws Degree, obtained from University of Zambia in 1996 and also holder of LLM in Commercial Law from Birmingham University, UK in 2007. He was formally admitted to the Zambian Bar in 1998 and has over 18 years experience of practicing law.

**Committees** ♥

## Integrity Committee

The company has established an integrity committee, which is responsible for the following:

- To spearhead the integrity and corruption prevention programme the ZESCO Integrity Committee was established in 2013 with the appointment of Committee members.
- Integrity Committee programme is a corruption prevention strategy established in line with Section 6(1) (a) (iv) of the Anti-Corruption Act No. 3 of 2012.
- The Integrity Committee objective is to spearhead the process of promoting integrity in ZESCO.

## Ethical Standard

A number of policies and interventions have been put in place to mitigate the risk of fraud and corruption, including the following:

- Whistle blowing policy
- Fraud prevention policy
- Fraud risk assessments

The Whistle blowing policy ensures that

all reported matters are confidential and anonymous unless it is specifically requested by the reporting party that her/ his identity should be revealed. Information is analyzed and forwarded to designated senior officials of the company, who decide on a corrective action to be taken. Employee induction training includes awareness of our response to ethics risk including anti-corruption.

Fraud prevention policy is aimed at highlighting any possible fraud in the company. It is the responsibility of any employee and other stake holders to report any suspecting fraud in the organization to the relevant offices.

Fraud risk assessments is held regularly through various means including questionnaires to the Chairperson of Audit committee, Managing Director, Director Finance and Director Human Resources.

Our ethics sets out our standards for ethical behavior, provides a guide to employees on how they should conduct themselves and interact with fellow employees, our stakeholders and the public in general.



## Sub-committee responsibilities

### The Audit & Risk committee

- Review summarised information and engage external auditors to provide assurance on summarised financial information;
- Oversee integrated reporting (i.e. the integrity of the integrated report, its financial statements and the disclosure of sustainability for consistency with the financial information);
- Review annually and satisfy itself on the company's finance function and disclose such in the integrated report;
- Review implementation of the risk management plan at least annually and continuous monitoring;
- Determine levels of risk tolerance (annual risk tolerance to be set with risk limits and appetites);
- Develop a documented risk management policy and plan approved by the board;
- Ensure that risk assessments are performed on a continual basis at least once a year on a top-down approach;
- Ensure management continually implements appropriate risk management responses and risk monitoring;

*The key decisions made during the year include:*

- Approved the Annual Internal Audit Plan;
- Recommended to the Board the Approval and Adoption of 2016 Audited Financial Statement;
- Recommended the Re-appointment of External Auditors for 2018 financial year;

### Finance and Investments committee,

- Ensure prudent financial management of the company;
- Review and recommend the annual budgets and forecasting for approve to the Board;
- To review the annual the Financial Statements and recommend for approve to the Board;
- To monitor quarterly financial performance and conduct reviews of the financial affairs of the company;

*The key decisions made during the year include:*

- Approved the Quarterly Management Accounts;
- Approved the Annual Budgets for 2018 financial year;
- Approved various Financing arrangements for Investments in Core Areas of business including Renewal Energy;

### The Technical committee

- To monitor technical performance of the company in terms of generation, transmission and distribution;
- To approve the technical annual work plans;
- To review the asset management policies of the company;
- To ensure compliance with technical standards set by Energy Regulatory

Board, Engineering Institute of Zambia and other relevant Bodies;

*The key decisions made during the year include:*

- Reviewed the technical performance report and compliance to standard technical and recommended improvements;
- Recommended for approval the development of projects in Generation, Transmission and Distribution in line with the Company's strategy;

### The Legal, Customer Services and Administration committee

- To review Human Resources Plans, Policies and Processes;
- To review and approve the Customer Services Charter;
- To monitor on-going litigation cases and potential liability to the company;
- To review and monitor Human, Commercial and Legal performance of company;
- To approve staff condition of services for management staff;

*The key decisions made during the year include:*

- Approved the Human Resources Plans and Policies;
- Reviewed the Customer Services Charter;
- Approved the revised condition of services for Management Staff;
- Reviewed the Litigation status of cases for the Company and recommended;

## Corporate Governance Structure

In order to enhance further Corporate Governance in the Management of Procurement of Goods and Services, the Company fully complies with the Zambia Public Procurement Act of 2008 and amended 2012.

### ZESCO Procurement Committee

The amended Public Procurement Act of 2011, delegate's authority of Procurement to Committees and Sub-Committees. A Procurement Committee is the highest approvals authority for the procuring entity, and shall be responsible for providing prior authorisation of the procurement process in accordance with the procedures of the Act.

The responsibilities include;

- To ensure that all procurement of the procuring entity is conducted in accordance with the provisions of this Act.
- To promote transparency in the procurement of goods, works and services;
- To ensure adherence of rules and procedures of procurement of goods, works and services;

The Procurement Committee comprises of the Managing Director, and appoints four Executive Directors and two External Independent Members who are Procurement

Specialists;

### Procurement Sub-Committee

Procurement Committee has established various sub-committees with delegated level of authority to provide procurement authorisation for a Directorates and Divisions. This is to ensure effective and efficiency procurements of certain goods, works and services up to a certain limit;

The Procurement Committee shall be responsible and accountable for any activities of the subcommittee.

### Governance of IT Risk

In order to enhance the governance of IT risk, the Company has implemented COBIT 5.0. COBIT 5.0 is a subset of corporate governance used to govern and manage business processes of the enterprise. It is an internationally recognized framework and supporting tool set that allow managers to bridge the gap with respect to control requirements, technical issues and business risks, and communicate that level of control to stakeholders.

The main objectives of COBIT 5.0 include:

- To create value through optimisation of resources and risks;
- Regulatory compliance with relevant laws, regulations, contractual agreements and internal policies. Non-compliance with regulations may result in penalties and defaulting with various stakeholders.
- Improve Business Process to optimize resource allocation aimed at improving efficiency and effective service delivery.
- Provides a platform to mitigate the wide range of risk spectrum in relation to IT Governance.
- To development clear policies and best practice for information and related technologies control throughout enterprises. It adopts a holistic approach focusing on business value creation over the value chain process.

COBIT 5.0 promotes separation of Governance and Management of IT and enhances security of IT, by providing internal controls in the IT working environment.

### Internal Audit

The internal audit function, provides independent assurance on the adequacy and effectiveness of the system of internal controls and risk management to manage the significant risks of the business down to an acceptable level. Zesco's corporate governance structure ensures effective internal controls and monitors the management of significant matters. As an independent value-adding assurance provider, internal audit provides assurance to the company's stakeholders on the system of internal control by performing the following functions:

- Evaluating governance processes

including ethics, especially the 'tone at the top'

- Performing an objective assessment of the effectiveness of risk management and the internal control framework
- Systematically analysing and evaluating business processes and associated controls
- Providing a source of information, as appropriate, regarding instances of fraud, corruption, unethical behaviour and irregularities.

The head of internal audit reports functionally to the audit committee and administratively to the Managing Director, and attends the audit committee meetings as a member and corporate management meetings by invitation. The function's activities are governed by the internal audit charter. The annual audit coverage plan is developed by applying a risk-based approach, and is reviewed and approved by the audit committee. It is revised regularly to ensure that it remains relevant to the key business priorities and changing risk environment.

All work is performed by teams of appropriately qualified and experienced employees, supplemented by co-sourced service providers. The company subscribes fully to the codes of conduct and ethics that are promulgated from time to time by relevant professional bodies. All work is conducted in line and complies with the internal auditing standards set by the Institute of Internal Auditors (IIA).

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Our ethics sets out our standards for ethical behavior, provides a guide to employees on how they should conduct themselves and interact with fellow employees, our stakeholders and the public in general.

# Risk Management

Our Enterprise Risk Framework is established to focus attention on risks that enable us to deliver our strategy.

Underpinned by our values, we proactively manage risk to enable the achievement of our strategic objectives and to maintain a positive reputation among our stakeholders. Risk management is inextricably linked to our strategy, is an essential element of sound corporate governance and a crucial enabler to exploit opportunities.

## Risk Governance

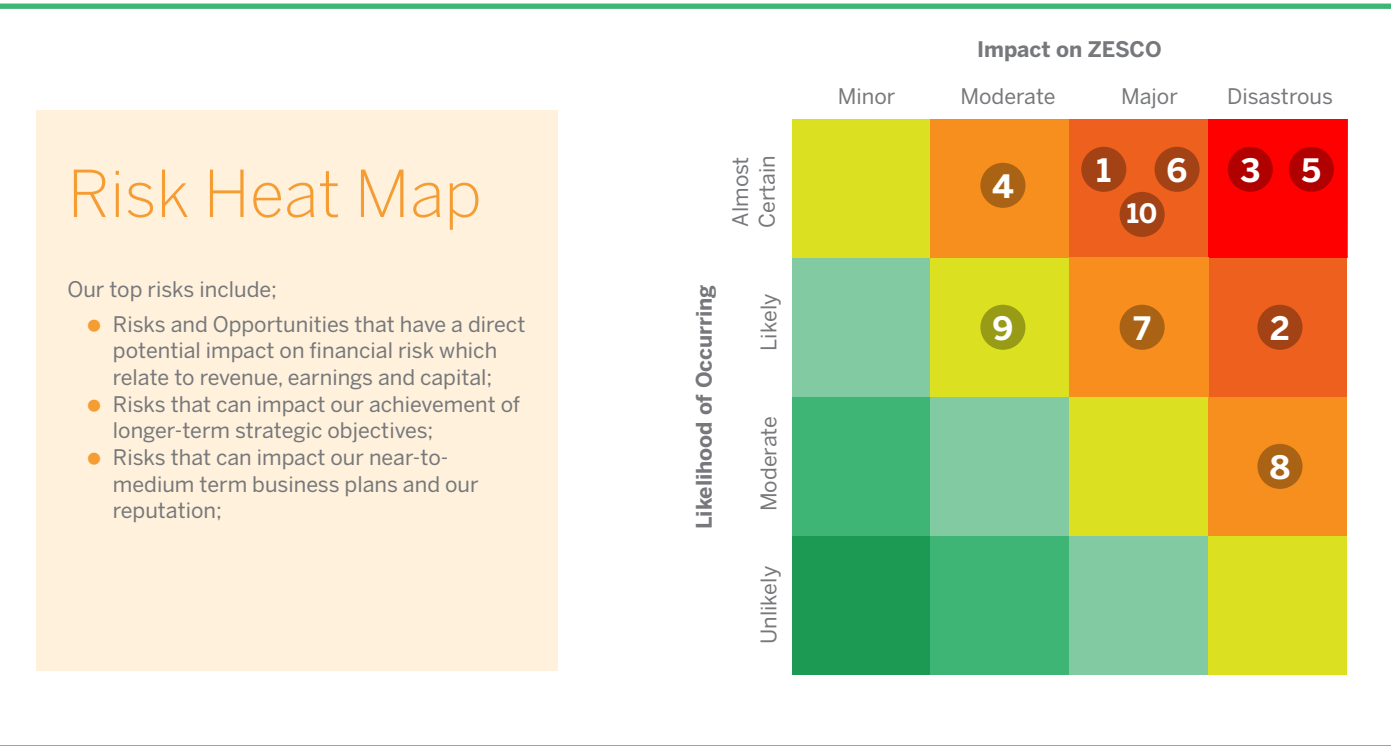
The efficient and effective management of risk is critical to the delivery of the company’s strategy and supports our investment case. The ZESCO board is accountable for all risks and delegates the responsibility for overseeing the effectiveness of risk management to the committees of the board. The board reviews and assesses the integrity of the risk management processes, and in conjunction with the Audit committee, it ensures that these processes comply with the relevant governance requirements and standards. Risk management is integrated with combined assurance to enhance assurance over.

### Risk Management Process

Our Enterprise Risk Framework is designed to enable us to identify, evaluate and mitigate our risks appropriately. It comprises of six steps:

- Identify**
  - Identify significant risks to achieving strategy and strategic objectives of the company.
- Assess & Analysis**
  - Assess inherent impact and likelihood using risk assessment matrix.
  - Identify risk type and determine target risk rating
- Design & Implement Controls**
  - Design and implement controls and actions to mitigate the potential impact and likelihood of risks
- Manage & Monitor**
  - Management of risks and controls to deliver target risk level
  - Monitor through inspection, performance reviews and regular reporting
  - Identify and implement remedial action
- Identify and implement specific**
  - Report & Evaluate & Improve remediation actions Report, Evaluate & Improve.
  - Report consolidated risk, assurance and control position and Audit committee.
  - Evaluate priority risks within risk profile to identify any corrective actions.
  - Drive continuous improvements through reviewing the Risk Universe and risk appetite

- Identify mitigating activities and key risks indicators and assess current risk exposure



# Mitigating our top risks

During the year, the following were considered to be material risks and the mitigation strategies that have been identified.

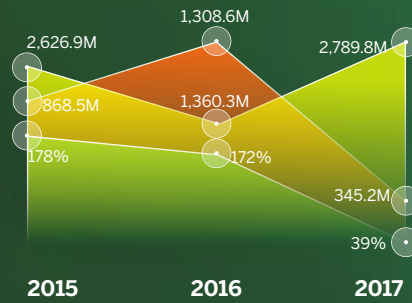
No	Risk Description	Potential Impact	Risk Mitigation
1	Political & Economical Risk	Government pronouncements (Policies) may have impact on the economy of the country such as issuance of Government Gurantees and support in raising Financing of the Company. The performance of the economy may affect the credit ratings of the country, which subsequently may adversely impacting on the Cost of Capital, for State Owned Enterprises.	Strengthening stakeholder engagement such as Shareholders and Policy makrers. Development strategies to re-position the Company to be self financially sustainable.
2	Changing Regulatory Environmental and Legal Framework	Sector reforms such as Open Access Market will result in competition due to increase in the number of players in the energy sector. The Energy sector is highly regulated industry with stringent tariff implementation process which impacts on cashflow generation. This impacts our profitability and cashflows of the Company.	"Implement new Strategy which will make the Company more Competitive in the face of Sector reforms. Continue to build strong relations with key stakeholders and regulators"
3	High cost of Power Purchases from Independent Power Producers	The tariff of purchasing power from IPPs, is 2 times more than the selling tariff. This has resulted in cashflow challenges and threatens the sustainability of the business.	Sector reform - Open Access Market Tariff migration path to cost reflective level.
4	Financial risks - Interest,exchange and credit risks	The increase in interest rates is likely to have negative impact on the repayment of existing loans & interest and may result in increased cost of capital. The credit risk of may lead to defaulting in meeting both current and long term obligations as they fall due. The flactuations in exchange rate especially that most of our raw materials and power purchases from IPPs are invoiced in US\$dollar.	Use hedging instruments where available and economically feasible. Limit the borrowings to the strengthen of the balancesheet interms of repayment.
5	Risk of the impact of environmental challenges on the sustainability of our business model	The climatic changes may impacted negatively our business sustainability as over 95% of our generation is hydro-dependent.	Implementation of generation mix and development of Hydropower stations in the Northern part of country to spread the risk of drought.
6	Failure to deliver on our strategic objectives	A number of initiatives are currently being implemented, inability to fully implement the initiatives will directly impact our business objectives and our ability to raise future cashflows.	The Board and Corporate Management regularly review the capabilities required to deliver on the strategy and address gaps as they arise.
7	Cybersecurity	An increase in cyber attacks worldwide and new hardware and software vulnerabilities could compromise our networks, systems, customer information and corporate information.	"Enhance security monitoring, threat intelligence and incident management capabilities. Continue implementation of the cyber security approach and strengthen the information security corporate level."
8	Risk of Safety, Health or Environment undesirable event or liability occurring	Risk of failure to protect the health, safety and security of customers, employees and third parties may impact on the reputation and financial loss arising from the loss of equipment, injury or loss of lives	Our zero harm philosophy and SHEQ Excellence approach that standardises initiatives to enhance safety performance. Continued focus on process saftey management and interaction with various global netwrosk, regular internal and external audits.
9	Risk of not building and sustaining trust based relationship with stakeholders	Risk of failure to effectively manage our key stakeholders may affect achieving our strategy. Effective stakeholder engagement and management will be critical in tariff migration to economic level and IPPs.	Regular engagement of key stakeholders by the Board Chairperson and Chief Executive such as governments, regulators,financiers, media and communities.
10	Balancesheet strengthening and Credit position	Risk that the balancesheet may not be resilient with implications for credit risk, liquidity risk and inability to access long term financiing and also to meet long term financial obligations as they fall due.	Consider other cheaper financing options to raise funds, rather than obtaining loans.  Restructure the existing loan terms i.e tenure & interest payments. Proactive stakeholder engagements - government, financiers. Suppliers and customers.



# Performance Reports

## Scorecard

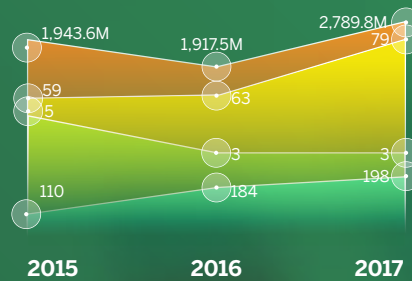
### Financial Capital



#### Key:

- Profit for the year
- Cash generated by operating activities
- Debt/Equity

### Human Capital



#### Key:

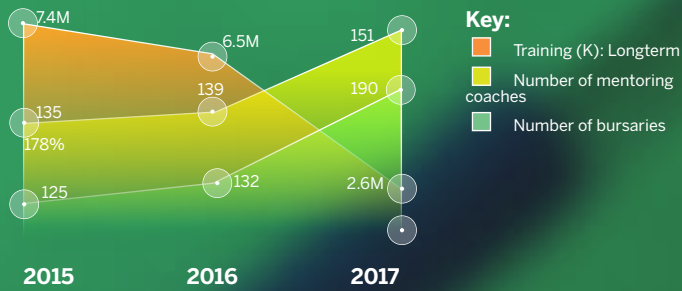
- Staff Costs (K)
- Artisan training
- Resignation
- Human Resource wastage



#### Key:

- 2015
- 2016
- 2017

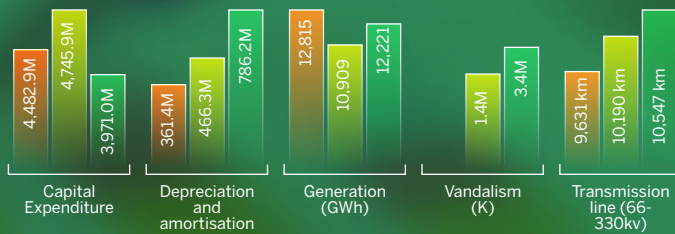
## Intellectual Capital



## Manufactured Capital



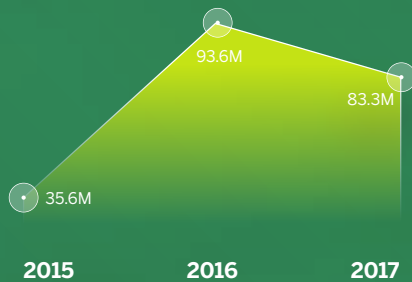
**Key:**



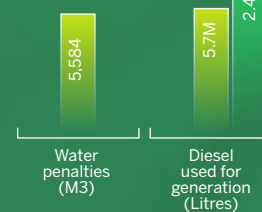
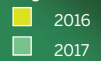
## Natural Capital



**Key:**



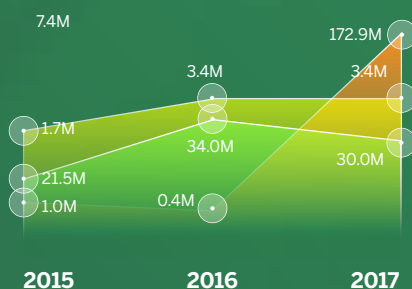
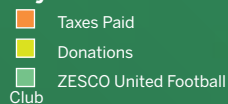
**Key:**



## Social and Relationship Capital



**Key:**



# Creating Value Through Association





# Generation

In Generation Directorate, the EPC contractor, Sinohydro Corporation Limited, progressed well with the works at the Kafue Gorge Lower Hydropower project. Construction of the hydropower plant advanced with the excavation of the dam site being finalised following the river diversion. Concreting works in the powerhouse as well as excavation of the headrace tunnel also progressed very well during the period under review. Overall progress was estimated at 24%. The evacuation lines ESIA conducted by ZESCO has been completed but yet to be submitted to ZEMA for approval.

During the period under review Zambezi River Authority concluded discussions on the Batoka Hydropower Project with the World Bank, AfDB and consultants updating the 1993 Feasibility Study to pave way for extension of the expired contracts. The World Bank extended the CIWA grant to 31st August 2018 and issued a 'No Objection' for the extension of the Transaction Advisory Service Contract. The PIU also progressed on the processes leading to the operationalization of the SPV and acquisition of the Project land. During the same quarter

Batoka Hydropower Project was presented to potential investors during the Third PIDA Week that was held in Windhoek, Namibia from 10th to 13th December 2017. The main objective of the event was to present PIDA Projects in concise project briefs (Project Information Memorandum, PIM) that provide necessary information to the public and private investors for further project development.

Musonda Falls Power Station (MFPS), overall progress on the rehabilitation and up-rating works is estimated at 99%. Turbine-Generator Units 6 and 7 completed commissioning tests and reliability run, whilst Units 1 to 5 completed commissioning tests with reliability run still on-going by the end of the Quarter. Site handover that was scheduled for 18 November 2017 was not achieved.

At the Lusiwasi Upper 15 MW hydro project, the overall progress is estimated at 48% against scheduled 90%. The EPC contractor reported unforeseen ground conditions at the Fore bay and along the diversion canal work areas and submitted a formal claim

for extension of time as a result of this. The claim was reviewed by the Project Manager, Multiconsult UK, and negotiated for settlement. Recommendation for extension of time by 12 months and compensation estimated at US\$1.4m was submitted to Corporate Management for authorization.

Progress on the 86MW Lusiwasi Lower hydro project was that the contract was signed with Sinohydro during the year after no-objection decision received from the Attorney General's Chambers

Chishimba Falls Power Station (CFPS) Project, procurement of consultancy contract to deliver a rehabilitated and uprated Chishimba Falls 15 MW run-of-river scheme was in progress. Results of re-evaluation and recommendation to withdraw award notice from SMEC/ILF and invite Fichtner for pre-contract negotiations was submitted to KfW for no-objection decision. Calls for pre-qualification for EPC contracts split between civil structures and electromechanical plant/equipment closed during the period with 23 companies successfully lodging in documents.



Musonda Falls Power Station (MFPS)



Chishimba Falls Power Station (CFPS) Project,

# Transmission

During the year, the Directorate continued to implement a number of new projects as well as others aimed at reinforcing and rehabilitating the existing system. A robust transmission network is key to satisfying the expected future demand for electricity, facilitating evacuation of power from new generating plants and promotion of regional trade in power through interconnectors.

Some of the projects completed during the year under review included:

- The USD 163 million connection of North Western Province to the national electricity grid which was completed in July and officially commissioned in September 2017 by Her Honor the Vice President of the Republic of Zambia. This also saw the decommissioning of the expensive and unreliable diesel generator sets in Mwinilunga, Mufumbwe, Kabompo, Zambezi and Chavuma including Lukulu in Western Province;
- Provision of construction power to the

Kafue Gorge Lower Hydro Scheme site at a cost of USD 11.5 million. This was put in service in July 2017;

- Kafue Town – Muzuma – Victoria Fall Upgrade project which was partially completed following the commissioning of 330kV GIS at Kafue Town substation, Commissioning of upgraded Muzuma substation and completion of stringing of the Kafue – Muzuma line from 220kV to 330kV operation. The remaining works for the new Mukuni 330/220kV substation are earmarked for completion by 2018 first quarter.

## ITT – Mumbwa - Lusaka West Transmission Line Project

This project was partially commissioned in 2016 following the completion of the transmission lines linking Lusaka West, new Mumbwa substation and ITPC, which allowed evacuation of power from the newly built ITPC Hydro Scheme. The Mumbwa substation was fully completed and commissioned in the year under review and the 330kV transmission line linking Kalumbila mine also being put in service. This is a USD 133 million project that was jointly financed by the African Development Bank (AfDB), European Investment Bank



(EIB) and Agence Francaise de Development (AFD).

### Connection of Luangwa to the National Grid

This project aims at replacing the expensive and unreliable diesel generation supply at Luangwa with quality hydropower from the Grid as well as increase access to electricity in Luangwa district. The USD63.4 million project was initially awarded to PME and later terminated due to poor performance. In December 2016, ZESCO awarded new contracts to KEC and Howell Energy Systems for completion of outstanding works for lines and substations respectively and works have commenced following payment of advance payment in July 2017. Completion and commissioning is scheduled for June 2018.

### Connection of Lundazi and Chama to the National Grid

The project for connection of Lundazi and Chama Districts (currently getting power from ESCOM Malawi) was awarded to ETERN and Sinohydro for construction of substations and transmission lines respectively, at a cost of USD 64 million. Sinohydro mobilized to site and commenced works during the year under review. However, there were challenges for ETERN whose component was still awaiting issuance of GRZ Guarantee to achieve financial close. They are expected to mobilisation in 2018 quarter one. The project has a delivery period of 18 months.

### Lusaka South MFEZ 330kv Transmission Project

The USD36 million substation contract was awarded to Vijay Electrical Limited in 2014 and the ZMK4.6 million transmission lines Contract was awarded to Power Engineering Limited (POWENG) in October 2015. Sufficient progress was recorded as recorded in the year with the first 150MVA, 330/132/33kV transformer expected to be commissioned by end of quarter one in 2018. This will also facilitate supply of power to the new cement plant investment by Mphande Limestone which is owned by SINOMA.

### Kafue Town – Muzuma –Victoria Falls 220kv Transmission Line Upgrade Project

The project involves the upgrading of the existing 348km of 220kV transmission line from Kafue Town to Livingstone via Muzuma substation to 330 kV in order to increase the power transfer capacity. The project cost is estimated at US\$100 million and the financiers are the World Bank and the European Investment Bank.

Procurement of all packages (five in number) for the project was concluded by the end of the year under review. Three out of the five contracts were signed by the close of the year 2014.

### Pensulo – Msoro – Chipata 330 kV Transmission Project

This project is aimed at improving the power quality to Eastern Province as well as increase the transmission capacity to the area. The project will also enhance the possibility of the development of power interconnectors with Malawi and Mozambique. The total cost of the project is about US\$150 million and is financed in a similar manner as the Pensulo – Kasama 330 kV Transmission project.

The scope involves construction of about 280 km of 330 kV transmission line and a Greenfield substation in Chipata and upgrading Msoro 66 kV substation to 330 kV.

This project progressed well during the year. About eighty percent of the foundations and twenty percent of the towers had been cast and erected respectively.

### Connection of North Western Province to the Grid

The project objective is to replace the expensive and unreliable diesel generation supply in Mwinilunga, Kabompo, Mufumbwe, Zambezi, Chavuma and Lukulu with quality and inexpensive hydropower from the Grid. The project is estimated at US\$163 million. The financing for the project is through an export credit loan from EKN of Sweden and a commercial loan from Standard Chartered Bank of South Africa.

The project has an extensive scope involving the construction of about 800 km of 132 kV transmission lines and eight 132 kV substations in the districts currently served by diesel generators. The project experienced setbacks with regard to tax exemption. By the end of the year, the tax exemption had not been implemented by the Zambia Revenue Authority. This led to a serious pile up of materials and equipment in Dar-Es-Salaam. Some works on the transmission line between Mwinilunga and Lumwana have commenced, but at a slow rate owing to the unresolved tax issues.

### 330kV Pensulo – Mansa, Kabwe – Pensulo and Kasama – Nakonde Projects

The 330kV Pensulo – Mansa, Kabwe – Pensulo and Kasama – Nakonde Transmission projects contracts were signed in 2016. Financing processes were still in progress. The government waiver for local taxes for the Improvement of Power Supply to Mpika district was still outstanding with the Ministry of Finance having turned down ZESCO's latest application for a waiver on the local taxes.

### Other Projects

Other projects which continued being implemented during the year under review include:

- Power supply to the PLR Manganese processing plant in Serenje at a cost of USD 3.6 million.
- Kasama-Nakonde, Kasama-Mporokoso and Kasama-Kayambi transmission project also progressed with the signing of the loan agreement between ZESCO and the Industrial and Commercial Bank of China (ICBC). Other preparatory works like detailed design, geotechnical tests also continued. This a USD 288 million project. The project is being executed by TBEA Co. Ltd.
- Kabwe – Pensulo second 330kV line that is being constructed at a cost of USD 132 million also made progress with the signing of the loan agreement with China EXIM Bank. The project is being executed to China Jiangxi.
- The project for extension of the 330kV transmission backbone into Luapula Province (Mansa) also progressed with ZESCO paying part of the Advance Payment during the year under review. The loan Agreement is expected to be signed in quarter 1 of 2018.
- The USD 38 million project for improvement of power supply to Mpika District also commenced with TBEA, the EPC contractor mobilized to site for commencement of earth works during the period under review. The project was also granted waiver for import duty and import VAT. Much of the progress is expected in 2018.
- Progress was also recorded on the Kolwezi – Solwezi and Zambia – Mozambique transmission interconnectors with the appointment of consultants for the technical and environmental studies for the two projects. It is expected that these studies will be finalized in 2018.
- Discussions on the ZIZABONA project also advanced during the year and it was agreed that the project be phased to prioritize infrastructure that will facilitate commencement of minimal volumes of power trading amongst the member countries. Discussions have now focused on securing financing for phase 1.
- The project for evacuation of power from the 15MW Lusiwasi Upper Hydro Scheme also recorded progress with the appointment of POWENG (Z) Ltd to construct the necessary transmission infrastructure at a cost of USD 2.97 million.

# Distribution

## Increased Access to Electricity Services (IAES) Project

The project comprises two main components; System Reinforcements and Intensification & Grid Extensions and is financed by the World Bank through an IDA Credit, other multilateral lending institutions and a grant from the Global Environmental Facility and JICA. Among others the project aims are;

To increase access to electricity services measured by

- number of connections through grid and off grid electrification
- increased access rate in terms of a large share of population
  - Improvement of ZESCO's operational efficiency in targeted investment areas as measured by reduction of distribution losses and
  - Improvement in service quality in targeted investment areas as measured by reduced unplanned outages in targeted investment areas.

The brief scope of works involved are;

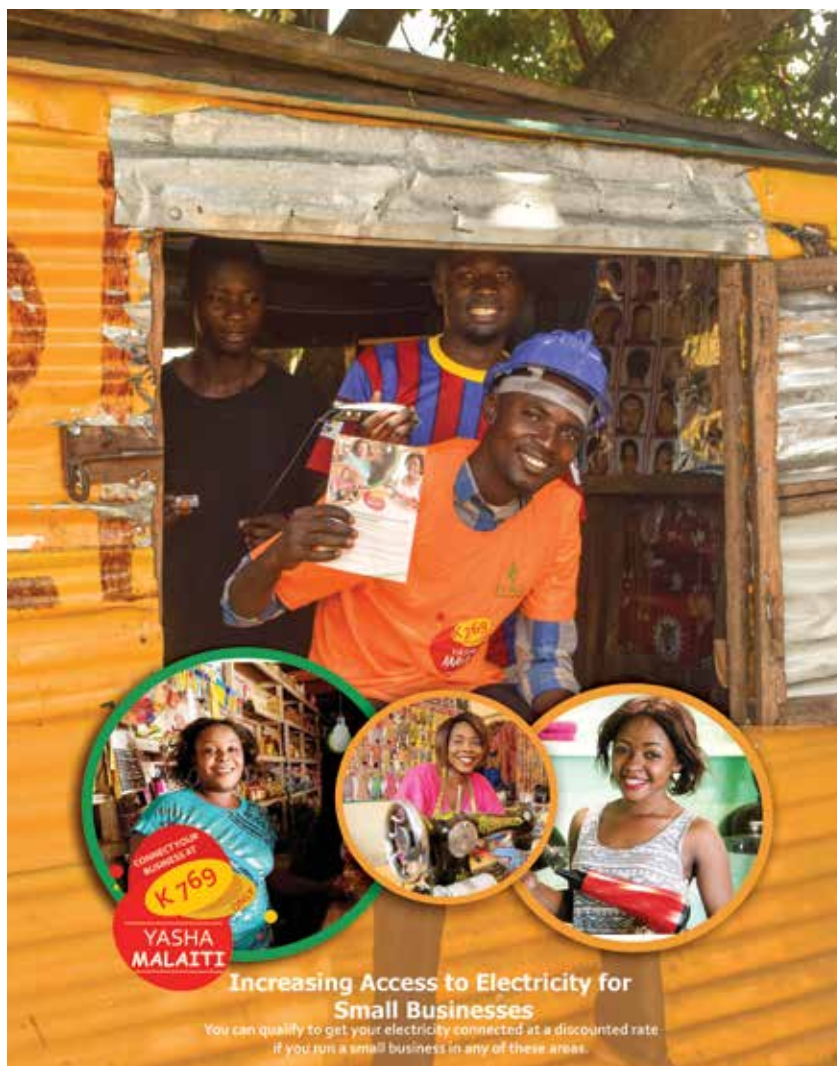
- Construction of Lusaka road substation in Livingstone
- Construction of Kanyama substation in Lusaka
- Upgrading of Fig Tree substation and construction of Chibombo substation in Chisamba area to improve quality of supply Chisamba area.
- Construction of 62km long 132kV line between Fig-tree and the new Chibombo substation.

All the works outlined above were completed by the end of the period under review

### Grid Extension and Intensification

To carry out various works involving provision of new service connections, installation of 33, 11 and 0.4kV lines and associated transformers in the following areas;

- Chipulukusu and Kabushi townships in Ndola District, Copperbelt
- Makululu township in Kabwe District, Central Province
- Chelstone, Foxdale and Kabanana township in Lusaka Province



- Lukulu area in Mpika District, Northern Province
- Lukulu farm block and Ipusukilo mission, Northern Province
- Mukonchi farm block in Kabwe, Central Province
- New Kawama township in Kitwe, Copperbelt
- Mangango mission in Kaoma, Western Province
- Kanyama, Garden and Misisi integrated approach

All the works outlined above were completed by the end of the period under review.

### JICA DISTRIBUTION LINES PHASE II

### SCOPE

Approval of construction in 3 Provinces was granted on 29th June 2016 by JICA. The contracts were signed with the contractors to carry out the works in the month of November 2017 as follows:

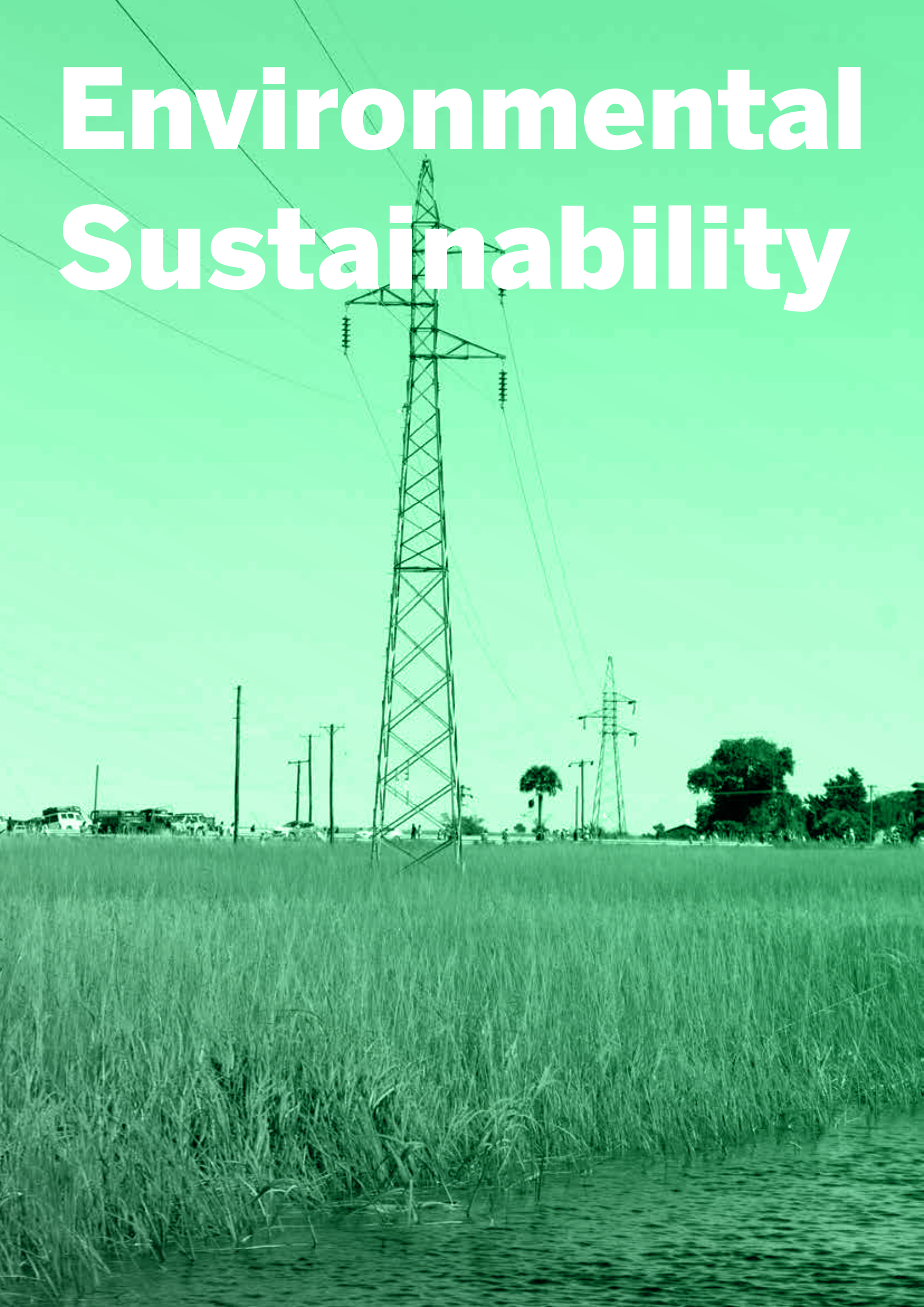
- Lot 1 awarded to Luck exports of India,
- Lot 2 and 5 awarded to CCC engineering of China
- Lot 3 and 4 awarded to Northlands equipment of Zambia

Survey works continued in the month of December for Lot 2 and Lot 3

Area	Package	Lines (km) 33kV or 11kV	Transformers
Mpika	Lot 1	99	17
Kasama	Lot 2	125	12
Mporokoso		75	12
Luwingu	Lot 3	6	
Mbereshi I & II		50	18
North Western Zambezi, Chavuma, Mufumbwe, Mumbezhi, Kabompo	Lot 4	129	13
Mwinilunga- Ikelenge	Lot 5	137	6



# Environmental Sustainability



# Environmental and Social Safe Guards - Transmission Component

The following Environmental and Social safeguard documents were approved by Aurecon, the Lenders Engineer on the Project, to conform to the European Investment Bank (EIB) Environmental and Social Standards, further to the approval by the World Bank (WB):

- The Resettlement and Compensation Action Plans (RCAPs) for the Leopards Hill – Avondale – Roma – Lusaka West – Coventry – Waterworks Substation RCAP;
- The Environmental Impact Statements (EISs) for brown field Transmission and Distribution components;
- The Project Environmental and Social Management Plan (ESMP) and Health and Safety Management Plan (HSMP).

## Rehabilitation of Existing 132kV Lusaka Ring

The Environmental Impact Statement (EIS) for this project was approved in 2013 By ZEMA. The World Bank also approved the Environmental and Social Management Plan (ESMP) and had since been disclosed on the ZESCO Website.

ZEMA was further engaged seeking guidance regarding the level of environmental assessment on the project activities that were not assessed and /or changed in scope in the ESIA studies for transmission and distribution components previously conducted. The following guidance was provided:

- An EIS had been prepared and submitted for the greenfield Waterworks – Chawama – Chilanga – Lusaka West 132kV line.
- ZESCO was still waiting for feedback from ZEMA on one Environmental Project Brief (EPB) prepared and submitted for the upgrade from to 132kV of the following lines: UNZA – Roma 33kV line; Coventry – Chawama 33kV line; and Avondale – Ibex 11kV line.

The consolidated final RCAP for the Leopards Hill – Avondale – Roma – Lusaka West – Coventry – Waterworks Substation was submitted in November, 2017. ZESCO was still waiting for feedback from ZEMA on the submission.

## Resettlement and Compensation Action Plan

### (RCAP) Activities:

#### Eastern Corridor: Leopards Hill – Roma – Lusaka West Substation

The total number of PAPs paid on the Leopards Hill – Roma segment still remained 38 with the compensation amount standing at Eleven million Kwacha. 204 PAPs on the Roma – Lusaka West Substation stretch were also paid Thirty Million Kwacha and most of them had since relocated to other areas.

#### Western Corridor: Lusaka West – Coventry – Water Works Substation

The Environmental Management Plan (EMP) and the Health and Safety Management Plan (HSMP) prepared by CEEC, the contractor at Waterworks substation, had been approved by ZESCO to facilitate commencement of works.

#### Greenfield: Waterworks – LSMFEZ - Chawama – Chilanga - Lusaka West Substation

Property owners on the Waterworks – Chawama stretch were engaged regarding land and structures to be affected by the Project. Property Valuation was undertaken for 17 PAPs of which 7 had formally consented to compensation entitlement. The proposed route of the line in this area runs parallel to the Tokyo Way leading to LSMFEZ, thus taking up a wayleave of 32 meters in property frontage. 3 PAPs agreed for their property to be valued and the valuation was done and was only pending negotiations. A further Seven Million Kwacha was paid to 8 PAPs.

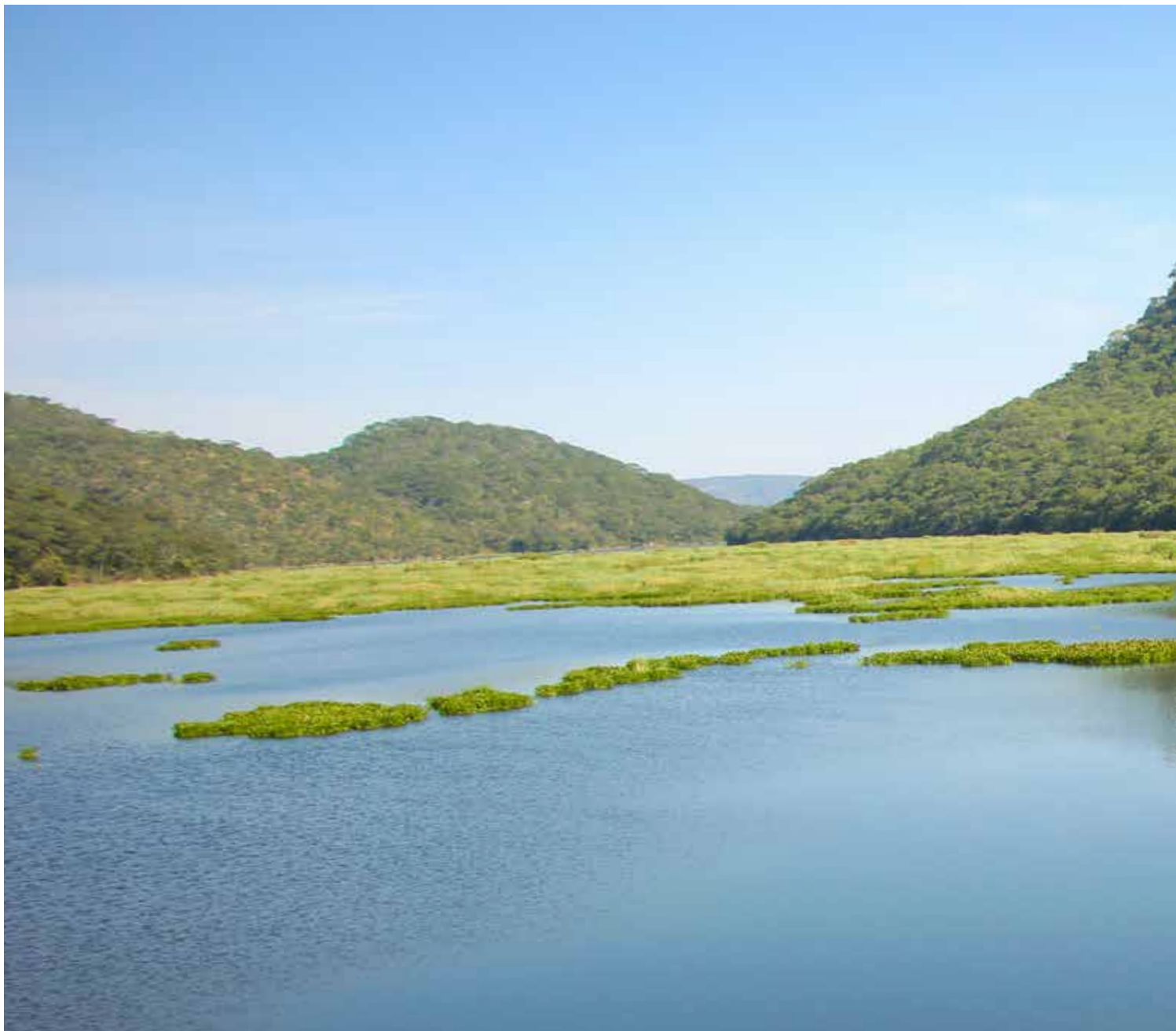
#### Chawama – Jimmy – Coventry 33/132kV Line Upgrade Substation

ZESCO met the owners of structures that shall be affected by the construction of the Proposed Jimmy Substation. Their concern was when ZESCO would relocate them considering the time that has passed. ZESCO responded that the reconnaissance and social economic surveys need to be concluded prior to relocation. Scoping Meeting will be held to facilitate determination of compensation entitlement.

#### 33/132kV Line Upgrade Chawama –Coventry

ZESCO is still waiting for feedback from ZEMA, World Bank and EIB on the first draft EPB that was submission. The RCAP data collection (detailed survey) and scoping meeting is yet to be done. The socio-economic surveys and rapid asset survey-was suspended owing to the Industrial Break. The activity will continue in January, 2018.





## Hydrology

Cumulative rainfall performance during the year indicated normal to above normal rainfall especially in the North-Western, Copperbelt, & Central Provinces which are the main catchments for the Kafue River system. On the Zambezi however, normal to below normal rainfall was received in the upper basin, whereas normal to above normal rainfall was characteristic in the lower basin. This resulted in a significant reduction in the inflow water volume into the Kariba.

Itezhi Tezhi Dam (ITT) reached a maximum of 1031 metres above sea level (m. ASL) on 29 May, 2017. At the Kariba Dam, the maximum level attained during the year was 483.22m Kariba datum on 24 June, 2017. On 31 December 2017, the water level in Lake Kariba was 480.73m Kariba Datum. The minimum water level is 475.50 m. The previous year's water level was 477.65 m Kariba Datum. There was no water

released through the spillway gates during 2017.

The water levels at Itezhi-Tezhi and Kafue Gorge dams on 31 December 2017 were 1023.47m. ASL and 975.79m. ASL respectively compared to the previous year's corresponding levels of 1013.69 m and 975.33m. ASL respectively. The design maximum and minimum water levels for Itezhi-tezhi are 1030.50 m. Asl and 1006.00 m. ASL respectively, while for Kafue Gorge are 977.00 m. asl and 972.30 m. ASL respectively. At the Kafue Gorge dam, 2,585 Mm3 of water was released through the spillway gates.

In general, there was sufficient water to generate both firm and secondary power at Kafue Gorge Power Station. At the Kariba North Bank power stations, water utilization was within the annual allocation from the Zambezi River Authority closing at 93.1% of the allocation. Above normal power generation was conducted at

Victoria Falls power station. Adequate water was available for power generation at the Small Hydro power stations during the year.

The end of year water levels at Itezhi-tezhi was within the desired region, whereas that at Kariba was still lower than the desired level but had improved significantly compared to the end of year level in 2016.

The rainfall forecast for the 2017/18 rainy season indicates a likelihood of normal to above normal rainfall throughout the country for the period Jan to Mar 2018. Correspondingly, the Zambezi River Authority increased the annual allocation from 15 BN m3 in 2017, to 17 BN m3 for 2018. It is therefore envisaged that the ZESCO stations will be able to generate both firm and secondary power. The target average generation have been pegged at 450 MW at Kariba and 800 MW at Kafue Gorge.



## Biodiversity

Following the completion of the project to rehabilitate and uprate at Musonda Falls Power Station, the company embarked on the fish restocking exercise in the main reservoir dam in Chisenta area. This was in compliance with Zambia Environmental Management Agency (ZEMA), to compensate for the disturbances caused to the nature by the project.

The company embarked on tree planting exercise along the Zambezi River Basin catchment area, as part of the Corporate Social Responsibility aimed at protecting the forest. The company has targeted to plant a minimum of one hectare per annum with 10,000 trees to mitigate the effects of deforestation which has adverse effects on the hydrological system.

Pictures of tree planting and fish restocking exercise



R - L - Director Strategy and Corporate Services - Changala Nswana and Human Resources Manager – S&CS Beauty M Phiri planting a tree during a tree planting exercise in Ikelenge.



# Financial Statements

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# Report of the Directors

The Directors present their report and audited financial statements for the year ended 31 December 2017.

## Principal Activity

The Company's principal activities are the generation, transmission, distribution and supply of electricity.

## Registered Office and Principal Place of Business

The address of the Company's registered office and principal place of business is:

Stand 6949, Great East Road

Lusaka

Revenue	7,424,850	8,237,828
Profit for the year	345,568	1,308,640
Total assets	58,136,557	30,022,298
Total equity	24,701,611	7,616,059
Total liabilities	33,434,946	22,406,239

## Revenue

The Company's revenue decreased by 10% from K8.2 billion in 2016 to K7.4 billion in 2017 mainly on account of the tariff reversal of the US cents 10.35/kWh implemented in 2016 on Mining Customers. The Company agreed an interim tariff which was applicable in 2017. However, there was an increase in the volume sales by 12% from 12,436 GWh in 2016 to 13,882 GWh in 2017. Further, the customer base grew by 8% from 831,476 in 2016 to 901,047 in the 2017 financial year under review.

## Loss for the year

The loss during the year is due to increase in the purchase of power from Independent Power Producers during the year. The average tariff of buying power from Independent Power Producers is higher than the average tariff ZESCO sells to its customers, resulting in erosion of the gross profit margin from 53% in 2016 to 38% in 2017.

## Total assets

The increase in assets is mainly due to additional investments in generation, transmission and distribution infrastructure during the year amounting to K3.9 billion.

## Total equity

There were no changes to the Company's equity.

## Total liabilities

The increase in liabilities is due to additional borrowings on loan facilities of K1.1 billion and

in payables of K3.2 billion.

## Dividends

The Directors do not recommend payment of a dividend in respect of the year ended 31 December 2017. The loss will be transferred from reserves.

## Directors

The Directors who held office during the year and to date of sign off of these financial statements were:

Dr. Mbita Chintundya  
Chitala

**Board  
Chairperson**

Mr. Victor M.  
Mundende

Brig General. Emeldah  
Chola

Mr. George Mpundu  
Kanja

Mr. Pythias Mulenga

Mr. Chibwe D. Mwelwa

Ms. Kavumbu  
Hakachima

*The above Directors were appointed on 17 July 2017.*

## Corporate Governance

The Board continued to be committed to high standards of corporate governance, which is fundamental to discharging their leadership responsibilities. The Board applies integrity, principles of good governance and accountability throughout its activities.

## Property, Plant and Equipment

The Company invested a total of K3.9 billion (2016: K3.7 billion) in property, plant and equipment during the year.

## Intangible Assets

During the year the Company did not acquire any software.

## Exports

During the year, the value of electricity exports by the Company were K729 million (2016: K598 million).

## Donations

The Company as part of Corporate Social Investment made donations during the year amounting to K3.4 million (2016: K3.4 million.)

## Research and Development

The Company's research and development activities during the year amounted to K6.1 million (2016: 4.8 million).

## Share Capital

The Company's authorised and issued share capital remained unchanged during the year. However, subsequent to the reporting date on 5 April 2018 authorised share capital was increased to K5 billion divided into 2.5 billion shares at K2 per share from K400,000.

## Employees

The total remuneration and other related staff costs paid to the employees was K1,525 million (2016: K1,214 million).



The Company's establishment is 7,000. The average number of employees during each month of the year was as follows:

January	6,762	6,818
February	6,753	6,828
March	6,759	6,831
April	6,753	6,819
May	6,748	6,820
June	6,786	6,829
July	6,778	6,819
August	6,769	6,824
September	6,764	6,814
October	6,784	6,810
November	6,784	6,800
December	6,772	6,791

In addition to the staff establishment, the Company does employ seasonal workers depending on when the need arises.

### Key developments during the year

- The generation of electricity at Kafue Gorge Power increased significantly by an average of 26%, while Kariba North Bank, Victoria Falls and Small Hydro Power Stations and Diesel Generation Stations recorded reduced generation by an average of 9%, resulting in an average increase in generation by 12% to 10,854 GWh from 9,683 GWh in 2016. The increase in generation was attributed to significant increase in water levels at Itzhi Tezhi Dam, which provides for Kafue Gorge Power Station. Subsequently, the cost of importing emergency power reduced by 49%, to K1.4 million per day from K2.7 million in 2016. The Government continues to subsidise the cost of emergency power imports, having disbursed K368.5 million (2016: K1.0 billion) during the year, towards the cost of emergency power.
- During the year, the Company signed the senior debt financing facility agreement with China Exim Bank and International Commercial Bank of China (ICBC) amounting to US\$1.5 billion to finance the construction of Kafue Gorge Lower Hydro Power Station. The contractor Sinohydro Corporation Limited has made about 24% progress in the construction of the 750 MW Kafue Gorge Lower Hydro Power Station and it is expected to be completed by 2020. In addition, the connection of North Western Province to the National Grid was completed following the commission of 132 KV transmission line. This resulted in decommission of the costly Diesel Generation machines. The completion of the transmission lines positions the Company to access the market for new mining projects in the Region.
- During the year the Company embarked on the Asset Identification, Verification and Revaluation project of Core and Non-Core Assets. The objective of the project was to be in compliance with IAS 16 and also to form key input into the Cost of Service Study which will be used as a base for fixing future tariffs. The Revalued Assets at the close of the 2017 financial year was US\$4 billion.
- The Energy Regulation Board awarded ZESCO an average tariff increase of 75% to domestic customers, which was effected in parts with 50% effected in May 2017 and 25% in September 2017. Further, during the year the Company renegotiated its tariff with mining customers, which resulted in a reversal of US cents 10.35/kWh in an agreement of a weighted average interim tariff of US\$8.40/kWh, upto the end of the year.
- The Special Purpose Vehicle - Batoka Hydro Power Corporation Limited was formed to oversee the construction of a 1,200 MW Hydro Power Station. The Project is a joint commission between Zambia and Zimbabwe with a total expected capacity of 2,400 MW, split 1,200 MW on each side. The dam will be constructed by Zambezi River Authority. The Zambezi River Authority engaged a consultant to update the feasibility studies during the year.
- During the year, Fibrecom Limited was formed to run the Fibrecom business as a subsidiary of ZESCO Limited. The Company will focus on growing the commercial aspects of the

Fibrecom which has excess capacity to lease out. The Company is also implementing Metropolitan project which is expected to be completed by 31 October 2018. The Project upon completion will enable Fibrecom Limited to apply for a service license from ZICTA to provide internet services to retail customers.

### Health And Safety of Employees

The Company has a Safety, Health, Environment and Quality system called SHEQ. The SHEQ programme conforms to international standards/specifications such as ISO 9001, ISO 14001, OHASA 18001 and ISO27001 by complying with the objectives and targets of: Minimizing risk and eliminating harm to employees, customers and the environment;

- Ensuring elimination of waste;
- Minimizing risks and guarantee confidentiality, integrity and availability to our Information Communications and Technology ICT (systems);
- Ensuring reliable and safe supply of electricity that sustains business continuity;
- Identifying, developing and maintaining the required resources to deliver reliable and high quality power supply of our customers safely as per their identified needs; and
- Effectively communicating with all stakeholders on all matters relating to SHEQ and service provision.

It is the duty of each employee and contractors to comply with the SHEQ policy to enable the Company achieve its strategic objectives and establish and entrench a SHEQ driven culture within the Company.

### Auditors

Messrs Deloitte & Touche's term of office comes to end at the next Annual General Meeting. A resolution proposing their re-appointment as auditors and authorising the Directors to fix their remuneration will be put to the Annual General Meeting.

By order of the Board.



Mr. McRobby Chiwale

**COMPANY SECRETARY**

**Lusaka**

# Statement of Responsibility for Annual Financial Statements

Section 164 (6) of the Companies Act, 1994 (as amended) requires the Directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Company and the profit or loss for that period.

The Directors are responsible for the maintenance of adequate accounting records and the preparation and integrity of the financial statements and related information. The independent external auditors, Messrs Deloitte & Touche, have audited the financial statements and their report is shown on pages 5 to 8.

The Directors are also responsible for the systems of internal control. These are designed to provide reasonable, but not absolute, assurance as to the reliability of the financial statements, and to adequately safeguard, verify and maintain accountability for assets, and to prevent and detect material misstatements. The systems are implemented and monitored by suitably trained personnel with an appropriate segregation of authority and duties. Nothing has come to the attention of the Directors to indicate that any material breakdown in the functioning of these controls, procedures and systems has occurred during the year under review.

The financial statements are prepared on a going concern basis except as set out under Note 3.2 to the financial statements. Nothing has come to the attention of the Directors to indicate that the Company will not remain a going concern in the foreseeable future.

In the opinion of the Directors:

- the statement of profit or loss and other comprehensive income is drawn up so as to give a true and fair view of the profit of the Company for the year ended 31 December 2017;
- the statement of financial position is drawn up so as to give a true and fair view of the state of affairs of the Company as at 31 December 2017;
- there are reasonable grounds to believe that the Company will be able to pay its debts as and when they fall due; and
- the financial statements have been prepared in accordance with International Financial Reporting Standards and in the manner required by the Companies Act, 1994 (as amended).

Signed on behalf of the Board by:



CHAIRMAN

MANAGING DIRECTOR

# Independent Auditor's Report



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To the members of

ZESCO Limited

## Report on the Audit of the Financial Statements

### Opinion

We have audited the financial statements of ZESCO Limited, set out on Pages 9 to 52, which comprise the statement of financial position as at 31 December 2017, the statement of profit or loss and other comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, and the notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements give a true and fair view of the financial position of ZESCO Limited as at 31 December 2017, and of its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards, and in the manner required by the Companies Act, 1994 (as amended).

### Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (Part A and B), together with other ethical requirements that are relevant to our audit of the financial statements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters	How our audit addressed the key audit matter
<b>Impairment of trade receivables</b> <p>Trade receivables balance at year end was K4,841,523,000, the provision for doubtful debts at the close of the year was K3,524,635,000 as shown in note 18 to the financial statements</p> <p>Management raises provisions based on judgements as to whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows.</p> <p>Accordingly, an allowance for impairment is made where there is an identified loss event or condition which, based on previous experience, is evidence of a reduction in the recoverability of the cash flows. Typically, management provides for:</p> <ul style="list-style-type: none"><li>- amounts over 90 days owing from domestic debtors;</li><li>- disputed amounts;</li><li>- amounts for which there are no subsequent receipts; and</li><li>- any other observable data indicating possible non-recovery.</li></ul> <p>We considered impairment against trade receivables as a key audit matter because of the following:</p> <ul style="list-style-type: none"><li>• The determination of impairment uses significant judgements coupled with the fact that compliance with International Accounting Standard 39 Financial Instruments Measurements and Recognition requirements is onerous; and</li><li>• Economic fundamentals in Zambia together with other factors may impact on the ability of customers to pay.</li></ul>	<p>We performed the following audit procedures:</p> <ul style="list-style-type: none"><li>• Testing of inputs into the calculation of the doubtful debts, including the ageing, validity and completeness of the amounts included in the calculation for doubtful debts;</li><li>• Assessing the recoverability taking into account the type of debtors being mining, exports, telecoms, domestic receivables and historical payment terms; and</li><li>• Performing a retrospective review of the provision previously raised against the subsequent write-offs.</li></ul> <p>• Testing the collection of subsequent receipts received after year-end.</p> <p>• Performing an independent assessment of the provision taking into account the factors above.</p> <p>We found the determined provision for doubtful debts to be acceptable. Based on the testing undertaken, the presentation and disclosures in respect of the trade receivables balance are consistent with the requirements of IFRS.</p>



## Other Information

The Directors are responsible for the other information. The other information comprises the Directors' Report, as required by the Companies Act, 1994 (as amended), which we obtained prior to the date of this auditor's report, and the five year financial record and detailed operating statement shown in the appendices. The other information does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance or conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained on the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## Responsibilities of the Directors for the Financial Statements

The Directors are responsible for the preparation and fair presentation of the financial statements which give a true and fair view in accordance with International Financial Reporting Standards and the requirements of the Companies Act, 1994 (as amended), and for such internal control as the Directors determine is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

## Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of

internal control.

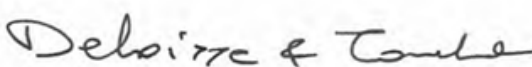
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the Company audit. We remain solely responsible for our audit opinion.

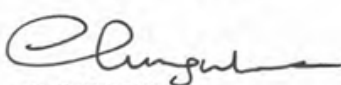
We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

## Report on other legal requirements

Section 173 (3) of the Companies Act, 1994 (as amended) requires that in carrying out our audit, we consider and report to you on the following matter: we confirm that, in our opinion, the accounting and other records and registers have been properly kept in accordance with the Act.

  
DELOITTE & TOUCHE

  
C. CHUNGU  
PARTNER (AUD/F000292)

DATE: 16 JUNE 2017

# Statement of Profit or Loss and other Comprehensive Income

For the year ended 31 December 2017

REVENUE	5	7,424,850	8,237,828
Cost of sales	6	(4,569,026)	(3,887,866)
GROSS PROFIT		2,855,824	4,349,962
Other operating income	7	461,901	279,644
Other gains and losses	8	(63,472)	313,588
Marketing expenses		(31,919)	(19,400)
Administration expenses		(2,307,243)	(1,681,039)
Other expenses	9	(786,548)	(3,054,893)
Finance costs	10	(398,903)	(324,433)
LOSS BEFORE TAX	11	(270,359)	(136,571)
Income tax credit	12	615,927	1,445,211
PROFIT FOR THE YEAR		345,568	1,308,640
OTHER COMPREHENSIVE INCOME			
Items that will not be reclassified subsequently to profit or loss:			
Gain on revaluation of property		25,716,999	-
Income tax relating to items that will not be classified subsequently to profit or loss		(8,977,015)	-
Other comprehensive income for the year, net of income tax		16,739,984	-
PROFIT AND OTHER COMPREHENSIVE INCOME FOR THE YEAR		17,085,552	1,308,640

# Statement of Financial Position

at 31 December 2017

	Notes	2017 K'000	2016 K'000
<b>ASSETS</b>			
Non current assets			
Property, plant and equipment	14	46,043,150	17,169,952
Intangible assets	15	68,740	86,085
Investments	16	1,598,697	1,538,032
Deferred tax asset	13	-	2,329,431
Loan due from a related party	21	2,797,701	2,769,565
Total non current assets		50,508,288	23,893,065
Current assets			
Inventories	17	1,002,763	964,979
Trade and other receivables	18	2,427,547	1,769,777
Amounts due from related parties	21	2,366,232	1,605,959
Bank and cash balances		1,831,727	1,788,518
Total current assets		7,628,269	6,129,233
<b>TOTAL ASSETS</b>		<b>58,136,557</b>	<b>30,022,298</b>
<b>EQUITY AND RESERVES</b>			
Capital and reserves			
Issued capital	19	194	194
Amount pending allotment of shares	20	2,824,924	2,824,924
Revaluation reserve		16,976,452	304,851
Retained earnings		4,900,041	4,486,090
Total equity		24,701,611	7,616,059
Non current liabilities			
Borrowings	23	11,291,554	11,150,318
Retirement benefit obligation	24	2,063,280	1,937,610
Capital grants and contributions	25	2,308,755	1,312,188
Deferred tax liability	13	5,984,797	-
Total non current liabilities		21,648,386	14,400,116
Current liabilities			
Trade and other payables	26	7,338,396	4,091,187
Amounts due to related parties	21	1,383,477	738,540
Borrowings	23	1,508,901	1,442,126
Retirement benefit obligation	24	125,485	94,912
Capital grants and contributions	25	109,863	217,351
Current tax liabilities	12	1,225,614	1,351,614
Bank overdraft	27	94,824	70,393
Total current liabilities		11,786,560	8,006,123
Total liabilities		33,434,946	22,406,239
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>58,136,557</b>	<b>30,022,298</b>

The responsibilities of the Company's Directors with regard to the preparation of the financial statements are set out on page 4. The financial statements on pages 9 to 52 were approved by the Board of Directors and authorised for issue on April 2018 and were signed on its behalf by:



**Chairman**

Dr. Mbita Chitala



**Managing Director**

Mr. Victor M Mundende



# Statement of Changes in Equity

for the year ended 31 December 2017

	Share capital K'000	Amount Pending Allotment of Shares K'000	Properties Revaluation reserve K'000	Retained earnings K'000	Total K'000
Balance at 1 January 2016	194	2,824,924	349,300	3,109,067	6,283,485
Total comprehensive income for year	-	-	-	1,308,640	1,308,640
Deferred tax on revaluation	-	-	23,934	-	23,934
Amortisation of revaluation Reserve	-	-	(68,383)	68,383	-
Balance at 31 December 2016	194	2,824,924	304,851	4,486,090	7,616,059
Total comprehensive income for year	-	-	-	345,568	345,568
Other comprehensive income for the year, net of income tax			16,739,984	-	16,739,984
Amortisation of revaluation Reserve	-	-	(68,383)	68,383	-
<b>Balance at 31 December 2017</b>	<b>194</b>	<b>2,824,924</b>	<b>16,976,452</b>	<b>4,900,041</b>	<b>24,701,611</b>

# Statement of Cash Flows

for the year ended 31 December 2017

	NOTES	2017 K'000	2016 K'000
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Profit after tax		345,568	1,308,640
Adjustments for:			
- Income tax credit	12	(615,927)	(1,445,211)
- Interest income	7	(5,872)	(6,371)
- Finance costs recognised in profit and loss	10	398,903	324,433
- Net exchange losses recognised on borrowings	23	(459)	(1,301,448)
- Gain on disposal of property, plant and equipment		(5,162)	(2,598)
- Depreciation of non current assets	14	773,139	457,260
- Amortisation of intangible assets	15	13,013	9,058
- Elimination of depreciation on revaluation	15	(78,365)	-
- Loss on revaluation of intangible assets	15	74,708	-
- Amortisation of capital grants and contributions	25	(102,387)	(90,756)
- (Reversal) impairment loss recognised on trade receivables	18	(1,531,523)	2,428,276
		(734,364)	1,681,283
Movements in working capital:			
Increase in inventory		(37,784)	(356,974)
Decrease (increase) in trade and other receivables		873,753	(2,194,804)
Increase in amounts due from related parties		(760,273)	(945,964)
Increase in trade and other payables		3,247,209	2,637,002
Increase in deferred liabilities		156,243	47,900
Increase in amounts due to related parties		644,937	496,099
(Increase) decrease in borrowings due from related party		(28,136)	320,546
Cash generated from operations		3,361,585	1,685,088
Interest paid		(398,903)	(324,433)
Income tax paid	12	(172,860)	(361)
Net cash generated by operating activities		2,789,822	1,360,294
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Proceeds from disposal of property, plant and equipment		6,266	2,845
Payments for property, plant and equipment	14	(3,922,453)	(3,676,743)
Payment to acquire investment	16	(60,665)	(1,078,373)
Interest received		5,872	6,371
Net cash used in investing activities		(3,970,980)	(4,745,900)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Repayment of borrowings	23	(925,300)	(1,267,682)
Proceeds from capital grants and contributions	25	991,466	177,881
Proceeds from borrowings	23	1,133,770	4,104,239
Net cash generated from financing activities		1,199,936	3,014,438
Net increase (decrease) in cash and cash equivalents		18,778	(371,168)
Cash and cash equivalents at the beginning of the year		1,718,125	2,089,293
Cash and cash equivalents at the end of the year		1,736,903	1,718,125
<b>COMPRISING OF:</b>			
Bank and cash balances		1,798,509	1,755,636
Short term deposits		33,218	32,882
		1,831,727	1,788,518
Bank overdraft	27	(94,824)	(70,393)
		1,736,903	1,718,125

# Notes to the Financial Statements

for the year ended 31 December 2017

## 1. General Information

ZESCO Limited (the "Company") is a limited Company incorporated and domiciled in Zambia. The address of its registered office and principal place of business is shown in the report of the Directors on page 1. The principal activity of the Company continued to be the generation, transmission, distribution and supply of electricity locally and for export in the region.

## 2. Application of new and revised international financial reporting standards (IFRSs)

### 2.1 Amendments to IFRSs that are mandatorily effective for the current year

In the current year, the Company has applied a number of amendments to IFRSs issued by the International Accounting Standards Board (IASB) that are mandatorily effective for an accounting period that begins on or after 1 January 2017.

#### Amendments to IAS 7 Disclosure Initiative

The Company has applied these amendments in the current year. The amendments require an entity to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both cash and non-cash changes.

The Company's liabilities arising from financing activities consist of borrowings and certain other financial liabilities such as finance leases. A reconciliation between the opening and closing balances of these items is provided in note 26. Consistent with the transition provisions of the amendments, the Company has not disclosed comparative information for the prior period. Apart from the additional disclosure in note 26, the application of these amendments has had no impact on the Company's financial statements.

#### Amendments to IAS 12 Recognition of Deferred Tax Assets for Unrealised Losses

The Company has applied these amendments in the current year. The amendments clarify how an entity should evaluate whether there will be sufficient future taxable profits against which it can utilise a deductible temporary difference.

The application of these amendments has had no impact on the financial statements as the Company already assesses the sufficiency of future taxable profits in a way that is consistent with these amendments.

#### Annual Improvements to IFRSs 2014-2016 Cycle

The Company has applied the amendments to IFRS 12 included in the Annual Improvements to IFRSs 2014-2016 Cycle in the current year.

IFRS 12 states that an entity need not provide summarised financial information for interests in subsidiaries, associates or joint ventures that are classified (or included in a disposal group that is classified) as held for sale. The amendments clarify that this is the only concession from the disclosure requirements of IFRS 12 for such interests.

The application of these amendments has had no effect on the Company's financial statements.

### 2.2 New and revised IFRSs in issue but not yet effective

The Company has not applied the following new and revised IFRSs that have been issued but are not yet effective:

IFRS 9	Financial Instruments <sup>1</sup>
IFRS 15	Revenue from Contracts with Customers (and the related Clarifications) <sup>1</sup>
IFRS 16	Leases <sup>2</sup>
Amendments to IFRS 2	Classification and Measurement of Share-based Payment Transactions <sup>1</sup>
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture <sup>3</sup>
Amendments to IAS 40	Transfers of Investment Property <sup>1</sup>
Amendments to IFRSs	Annual Improvements to IFRS Standards 2014-2016 Cycle <sup>1</sup>
IFRIC 22	Foreign Currency Transactions and Advance Consideration <sup>1</sup>

<sup>1</sup> Effective for annual periods beginning on or after 1 January 2018, with earlier application permitted.

<sup>2</sup> Effective for annual periods beginning on or after 1 January 2019, with earlier application permitted.

3 Effective for annual periods beginning on or after a date to be determined.

## IFRS 9 Financial Instruments

IFRS 9 issued in November 2009 introduced new requirements for the classification and measurement of financial assets. IFRS 9 was subsequently amended in October 2010 to include requirements for the classification and measurement of financial liabilities and for derecognition, and in November 2013 to include the new requirements for general hedge accounting. Another revised version of IFRS 9 was issued in July 2014 mainly to include a) impairment requirements for financial assets and b) limited amendments to the classification and measurement requirements by introducing a 'fair value through other comprehensive income' (FVTOCI) measurement category for certain simple debt instruments.

### Key requirements of IFRS 9:

- all recognised financial assets that are within the scope of IFRS 9 are required to be subsequently measured at amortised cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are generally measured at FVTOCI. All other debt investments and equity investments are measured at their fair value at the end of subsequent accounting periods. In addition, under IFRS 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading nor contingent consideration recognised by an acquirer in a business combination) in other comprehensive income, with only dividend income generally recognised in profit or loss.
- with regard to the measurement of financial liabilities designated as at fair value through profit or loss, IFRS 9 requires that the amount of change in the fair value of a financial liability that is attributable to changes in the credit risk of that liability is presented in other comprehensive income, unless the recognition of such changes in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. Changes in fair value attributable to a financial liability's credit risk are not subsequently reclassified to profit or loss. Under IAS 39, the entire amount of the change in the fair value of the financial liability designated as fair value through profit or loss is presented in profit or loss.
- in relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model, as opposed to an incurred credit loss model under IAS 39. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.
- the new general hedge accounting requirements retain the three types of hedge accounting mechanisms currently available in IAS 39. Under IFRS 9, greater flexibility has been introduced to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify for hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting. In addition, the effectiveness test has been overhauled and replaced with the principle of an 'economic relationship'. Retrospective assessment of hedge effectiveness is also no longer required. Enhanced disclosure requirements about an entity's risk management activities have also been introduced.

The directors of the company are still in the process of assessing the impact of this standard on the operations of the Company. It is expected that this standard will not have a material impact on how the company recognises its provisions for doubtful debts and how it classifies its financial assets and financial liabilities which will have to be in line with the business model.

### IFRS 15 Revenue from Contracts with Customers

IFRS 15 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. IFRS 15 will supersede the current revenue recognition guidance including IAS 18 Revenue, IAS 11 Construction Contracts and the related Interpretations when it becomes effective.

The core principle of IFRS 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the Standard introduces a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Under IFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e. when 'control' of the goods or services underlying the particular performance obligation is transferred to the customer.

Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Furthermore, extensive disclosures are required by IFRS 15.

In April 2016, the IASB issued Clarifications to IFRS 15 in relation to the identification of performance obligations, principal versus agent considerations, as well as licensing application guidance.

The Company recognises revenue from the following major sources:

- Mining
- Residential
- Industrial and agricultural
- Exports
- Commercial (retail outlets)

The Company plans to adopt the new standard on the required effective date using the full retrospective method.



The Directors are still in the process of the assessing the impact of this standard on the operations of the company. It is anticipated that the implementation of this standard may not have a material impact on the financial statements of the company.

## **IFRS 16 Leases**

IFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. IFRS 16 will supersede the current lease guidance including IAS 17 Leases and the related interpretations when it becomes effective.

IFRS 16 distinguishes leases and service contracts on the basis of whether an identified asset is controlled by a customer. Distinctions of operating leases (off balance sheet) and finance leases (on balance sheet) are removed for lessee accounting, and is replaced by a model where a right-of-use asset and a corresponding liability have to be recognised for all leases by lessees (i.e. all on balance sheet) except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others. Furthermore, the classification of cash flows will also be affected as operating lease payments under IAS 17 are presented as operating cash flows; whereas under the IFRS 16 model, the lease payments will be split into a principal and an interest portion which will be presented as financing and operating cash flows respectively.

In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

### **Furthermore, extensive disclosures are required by IFRS 16.**

IAS 17 does not require the recognition of any right-of-use asset or liability for future payments for these leases. A preliminary assessment indicates that these arrangements will meet the definition of a lease under IFRS 16, and hence the Company will recognise a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for low value or short-term leases upon the application of IFRS 16. Directors of the company are currently assessing its impact and do not anticipate significant impact on the amounts recognised in the Company's financial statements.

In contrast, for finance leases where the Company is a lessee, the Company has already recognised an asset and a related finance lease liability for the lease arrangement.

Further in cases where the Company is a lessor (for both operating and finance leases), the application of this standard is not applicable and the directors of the Company do not anticipate that the application of IFRS 16 will have an impact on the amounts recognised in the Company financial statements as the company is not a lesser.

## **Amendments to IFRS 2 Classification and Measurement of Share-based Payment Transactions**

The amendments clarify the following:

1. In estimating the fair value of a cash-settled share-based payment, the accounting for the effects of vesting and non-vesting conditions should follow the same approach as for equity-settled share-based payments.
2. Where tax law or regulation requires an entity to withhold a specified number of equity instruments equal to the monetary value of the employee's tax obligation to meet the employee's tax liability which is then remitted to the tax authority, i.e. the share-based payment arrangement has a 'net settlement feature', such an arrangement should be classified as equity-settled in its entirety, provided that the share-based payment would have been classified as equity-settled had it not included the net settlement feature.
3. A modification of a share-based payment that changes the transaction from cash-settled to equity-settled should be accounted for as follows:
  - i) the original liability is derecognised;
  - ii) the equity-settled share-based payment is recognised at the modification date fair value of the equity instrument granted to the extent that services have been rendered up to the modification date; and
  - iii) any difference between the carrying amount of the liability at the modification date and the amount recognised in equity should be recognised in profit or loss immediately.

The amendments are effective for annual reporting periods beginning on or after 1 January 2018 with earlier application permitted. Specific transition provisions apply. The directors of the Company do not anticipate that the application of the amendments in the future will have a significant impact on the Company's financial statements as the Company does not have any cash-settled share-based payment arrangements or any withholding tax arrangements with tax authorities in relation to share-based payments.

## **Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture**

The amendments to IFRS 10 and IAS 28 deal with situations where there is a sale or contribution of assets between an investor and its associate or joint venture. Specifically, the amendments state that gains or losses resulting from the loss of control of a subsidiary that does not contain a business in a transaction with an associate or a joint venture that is accounted for using the equity method, are recognised in the parent's profit or loss only to the extent of the unrelated investors' interests in that associate or joint venture. Similarly, gains and losses resulting from the remeasurement of investments retained in any former subsidiary (that has become an associate or a joint venture that is accounted for using the equity method) to fair value are recognised in the former parent's profit or loss only to the extent of the unrelated investors' interests in the new associate or joint venture.

The effective date of the amendments has yet to be set by the IASB; however, earlier application of the amendments is permitted. The directors of the Company anticipate that the application of these amendments may not have an impact on the company's consolidated financial statements in future periods should such transactions arise.

### Amendments to IAS 40 Transfers of Investment Property

The amendments clarify that a transfer to, or from, investment property necessitates an assessment of whether a property meets, or has ceased to meet, the definition of investment property, supported by observable evidence that a change in use has occurred. The amendments further clarify that situations other than the ones listed in IAS 40 may evidence a change in use, and that a change in use is possible for properties under construction (i.e. a change in use is not limited to completed properties).

The amendments are effective for annual periods beginning on or after 1 January 2018 with earlier application permitted. Entities can apply the amendments either retrospectively (if this is possible without the use of hindsight) or prospectively. Specific transition provisions apply.

The Directors are still in the process of assessing the impact of this standard on the operations of the company. It is anticipated that the implementation of this standard may not have a material impact on the financial statements of the company.

### Annual Improvements to IFRSs 2014 – 2016 Cycle

The Annual Improvements include amendments to IFRS 1 and IAS 28 which are not yet mandatorily effective for the Company. The package also includes amendments to IFRS 12 which is mandatorily effective for the Company in the current year.

The amendments to IAS 28 clarify that the option for a venture capital organisation and other similar entities to measure investments in associates and joint ventures at FVTPL is available separately for each associate or joint venture, and that election should be made at initial recognition of the associate or joint venture. In respect of the option for an entity that is not an investment entity (IE) to retain the fair value measurement applied by its associates and joint ventures that are IEs when applying the equity method, the amendments make a similar clarification that this choice is available for each IE associate or IE joint venture. The amendments apply retrospectively with earlier application permitted.

Both the amendments to IFRS 1 and IAS 28 are effective for annual periods beginning on or after 1 January 2018. The directors of the Company do not anticipate that the application of the amendments in the future will have any impact on the financial statements as the Company is neither a first-time adopter of IFRS nor a venture capital organisation. Furthermore, the Company does not have any associate or joint venture that is an investment entity.

### IFRIC 22 Foreign Currency Transactions and Advance Consideration

IFRIC 22 addresses how to determine the 'date of transaction' for the purpose of determining the exchange rate to use on initial recognition of an asset, expense or income, when consideration for that item has been paid or received in advance in a foreign currency which resulted in the recognition of a non-monetary asset or non-monetary liability (e.g. a non-refundable deposit or deferred revenue).

The Interpretation specifies that the date of transaction is the date on which the entity initially recognises the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the Interpretation requires an entity to determine the date of transaction for each payment or receipt of advance consideration.

The Interpretation is effective for annual periods beginning on or after 1 January 2018 with earlier application permitted. Entities can apply the Interpretation either retrospectively or prospectively. Specific transition provisions apply to prospective application.

The directors of the Company do not anticipate that the application of the amendments in the future will have an impact on the Company financial statements. This is because the Company already accounts for transactions involving the payment or receipt of advance consideration in a foreign currency in a way that is consistent with the amendments.

## 3. Significant Accounting Policies

### 3.1. Statement of compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards.

### 3.2 Basis of preparation

The financial statements have been prepared on the historical cost basis except for the revaluation of certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Company takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of IFRS 2, leasing transactions that are within the scope of IAS 17, and measurements that have some similarities to fair value but are not fair value, such as realisable value in IAS 2 or value in use in IAS 36.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

Items included in the financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Zambian Kwacha (K).

As at 31 December 2017, the Company's current liabilities exceeded their current assets by K4,158,291,000 (2016: K1,876,890,000). The financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

The ability of the Company to continue as a going concern is dependent on a number of factors. The most significant of these is that the directors continue to procure funding for the ongoing operations of the Company from the holding company. The Government, through Industrial Development Corporation Zambia Limited, has pledged its continued financial support for the forthcoming financial year, ending 31 December 2018 and confirmed its continued undertaking and ability to provide further financial support to the Company for the foreseeable future, should this be required, enabling it to pay its debts as and when they fall due.

There is a material uncertainty related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern and, therefore, that it may be unable to realise its assets and discharge its liabilities in the normal course of business.

On the basis of cash flow information prepared by the Directors and after consultation with its shareholders, bankers and lessor, the Directors consider that the Company will continue to operate for the foreseeable future within the available financial resources. Accordingly, the directors are of the opinion that the preparation of these financial statements on the going concern basis is appropriate.

### 3.3 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale/provision of goods and services in the ordinary course of the company's activities. Revenue is shown net of value-added tax (VAT), excise duties, discounts and rebates.

The Company recognises revenue when the amount of revenue, and the associated costs incurred or to be incurred, can be reliably measured, it is probable that future economic benefits will flow to the company and when specific criteria have been met for each of the company's activities as described below. The amount of revenue is not considered to be reliably measurable until all contingencies relating to the sale have been resolved. The company bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

#### Sale of goods

Sale of goods is recognised when significant risks and rewards of ownership have passed and the collectability of the related receivable is reasonably assured. Electricity revenue is recognised when electricity is consumed by the user except in the case of prepaid electricity which is recognised when purchased by the customer.

#### Sale of services

Sale of services is recognised in the reporting period in which the services are rendered, by reference to the stage of completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided.

### 3.4 Interest income

Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

### 3.5 Rental income

Rental income from operating leases is recognised on a straightline basis over the term of the relevant lease.

### 3.6 Fibre income

Fibre income is recognised on the accrual basis in accordance with the substance of the agreement. Connection fees are recognised on the date of activation of the service. Access charges are recognised in the period to which it relates.

### 3.7 Inventories

All Inventories are stated at the lower of cost and net realisable value. Cost is calculated on a weighted average basis and includes all expenditure incurred in bringing the inventories to their present location and condition. Net realisable value is the price at which inventory can be realised in the normal course of business and takes into account all directly related costs to be incurred in marketing, selling and distribution. Provision is made for obsolete, slow moving and defective inventories.

### 3.8 Foreign currencies

In preparing the financial statements of the entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items

denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences on monetary items are recognised in profit or loss in the period in which they arise except for exchange differences:

- on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings; and
- arising on foreign currency transactions are posted to the profit and loss in the period they arise; and

### 3.9 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation. All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

All other borrowing costs are recognised in profit or loss in the financial period in which they are incurred.

### 3.10 Capital grants and contributions

Capital grants are not recognised until there is reasonable assurance that the Company will comply with the conditions attached to them and that the grants will be received.

Capital grants are recognised in profit or loss on a systematic basis over the periods in which the Company recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognised as deferred revenue in the statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Capital contributions represent money received from electricity consumers towards the capital cost of connections. Capital contributions are deferred and credited to profit or loss in equal annual instalments over the expected useful lives of the related assets.

### 3.11 Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

#### (i) Current tax

The tax currently payable is based on taxable profit for the financial period. Taxable profit differs from profit as reported in profit or loss because of items of income or expense that are taxable or deductible in other financial periods and items that are never taxable or deductible. The Company's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

#### (ii) Deferred tax

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its current tax assets and liabilities on a net basis.

#### (iii) Current and deferred tax for the financial period

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in profit or loss or directly in equity respectively.

### 3.12 Property, plant and equipment

Property, plant and equipment are stated in the statement of financial position at their cost or revalued amounts, being the fair value at the date of revaluation, less any subsequent accumulated depreciation and subsequent impairment losses.

Depreciation is charged to write off the cost or revalued amounts of property, plant and equipment over their estimated useful lives, on a straight



line basis, over the following number of years:

Generation, Transmission and Distribution Systems:

Dams, tunnels, power houses and other civil structures 60 years

Generators, Turbines, Transformers and Towers 40 years

Transmission and distribution systems 25 - 50 years

Other Assets:

Buildings - Roads, Workshops, Offices and Houses 30-50 years

Furniture, Vehicles and IT 3 - 15 years

Capital work in progress is not depreciated.

Depreciation is recognised so as to write off the cost or revalued amounts of assets less their residual values over their useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Cost includes professional fees and, for qualifying assets, borrowing costs capitalised in accordance with the Company's accounting policy. Such properties are classified to the appropriate categories of property and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Management has estimated the residual values of the property, plant and equipment at 31 December 2017 to be insignificant and for purpose of the financial statements have been assigned a nil value.

Repairs and maintenance expenses are charged to profit or loss during the period in which they are incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Company.

An item of property and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

The surplus arising on revaluation of tangible assets is credited to a non-distributable reserve. Decreases that offset previous revaluations of the same asset are charged against the revaluation reserve. All other decreases are charged to the statement of comprehensive income. Each year the difference between depreciation based on the revalued carrying amount of the asset (the depreciation charged to the statement of comprehensive income) and depreciation based on the asset's original cost is transferred from the revaluation reserve to revenue reserves. On disposal of revalued assets, amounts in the revaluation reserve relating to that asset are transferred to revenue reserves.

Assets held under finance leases are depreciated over their useful lives on the same basis as owned assets. However, when there is no reasonable certainty that ownership will be obtained by the end of the lease term, assets are depreciated over the shorter of the lease term and their useful lives.

### 3.13 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

#### 3.13.1 Finance leases

Assets held under finance leases are initially recognised as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognised immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Company's general policy on borrowing costs. Contingent rentals are recognised as expenses in the periods in which they are incurred.

#### 3.13.2 Operating leases

Operating lease payments are recognised as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

### 3.14 Intangible assets

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Amortisation is recognised on a straight-line basis over their estimated useful life. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in In profit or loss when the asset is derecognised.

### 3.15 Impairment of tangible and intangible assets

At the end of each reporting period the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

When an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior financial periods. A reversal of an impairment loss is recognised immediately in profit or loss unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

### 3.16 Financial instruments

Financial assets and financial liabilities are recognised when a Company becomes a party to the contractual provisions of the instrument.

#### i. Financial assets

The Company classifies its financial assets in the categories of receivables. Management determines the classification of its investments at initial recognition.

#### (a) Effective interest rate method

The effective interest method is a method of calculating the amortised cost of a financial instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial instrument, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

#### (b) Receivables

Receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Receivables (including trade and other receivables, bank balances and cash) are measured at amortised cost less any impairment.

Receivables are stated after the deduction of amounts which, in the opinion of the Directors, are required for specific provision. Specific provisions are made against identified doubtful receivables.

#### (c) Impairment of financial assets

Financial assets that are measured at amortised cost are assessed for impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial assets, the estimated future cash flows of the asset have been affected.

Objective evidence of impairment could include:

- i. significant financial difficulty of the issuer or counterparty; or
- ii. breach of contract, such as a default or delinquency in interest or principal payments; or
- iii. it becoming probable that the borrower will enter bankruptcy or financial re-organisation; or
- iv. the disappearance of an active market for that financial asset because of financial difficulties.

For certain categories of financial asset, such as receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Company's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 60 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

The amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows reflecting the amount of collateral and guarantee, discounted at the financial asset's original effective interest rate.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade

receivables, where the carrying amount is reduced through the use of an allowance account. When a receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

#### **d) Derecognition of a financial asset**

The Company derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in the statement of comprehensive income.

### **ii. Financial liabilities and equity instruments issued by the Company**

Financial liabilities are classified as trade and other payables, other liabilities and amounts due to related parties.

Trade and other payables and other liabilities are initially measured at fair value and are subsequently measured at amortised cost using the effective interest method.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

#### **(a) Equity instruments**

An equity instrument is any contract that evidences a residual interest in the assets of the Company after deducting all of its liabilities. Equity instruments are recorded at proceeds received, net of direct issue costs.

#### **(b) Bank borrowings and overdrafts**

Interest bearing and overdrafts are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the settlement or redemption of borrowings is recognised over the terms of the borrowings in accordance with company's accounting policy for borrowing costs.

#### **(c) Other financial liabilities**

Other financial liabilities are initially measured at fair value, net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

#### **(d) Derecognition of financial liabilities**

The Company derecognises financial liabilities when, and only when, the Company's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

### **3.17 Investments**

IAS 27 Separate Financial Statements contains accounting and disclosure requirements for investments in subsidiaries, joint ventures and associates when an entity prepares separate financial statements. The Standard requires an entity preparing separate financial statements to account for those investments at cost or in accordance with IFRS 9 Financial Instruments.

The investments represent the equity investments of the Company held at cost in the subsidiaries. These investments are carried at cost as there is no reliable measure of the fair value and regularly reviewed for impairment at each reporting date.

### **3.18 Provisions**

Provisions are recognised when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation, and which a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the statement of comprehensive income date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

### 3.19 Retirement benefits and other employee benefits

#### (i) Defined benefit plan

For defined benefit retirement plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the statement of financial position with a charge or credit recognised in other comprehensive income in the period in which they occur. Remeasurement recognised in other comprehensive income is reflected immediately in accumulated funds and will not be reclassified to income or expenditure. Past service cost is recognised in income or expenditure in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- Service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements).
- Net interest expense or income.
- Remeasurement.

The retirement benefit obligation recognised in the statement of financial position represents the actual deficit or surplus in the company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

#### (ii) Defined contribution plan

The Company and all its employees contribute to the National Pension Scheme, which is a defined contribution scheme. A defined contribution plan is a retirement benefit plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

#### (iii) Termination benefits

Employees on non-fixed term contract of employment (commonly known as "Permanent and Pensionable" employment) are entitled also to long service termination benefits. The benefits are computed in accordance with accrued service period and the terminal pay. Provision is raised in profit or loss on a monthly basis.

A liability for a termination benefit is recognised at the earlier of when the entity can no longer withdraw the offer of the termination benefit and when the entity recognises any related restructuring costs.

#### (iv) Other entitlements

Employee entitlements to annual leave and contract gratuity are recognised when they accrue to employees. Accrued leave pay and gratuity is accounted for in income or expenditure as it arises.

## 4. Critical accounting judgements and key sources of estimation uncertainty

The preparation of financial statements in conformity with the Company's accounting policies which are described in note 3, the Directors are required to make judgements, estimates and assumptions about the carrying amount of assets and liabilities that are readily apparent from other sources. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

### 4.1 Critical judgments in applying accounting policies

#### a) Income taxes

There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Company recognises liabilities for anticipated tax based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact on the income tax and deferred tax provisions in the period in which such determination is made.

#### b) Impairment of trade receivables

The Company reviews its receivables to assess impairment on a regular basis. The Company's credit risk is primarily attributable to its receivables. In determining whether impairment losses should be reported in profit or loss, the Company makes judgements as to whether there is any observable data indicating that there is a measurable decrease in the estimated future cash flows. Accordingly, an allowance for impairment is made where there is an identified loss event or condition which, based on previous experience, is evidence of a reduction in the recoverability of the cash flows.

#### (c) Provision for obsolete inventory

The Company reviews its inventory to assess loss on account of obsolescence on a regular basis. In determining whether provision for obsolescence should be recorded in profit or loss, the Company makes judgements as to whether there is any observable data indicating that there is any future saleability of the product and the net realizable value for such product. Accordingly, provision for obsolescence is made



where the net realizable value is less than cost based on best estimates by the management, ageing of inventories and historical movement of the inventory.

#### **4.2 Key sources of estimation uncertainty**

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period.

##### **(a) Estimated useful lives and residual values of property, plant and equipment**

The Company's management determines the estimated useful lives and related depreciation charge for its items of property, plant and equipment on an annual basis. The Company has carried out a review of the residual values and useful lives of property, plant and equipment as at 31 December 2017 and the management has not highlighted any requirement for an adjustment to the residual lives and remaining useful lives if the assets for the current or future periods.

##### **(b) Contingencies**

Appropriate recognition and disclosure of contingent liabilities is made regarding litigation, tax matters and environmental issues. Accounting for contingencies requires significant judgement by management regarding the estimated probabilities and ranges of exposure to potential loss. The evaluation of these contingencies is performed by various specialists inside and outside of the Company. The Company's assessment of the Company's exposure to contingencies could change as new developments occur or more information.

##### **(c) Impairment of investments in joint ventures and associates**

Investments in joint ventures and associates are reviewed for impairment at the reporting date. Determining whether an investment balance is impaired requires an estimation of the value in use of the joint venture or associate. The value in use calculation requires an estimate to be made of the timing and amount of future cash flows expected to arise from the joint venture or associate and the application of a suitable discount rate in order to calculate the present value. The discount rates used are based on the Company's weighted average cost of capital adjusted to reflect the specific economic environment of the joint venture or associate.

##### **(d) Actuarial valuation assumptions**

Actuarial assumptions made in determining the present obligation of retirement benefits.

## 5. Revenue

	2017 K'000	2016 K'000
Analysis of the Company's revenue for the financial year is as follows by customer sector:		
Mining	4,168,070	5,595,447
Residential	1,578,360	1,152,414
Industrial and agricultural	924,033	866,874
Exports	728,968	597,838
Commercial (retail outlets)	25,419	25,255
	<b>7,424,850</b>	<b>8,237,828</b>

## 6. Cost Of Sales

Local purchases	2,854,000	1,388,611
Emergency power imports	341,560	797,283
Direct labour costs	781,856	728,417
Maintenance costs	368,051	482,997
Power imports (internally financed)	29,822	263,503
Generation water usage costs	83,274	93,643
Local wheeling charges	84,381	83,715
Export wheeling charges	26,081	49,696
	<b>4,569,026</b>	<b>3,887,866</b>

The importation of emergency power reduced significant by 49% due to the improvement of internal generation and the coming on board of Independent Power Producers (IPPs). The cost of Local power purchases from IPPs increased by more than 130%. The IPPs include Maamba Coaleries Limited, Ndola Energy and Itezhi Tezhi Power Corporation Limited whose average cost of power exceeds ZESCO's selling price to customers. The generation at full capacity at Kafue Gorge Power Station, compensated for the reduced generation at Kariba North Bank Power Station which operated slightly above 50% due to limited water allocation and on-going rehabilitation of Generator no:1. During the year the Government disbursed a total of K368.5 million (2016: K1 billion) towards the arrears of emergency power purchases and independent power producers. The Company accrues for expected receipts from Government as receivables and are amortised to profit or loss to match with the cost of emergency power purchases.

## 7. Other Operating Income

Interest on late payments	160,436	-
Amortisation of capital grants and contributions (note 25)	102,387	85,944
Sundry income	95,438	90,756
Fibrecom income	77,338	78,578
Wheeling income	18,429	16,080
Interest income	5,872	6,371
Rental income	2,001	1,915
	<b>461,901</b>	<b>279,644</b>

## 8. Other Gains and Losses

Net exchange (loss) gains	(68,634)	310,990
Gain on disposal of property, plant and equipment	5,162	2,598
	<b>(63,472)</b>	<b>313,588</b>

The Zambian Kwacha depreciated against the US Dollar and other major convertible foreign currencies during the year.

The impact of the depreciation of the Zambian Kwacha during the year is that the Company recorded significant exchange losses on its foreign currency denominated liabilities.

The table below illustrates the movements in the US Dollar exchange rates during the period:

Currency	Mid – market exchange rate as at 1 January 2017	Mid – market exchange rate as at 31 December 2017	Average depreciation during the year
US Dollar (1 US\$ = )	K9.853	K9.953	-1%

## 9. Other Expenses

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Other expenses		790,046
Provision for bad debts	781,817	2,264,847
	4,732	
	<b>786,548</b>	<b>3,054,893</b>

Other expenses	781,817	790,046
Provision for bad debts	4,732	2,264,847
	<b>786,548</b>	<b>3,054,893</b>

## 10. Finance Costs

These comprise of the following:

Interest paid on long-term loans	383,001	309,514
Interest paid on overdraft	15,903	14,919
Finance charges	<b>398,903</b>	<b>324,433</b>

## 11. Loss Before Tax

Loss before tax is stated after crediting:		
Net exchange gains (note 8)	-	310,990
Amortisation of capital grants and capital contributions	102,387	90,756
Interest income	5,872	6,371
Gain on disposal of property, plant and equipment	5,162	2,598
and after charging:		
Employee benefits	1,524,753	1,214,721
Depreciation and amortisation (note 14 and 15)	786,147	466,318
Finance costs (Note 10)	398,903	324,433
Pension costs	87,761	80,180
Directors' fees		
- in connection with the management of the Company	12,135	11,965
- as Directors of the Company	1,504	3,097
Operating lease rental	8,785	7,880
Donations	3,434	3,369
Net exchange losses (note 8)	68,634	-

## 12. Taxation

Income tax charge at 35%		
Deferred taxation (note 13)	(662,787)	(1,488,418)
Income tax charge	46,860	43,207
Income tax credit	(615,927)	(1,445,211)
Subject to agreement with the Zambia Revenue Authority, the Company had estimated tax losses of K9.8 billion (2016: K3.1 billion) which are available for carry forward for a period of 5 years from the year in which they arose and for set off against future taxable profits. The cumulative tax losses comprise:		
2016/2017 losses available until 2020	9,924,903	3,089,940
Included under current liabilities:		
Arising during the year	46,860	43,207
Payable in respect of prior year	1,351,614	1,308,768
	1,398,474	1,351,975
Paid in year	(172,860)	(361)
Payable at end of year	1,225,614	<b>1,351,614</b>

Reconciliation of tax charge

The total income tax expense for the year can be reconciled to the accounting profit as follows:

Profit before tax	(270,359)	(136,571)
Applicable tax rate of 35%	(94,626)	(47,800)
Permanent differences:		
- Capital exchange gains	(581,006)	(1,442,417)
- Other disallowable items	57,728	45,006
	(617,904)	(1,445,211)

### 13. Deferred Tax

At beginning of year	(2,329,431)	(817,079)
Charge to equity	8,977,015	(23,934)
Credit to profit or loss for the year (Note 12)	(662,787)	(1,488,418)
At end of year	5,984,797	(2,329,431)

The following are the major deferred tax (assets) liabilities recognised by the Company and their movements in the year

2016	Net Tax losses K'000	Accelerated capital allowances K'000	Revaluation surplus K'000	Provisions and other K'000	Total K'000
At beginning of year	(1,041,113)	1,141,388	188,084	(1,103,636)	(817,079)
(Credit) charge to profit or loss	(40,367)	582,839	-	(2,030,890)	(1,488,418)
Charge to equity	-	-	(23,934)	-	(23,934)
<b>At end of year</b>	<b>(1,081,480)</b>	<b>1,724,425</b>	<b>164,150</b>	<b>(3,136,526)</b>	<b>(2,329,431)</b>
2017	Net Tax losses K'000	Accelerated capital allowances K'000	Revaluation surplus K'000	Provisions and other K'000	Total K'000
At beginning of year	(1,081,480)	1,724,425	164,150	(3,136,526)	(2,329,431)
(Credit) charge to profit or loss	(2,392,236)	783,457	-	945,993	(662,787)
Charge to equity	-	-	8,977,015	-	8,977,015
<b>At end of year</b>	<b>(3,473,716)</b>	<b>2,507,882</b>	<b>9,141,165</b>	<b>(2,190,533)</b>	<b>5,984,797</b>

### 14. Property, Plant and Equipment

	Civil engineering works and buildings K'000	Generation plant, vehicles equipment K'000	Transmission and distribution systems K'000	Capital work in progress K'000	Total K'000
Cost or valuation					
At 1 January 2016	260,647	950,702	7,715,848	7,898,342	16,825,539
Additions	21,952	148,190	16,518	3,490,083	3,676,743
Transfer of assets from Rural Electrification Authority	-	-	54,552	-	54,552
Transfers from Capital work in progress	7,306	-	3,807,187	(3,814,493)	-
Disposals	-	(3,066)	-	-	(3,066)
At 31 December 2016	289,905	1,095,826	11,594,105	7,573,932	20,553,768
Additions	4,270	41,246	-	3,876,937	3,922,453
Transfers from Capital work in progress	202,277	576,045	4,358,719	(5,137,041)	-
Disposals	-	(23,673)	-	-	(23,673)
Revaluation of assets	10,632,005	2,182,595	9,056,025	-	21,870,625
At 31 December 2017	11,128,457	3,872,039	25,008,849	6,313,828	46,323,173
Cost	290,819	1,319,817	14,671,213	6,313,828	22,595,677
Valuation (1996)	51,779	177,987	1,281,611	-	1,511,377
Valuation (2001)	153,854	191,640	-	-	345,494
Valuation (2017)	10,632,005	2,182,595	9,056,025	-	21,870,625
At 31 December 2017	11,128,457	3,872,039	25,008,849	6,313,828	46,323,173
DEPRECIATION					
At 1 January 2016	65,240	629,026	2,235,109	-	2,929,375



Charge for period	5,302	88,677	363,281	-	457,260
Eliminated on disposal	-	(2,819)	-	-	(2,819)
At 31 December 2016	70,542	714,884	2,598,390	-	3,383,816
Charge for year	128,013	104,141	540,985	-	773,139
Reclassification to intangibles (note 15)	-	(7,989)	-	-	(7,989)
Eliminated on disposal	-	(22,569)	-	-	(22,569)
Eliminated on revaluation	(198,555)	(571,450)	(3,076,369)	-	(3,846,374)
At 31 December 2017	-	217,017	63,006	-	280,023
CARRYING AMOUNT					
At 31 December 2017	11,128,457	3,655,022	24,945,843	6,313,828	46,043,150
At 31 December 2016	219,363	380,942	8,995,715	7,573,932	17,169,952

The Company's Civil engineering works, generation plants and transmission and distribution systems and leasehold buildings are stated at their revalued amounts, being their fair value at the date of revaluation, less any subsequent accumulated depreciation. The fair value measurement of the Company's civil engineering works and buildings and generation plants and transmission and distribution systems as at 31 December 2017 were performed by Messrs Multiconsult United Kingdom and UPmarket Property Consultants respectively, independent valuers not related to the Company.

The information below shows the valuation techniques used as well as the significant inputs used.

<b>Freehold land and buildings</b>	Market based approach - Direct Comparable Method (DCM) and Depreciated Replacement Cost (DRC)	<p>Direct Comparable method renders an estimate of value through comparison with other similar available properties which have recently transacted in the vicinity in an attempt to discern the actions of buyers and sellers active in the market place. The current market value is built up from the Land and improvement values of the buildings derived from comparable transactions. Considerations were made with reference to; Location factor, time of sale, accessibility, quality, prevailing economic property trends.</p> <p>The Depreciated Replacement Cost method determines the present market value of the subject property by estimating the present cost of replacing the building(s) by estimating the total amount of accrued depreciation from all causes, namely physical deterioration, functional obsolescence and external obsolescence, subtracting the accrued depreciation from the present replacement costs, estimating the value of minor improvements and adding the site value to the depreciated cost of the building(s). This method was used where there was no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business.</p>	Not applicable
<b>Civil engineering works and generation plants (Hydro stations, diesel stations and HV stations)</b>	Depreciated Current Replacement Value (DCRV)	The Depreciated Current Replacement Cost (DRCV) method requires that, for each asset under consideration, a value be obtained for a modern equivalent asset (MEA), that being an asset that can reasonably provide like-for-like benefits of the asset under consideration. The current replacement value (CRV) of electrical and mechanical equipment was established using ZESCO data for recent projects. For the civil work structures, a bill of quantities was prepared covering the major work items for each hydro scheme section (e.g. embankments, power intakes, canals, fore bays, power tunnels, pressure shafts, powerhouses etc.). The DCRV has been calculated in the Asset Register on a linear basis, a minimum value of 10% CRV was allocated if the asset is still in service. A scrap value has also been allocated where it is ZESCO's current practice to sell scrap materials.	Market prices, exchange rates, discounted rate
<b>Transmission and distribution systems</b>	Depreciated Current Replacement Value (DCRV)	<p>The DRC method requires that, for each asset under consideration, a value be obtained for a modern equivalent asset (MEA), that being an asset that can reasonably provide like-for-like benefits of the asset under consideration.</p> <p>Transmission line asset prices were obtained from recent ZESCO transmission line projects pricing schedules. An additional 3% on-costs was added to account for the Owner's costs. Line costs were priced per unit length and according to terrain type (flat, hilly and swampy).</p> <p>Distribution equipment pricing data was obtained from recent ZESCO in-house pricing data. Unit installed prices (material and labour) per length of overhead line and underground cable was calculated from these data and a further 100% on-costs were added.</p>	Market prices, exchange rates, discounted rate

Details of the Company's civil engineering works and buildings, generation plants and transmission and distribution systems and information about the fair value hierarchy as at the end of the reporting period are as follows:

Civil Engineering works and buildings	-	-	11,128,457	11,128,457
Generation plants	-	3,655,022	-	3,655,022
Transmission and distribution systems	-	24,945,843	-	24,945,843

The fair value measurements for the civil engineering works and buildings, generation plants and transmission and distribution systems have been categorised as Level 3 fair values based on the inputs to the valuation techniques used.

There were no transfers between fair value levels during the year.

Had the Company's civil engineering works and buildings, generation plants and transmission and distribution systems been measured on a historical cost basis, their carrying amounts would have been as follows:

Civil Engineering works and buildings	297,897	219,363
Generation plants	374,024	380,942
Transmission and distribution systems	12,813,449	8,995,715

The significant inputs include the estimated construction costs and other ancillary expenditure. A slight increase in the depreciated factor would result in a significant decrease in the fair value of the buildings and civil engineering works, and a slight increase in the estimated construction costs would result in a significant increase in the fair value of the buildings, and vice versa.

In the opinion of the Directors there are no major components of Property, Plant and Equipment which have different useful lives that would require to be depreciated separately and allocated separate residual values.

In accordance with Section 193 of the Companies Act, 1994, the register of Land and Buildings is available for inspection by members and their duly authorised agents at the Registered records office of the Company.

## 15. Intangible Asset

	2017 K'000	2016 K'000
Cost		
At beginning of year	143,448	143,448
Loss on revaluation	(74,708)	-
At end of year	68,740	143,448
Accumulated amortisation		
At beginning of year	(57,363)	(48,305)
Amortisation expense	(13,013)	(9,058)
Reclassification from property, plant and equipment (note 14)	(7,989)	-
Elimination of accumulated amortisation	78,365	-
Balance at 31 December	-	(57,363)
Carrying amounts:		
At end of year	68,740	86,085

The following useful lives are used in the calculation of amortisation:

Software	5 years
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### Significant intangible assets

The intangible assets consists of oracle software and the business information systems.

The Company's intangible assets are stated at their revalued amounts, being their fair value at the date of revaluation, less any subsequent accumulated amortisation. The fair value measurement of the Company's intangible assets as at 31 December 2017 were performed by Messrs Multiconsult United Kingdom, independent valuers not related to the Company.

The information below shows the valuation techniques used as well as the significant inputs used.

Oracle software and other related software	Current Replacement cost	The method determines the amount that ZESCO Limited would have to pay to replace an asset at the present time, according to its current worth of the software on the market.	Not applicable
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Details of the Company's intangible assets and information about the fair value hierarchy as at the end of the reporting period are as follows:

<b>Intangible assets</b>	-	-	<b>68,740</b>	<b>68,740</b>
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The fair value measurements for intangible asset have been categorised as Level 3 fair values based on the inputs to the valuation technique used.

There were no transfers between fair value levels during the year.

## 16. Investments

These represent the investment interest in the following companies at cost:

	<b>2017 K'000</b>	<b>2016 K'000</b>
Kafue Gorge Lower Power Development Corporation Limited	1,403,135	1,348,384
Itezhi tezhi Power Corporation Limited (ITTPC)	164,255	163,132
Elsewedy Electric Zambia Limited	11,351	11,351
Zambia Electrometer Limited	6,350	6,350
ERB Strategic Reserve Fund	13,596	8,804
Kariba North Bank Extension Power Corporation Limited	10	10
	<b>1,598,697</b>	<b>1,538,032</b>

The movement in the investment during the year was as follows:

Balance at beginning of year	1,538,032	459,659
Additions during the year	60,665	1,078,373
Balance at end of the year	<b>1,598,697</b>	<b>1,538,032</b>

### Kafue Gorge Lower Power Development Corporation

Zesco Limited holds 100% shares in Kafue Gorge Lower Power Development. The investment is carried at cost. The entity acquired 1,000,000 shares. This is therefore a subsidiary.

### Kariba North Bank Extension Power Corporation

Zesco Limited holds 100% shares in Kariba North Bank Extension Power Corporation. The investment is carried at cost. The entity's shareholding remained unchanged at 10,000,000 shares. This is therefore a subsidiary.

### Itezhi tezhi Power Corporation Limited (ITTPC)

ZESCO Limited holds 50% shares in Itezhi tezhi Power Corporation Limited, co-owned with Tata Africa Holdings of India which owns 50% shareholding representing 2,500,000 shares. Zesco Limited is therefore in a joint venture with Tata Africa Holdings. The investment is carried at cost.

### Elsewedy Electric Zambia Limited

ZESCO Limited holds 40% shares in Elsewedy Electric Zambia Limited. The investment is carried at cost. The entity's shareholding remained unchanged at 2,000,000 shares. This is an associate of Zesco Limited.

### Zambia Electrometer Limited

ZESCO Limited holds 40% shares in Zambia Electrometer Limited. The investment is carried at cost. The entity's shareholding remained unchanged at 1,000,000 shares. This is an associate of Zesco Limited.

### ERB Strategic Reserve Fund

In accordance with section 20(2)(c) of the Energy Regulation Act, chapter 436 of the laws of Zambia, ZESCO Limited is required to make contributions based on 1% of the additional gross revenue on the tariff increment awarded to it by Energy Regulation Board on the 1 July 2014. The Fund is planned to be used for developmental projects in the energy sector. ZESCO Limited is currently the sole contributor to the fund of which contributions began in the period under review. The Statutory Instrument to guide the strategic reserve fund management is yet to be finalised.

These financial statements are for the parent company only and are prepared in accordance with IAS 27 Separate financial statements. The subsidiaries, associates and joint ventures will be consolidated in the group financial statements.

## 17. Inventory

	2017 K'000	2016 K'000
Materials	838,337	811,583
Goods in transit	145,599	138,422
Fuel and lubricants	13,244	10,243
Spares	8,095	7,008
	1,005,275	967,255
Allowance for obsolescence	(2,512)	(2,276)
	1,002,763	964,979

The cost of inventories recognised as an expense during the year was K256 million (2016: K214 million).

Inventories are disclosed net of provision for obsolete stock amounting to K2.5 million (2016: K2.3 million).

## 18. Trade and other Receivables

	2017 K'000	2016 K'000
The balance comprises:		
Gross trade receivables	4,841,523	6,463,624
Allowance for doubtful debts	(3,524,635)	(5,048,851)
	1,316,888	1,414,773
<b>Other receivables</b>		
Other receivables	1,535,532	722,638
Staff receivables	53,998	97,704
Allowance for doubtful debts	(478,871)	(465,338)
	1,110,659	355,004
Total trade and other receivables	2,427,547	1,769,777
The movement in allowance for doubtful trade receivables is as follows:		
Balance at beginning of year	5,048,851	2,620,575
Charge for the year	158,670	2,428,276



Reversal of impairment losses recognised on trade Receivables	(1,687,953)	-
<b>At end of the year</b>	<b>3,519,568</b>	<b>5,048,851</b>
The movement in allowance for doubtful debts for other receivables is as follows:		
Balance at beginning of year	465,339	446,895
Charge for the year	20,840	18,444
Reversal of impairment losses recognised on other receivables	(2,240)	-
<b>At end of the year</b>	<b>483,939</b>	<b>465,339</b>

The average credit period on sales of services is 30 days. Trade receivables over 90 days are provided for based on estimated irrecoverable amounts from the sale of services, determined by reference to past default experience.

#### Ageing of past due but not impaired trade receivables

30 - 60 days	67,419	65,827
60 - 90 days	61,762	349,972
Over 90 days	90,484	820,709
	<b>219,665</b>	<b>1,236,508</b>

Trade receivables disclosed above include amounts that are past due at the end of the reporting period for which the Company has not recognised an allowance for doubtful debts because there has been no significant change in credit quality and are still considered recoverable

In determining the recoverability of trade receivables, the Company considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the reporting date. The Directors believe that there is no further credit provision required for doubtful debts.

Penalties are charged for late payment on mining customers. Performance of trade debtors are reviewed by management on an on going basis.

30 - 60 days	-	565,176
60 - 90 days	-	956,521
Over 90 days	3,464,606	3,527,154
	<b>3,464,606</b>	<b>5,048,851</b>

## 19. Share Capital

Authorised		
200,000,000 ordinary shares of K0.002 each	400	400
Issued and fully paid 96,894,542 ordinary shares of K0.002 each	194	194

## 20. Amounts Pending Allotment of Shares

Shares pending allotment (a)	21	21
Shares pending allotment (b)	1,654,785	1,654,785
Shares pending allotment (c)	1,170,118	1,170,118
	<b>2,824,924</b>	<b>2,824,924</b>

- The amount was received from Zambia Industrial and Mining Corporation Limited (In Liquidation) in 2003.
- The amount was received 4 February 2013 from the Ministry of Finance as a recapitalisation to fund the development of Kafue Gorge Lower Hydro Power Station (US\$186 million) and Distribution development projects (US\$69 million) and K276 million for the development of small hydro power stations and the Zambia power rehabilitation project.
- The Government as shareholder, has confirmed that no repayment will be required for these amounts. However, the requirement is for the funds to be utilised on the intended projects as set out above. In accordance with IAS 32 paragraph 16, the funds fall to be treated as share capital.
- The Government as shareholder, on the 28 December 2015 approved the conversion of on-lent loans in ZESCO Limited to equity amounting to US\$156 million or K1.1 billion.
- Subsequent to the reporting date on 5 April 2018 authorised share capital was increased to K5 billion divided into 2.5 billion shares at K2 per share from K400,000.

## 21. Related Party Transactions

The Company is a wholly owned subsidiary of Industrial Development Corporation Zambia Limited, a company incorporated in Zambia and owned and controlled by the Government of Zambia. During the year the Company carried out transactions with related parties as detailed below:

### (i) Trading transactions

The effect on the results for the year of these transactions is as follows:

	2017 K'000	2016 K'000
Gross revenue	194,616	527,179
Cost of sales	(259,281)	(258,661)
Trading impact on Company	(64,665)	268,518

Trading impact on Company

### (ii) Year end balances

#### a) Amounts due from related parties

Government of the Republic of Zambia	1,905,781	1,192,762
Itezhi tezhi Power Corporation Limited (ITTPC) incorporated in Zambia	298,995	282,274
Kariba North Bank Extension Power Corporation incorporated in Zambia	155,426	128,714
Zambia Electrometer Limited, incorporated in Zambia	2,209	2,209
Rural Electrification Authority	3,821	-
	2,366,232	1,605,959

The amounts outstanding are unsecured and will be settled in cash. No guarantees have been given or received. No expense has been recognised in the year for bad or doubtful debts in respect of the amounts due from related parties.

#### (b) Amounts due to related parties

Itezhi tezhi Power Corporation Limited (ITTPC) incorporated in Zambia	1,133,828	479,878
Kariba North Bank Extension Power Corporation Limited	149,584	129,821
Elsewedy Electric Zambia Limited	100,065	92,677
Zambia Electrometer Limited	-	36,164
	1,383,477	738,540

Kariba North Bank Extension Power Corporation Limited and Kafue Gorge Lower Corporation are subsidiary companies, while Itezhi Tezhi Power Corporation is a joint venture investment with 50% shareholding. Elsewedy Electric Zambia Limited and Zambia Electrometer Limited are associates.

#### (c) Loan due from a related party

At beginning of year	2,769,565	3,090,111
Net exchange (loss) gain	28,136	(320,546)
<b>At end of the year</b>	<b>2,797,701</b>	<b>2,769,565</b>

The borrowing is a term loan facility of USD315.6 million to Kariba North Bank Extension, the subsidiary. The loan does not bear any interest and is repayable on demand. The loan amount is secured on property, plant and machinery of the project and is denominated in United States Dollars.

#### (d) Key management personnel remuneration

Key management remuneration	12,135	11,966
Directors fees	1,504	3,097
	13,639	15,063

## 22. Operating Lease Commitments

### Rental expense on leasehold building

Operating lease payments represent rentals payable by the Company for the building used as the Company's customer service centres and office space.

Minimum lease payments paid under operating leases recognised as an expenses in the year.	8,785	7,880
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At the reporting date, the Company had no outstanding commitments under non-cancellable operating leases.

## 23. Borrowings

	2017 K'000	2016 K'000
The movement on loan is as follows:		
At beginning of year	12,592,444	11,057,335
Borrowings arising during the year	1,133,770	4,104,239
Net exchange (losses)	(459)	(1,301,448)
Repayments made during the year	(925,300)	(1,267,682)
	<b>12,800,455</b>	<b>12,592,444</b>
Balance at end of the year		
The borrowings are repayable as follows:		
On demand or within one year	1,508,901	1,442,126
Loans payable within 2 years	2,187,965	3,436,771
Loans payable within 3-5 years	3,281,947	2,901,267
Loans payable after 5 years	5,821,642	4,812,280
	<b>11,291,554</b>	<b>11,150,318</b>
	<b>12,800,455</b>	<b>12,592,444</b>

The borrowings are due to the following:

i. Industrial Commercial Bank of China	2,834,097	2,805,594
ii. China Exim Bank	2,131,582	2,373,913
iii. Standard Chartered Bank	1,214,303	1,202,090
iv. Nordea Stanbic Bank	1,324,283	1,053,631
v. DBSA - Loan Kafue Gorge Hydro Power Station	995,330	985,320
vi. India Exim Bank	471,104	466,366
vii. China Exim	448,542	444,031
viii. European Investment Bank	411,612	407,473
ix. GRZ/International Development Association - Kafue Muzuma	407,204	375,202
x. GRZ/Agence Francaise De Development	342,394	338,950
xi. African Development Bank	305,684	291,762
xii. Industrial Commercial Bank of China Facility Loan - Musonda Falls	298,053	-
xiii. Standard Bank	206,010	262,207
xiv. GRZ/International Development Agency	164,989	37,766
xv. Stanbic Bank	151,469	216,589
xvi. European Investment Bank	140,319	96,256
xvii. Bank of China	120,665	199,086
xviii. ZANACO - Short Term Facility	113,827	-
xix. Stanbic Bank	97,722	161,232
xx. Development Bank of Southern Africa Bank 1	88,006	90,993
xxi. Industrial Commercial Bank of China Facility-Chipata-Lundazi	73,625	-
xxii. Nigeria Trust Fund	59,693	58,698
xxiii. Industrial Commercial Bank of China Facility-Mpika Transmission	57,550	-
xxiv. GRZ/Japan International Cooperation Agency	46,645	42,675
xxv. CNMC Industrial Zone Development	44,272	51,131
xxvi. GRZ/World Bank	43,921	43,479
xxvii. European Investment Bank 2	38,710	39,949
xxviii. Agency Francaise de Development	35,681	-
xxix. GRZ/World Bank Facility 2	32,226	31,902
xxx. Sinohydro Bridging Loan II-Musonda Falls	28,841	166,541
xxxi. Barclays Bank Zambia Plc	25,549	57,527
xxxii. EIB - LTDRP LOAN FACILITY	22,578	
xxxiii. Zambia National Commercial Bank Plc	13,318	151,366
xxxiv. Standard Chartered Bank	10,652	42,183

	2017 K'000	2016 K'000
xxxv. Sinohydro Corporation Limited	-	98,532
	12,800,455	12,592,444

Summary of the arrangements:

#### i. Industrial Commercial Bank of China

This is a US\$285 million loan facility obtained from Industrial Commercial Bank of China on 30 May 2011 to finance the Pensulo-Msoro-Chipata West 330 KV and Pensulo-Kasama 330 kV Transmission lines. Interest is 2.5% Margin plus LIBOR (Screen Rate), the Loan will be repaid over 10 years. The loan is denominated in United States Dollar and the balance at the reporting date was US\$284.7 million or K2.8 billion.

#### ii. China Exim Bank

This is a US\$315.6 million loan facility was obtained from China Exim Bank in October 2008 with tenure of 15 years. Interest is computed at LIBOR plus 2% per annum. The facility is secured by receivables from Copperbelt Energy Corporation and Chambeshi Mining Company. The loan is denominated in United States Dollar and as at reporting date, the loan balance was US\$214.2 million or K2.1 billion.

#### iii. Standard Chartered Bank

This is a US\$122 million loan facility obtained from Standard Chartered Bank in February 2016 to refinance the \$40 million bridge facility and other general corporate purposes relating to capital projects but not limited to the upgrading of Musonda falls power station, new Lusiwasi Upper 15 MW plant, construction of Chama Lundazi Transmission Line. Interest is charged at an average of 5.75% plus 6 month Libor, semi-annum and the loan (principal plus interest) will be repaid over 7 years including 2 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$122 million or K1.2 billion.

#### iv. Nordea Stanbic Bank

This is a US\$133 million loan facility obtained from Nordea bank on 14 August 2014. The loan was obtained to finance the connection of North western Province to the National Grid. The loan shall be repaid over a 14 year period including a grace period of 2 years. The interest rate is 3.69% per annum payable semi-annual. The loan facility is in United States Dollar and the balance at the reporting date was US\$133.1 million or K1.3 billion.

#### v. Development Bank of South Africa (DBSA) (KGL)

This is a US\$100 million loan facility obtained from Development Bank of South Africa (DBSA) on 4 May 2016 to finance the Kafue Gorge Lower Hydro Power Project. Interest is charged at 9.4% plus 6 month Libor, semi-annum and the loan (principal plus interest) will be repaid over 15 years including 2 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$100 million or K995.3 million.

#### vi. India Exim Bank

This is a US\$63.39 million facility obtained from India Exim bank on 9 June 2012. The loan was obtained to finance the connection of Luangwa to the national grid. The loan will be repaid in seven equal installments. The interest rate is LIBOR plus 5.5%. The facility is in United States Dollar and the balance as at the reporting was US\$47.3 million or K471 million.

#### vii. China Exim Bank

This is a US\$45 million facility obtained from China Exim bank through the Ministry of Finance on 13 October 2014. The loan was obtained to Finance the Kariba North Bank- Kafue west 330KV transmission project. The interest rate is 2%. The facility is in United States Dollar and the balance as at the reporting was US\$45 million or K448.5 million.

#### viii. European Investment Bank

This is a EUR 50 million loan facility from the European Investment Bank (EIB) by the Government of the Republic of Zambia on the 10 December 2012. The facility was obtained for the purpose of financing the Itezhi-Tezhi Hydro Power plant, Mumbwa Substation and Lusaka West - Mumbwa Transmission Line Project. The facility shall be settled over a period of twenty five (25) years including a grace period of five (5) years. The interest is charged at 1.2% per cent per annum. The balance at the reporting date was US\$41.6 million or K411.6 million.

#### ix. GRZ/International Development Association-Kafue Muzuma

This is a US\$60 million loan facility obtained from the International Development Association on 6 December 2012 by the Government of the Republic of Zambia and on lent to ZESCO to finance the Kafue Muzuma Transmission Project. Interest shall be computed at 2% per annum and the loan (principal plus interest) will be repaid over 20 years including 5 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$40.9 million or K407.2 million.

#### x. GRZ/Agence Francaise De Development

This is a US\$34.4 million loan facility obtained from the International Development Association on 18 December,2012 by the Government of the Republic of Zambia and on lent to ZESCO to finance the construction of Itezhi Tezhi Power Station. Interest is computed at 1.5% semi annum and the loan (principal plus interest ) will be repaid over 25 years including 5 years of grace period. The loan is denominated in United States Dollar. The balance at reporting date was US\$34.4 million or K342.4 million.



#### **xi. African Development Bank**

This is a US\$30 million loan facility obtained from the African Development Bank (ADB) by the Government of the Republic of Zambia on 19 December 2012. The loan was obtained to finance the transmission line for the Itzhi-Tezhi Hydro Power and Transmission Line Project. The loan facility is in United States Dollars and the balance at the reporting date was US\$30.7 million or K305.7 million.

#### **xii. Industrial and Commercial Bank of China**

This is a US\$35.25 million loan facility obtained from Industrial and Commercial Bank of China by ZESCO Limited on the 26 January 2017. The loan facility was obtained to finance the rehabilitation and upgrading of Musonda Falls Hydro Power Plant. The loan shall be repaid over a 15 year period including a grace period of 3 years. The interest is LIBOR plus 3.35% per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$29.9 million or K298 million.

#### **xiii. Standard Bank of South Africa**

This is a US\$29.5 million facility obtained from Standard Bank of South Africa. The loan was obtained to finance the connection of Northwestern Province to the National grid. The interest rate is LIBOR plus 5% per annum. The loan is to be repaid over a period of 7 years with a 2 years grace period. The facility is in United States Dollar and the amount as at the reporting date was US\$20.7 million or K206.2 million.

#### **xiv. GRZ/International Development Association**

This is a US\$105 million loan facility obtained from the International Development Association on 3 October 2013 by the Government of Republic of Zambia and on lent to ZESCO to finance the Lusaka Transmission and Distribution Rehabilitation Project. Interest is charged at 1.5% semi-annum and the loan (principal plus interest) will be repaid over 30 years including 10 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$16.6 million or K165 million.

#### **xv. Stanbic Bank**

This is a US\$31 million Letter of Credit facility obtained from Stanbic Bank (Z) Limited meant to finance importation, mobilisation and installation of equipment by Elsewedy of Egypt. The Letter of Credit agreement was finalised on the 17 February 2014 for a period of 70 months, with a grace period of 15 (Fifteen) months. The repayment will be US\$563,636 in equal installments of 55 months. The Letter of Credit was secured against the Company's receivables. The facility is in nited States Dollar and the balance at reporting date was US\$15.2 million or K151.5 million.

#### **xvi. European Investment Bank**

This is a EUR 22 million loan facility obtained from the European Investment Bank (EIB) by the Government of the Republic of Zambia on the 4 of December 2012. The Government agreed to on-lend to ZESCO Limited on the terms and conditions set forth in the finance contract. The purpose of the facility was to finance the Kafue-Livingstone transmission Line project. The loan facility shall be repaid to the Government in equal semi-annual installments beginning five (5) years after the signature date of the on-lending loan and ending ten (10) years after the date of such agreement. The interest is charged at one and half percent (1.5%). The loan facility is in US\$14.1 million or K141.3 million.

#### **xvii. Bank of China**

This is a US\$48.4 million loan facility obtained from Bank of China on 20 May 2011. The loan was obtained to finance the extension of fibre network to other parts of the country. The facility is for duration of 8 years with the grace period of 2 years. The interest rate is LIBOR plus 3% per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$12.1 million or K120.7 million.

#### **xviii. ZANACO Shortterm Facility**

This is a US\$14.21 million loan facility obtained from Zambia National Commercial Bank by ZESCO Limited on the 18 July 2017. The loan facility was obtained to finance 15% advance payments to ZTE Corporation, KEC International, Howell and Sinohydro Corporation for delivery, supply and construction of Metropolitan Area Networks and transmission assets. The interest is at 8% and is paid monthly together with the principal. The loan facility is denominated in United States Dollars and will be repaid within 24 months. The balance at the reporting date was US\$11.4 million or K113.8 million.

#### **xix. Stanbic Bank**

This is a US\$30 million letter of credit facility obtained from Stanbic Bank (Z) Limited meant to finance importation, mobilisation and installation of equipment by Elsewedy of Egypt. The Letter of Credit agreement was finalised on the 1 August 2013 for a period of 70 months, with a grace period of 15 months. The repayment will be US\$545,455 in equal installments of 55 months. The Letter of Credit was secured against the Company's receivables. The facility is in nited States Dollar and the balance at reporting date was US\$9.8 million or K97.8 million

#### **xx. Development Bank of Southern Africa**

This is a ZAR210.4 million loan facility obtained from Development Bank of South Africa Bank on 22 July 1998. The loan was obtained to finance the Power Rehabilitation Projects. The duration of the loan is 20 years including a grace period of 5 years. The loan facility has a fixed interest rate of 15.25% per

annum. The balance as at the reporting date was ZAR109.6 million or K88 million.

#### **xxi. Industrial and Commercial Bank of China**

This is a US\$36.84 million loan facility obtained from Industrial and Commercial Bank of China by ZESCO Limited on the 10 August 2017. The loan facility was obtained to finance the Connection of Lundazi and Chama to the National Grid. The loan shall be repaid over a 15 year period including a grace period of 3 years. The interest is LIBOR plus 3.35% per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$7.4 million or K73.6 million.

#### **xxii. Nigeria Trust Fund**

This is a US\$6.4 million loan facility obtained from the Nagerian Trust Fund by the Government of the Republic of Zambia on the 19 December 2012. The loan was lent to ZESCO Limited for the purpose of financing the Itzhi-Tezhi Hydro Power and Transmission Line project. The loan shall be repaid over a period of twenty five (25) years including a grace period of five (5) years. The interest is charged at zero point seventy five (0.75%) per annum fixed interest rate. The loan facility is in United States Dollars and the balance at the reporting date was US\$5.9 million or K59.7 million.

#### **xxiii. Industrial and Commercial Bank of China**

This is a US\$29.6 million loan facility obtained from Industrial and Commercial Bank of CHina by ZESCO Limited on the 13 July 2016. The loan facility was obtained to finance the improvement of power supply in Mpika. The loan shall be repaid over a 15 year period including a grace period of 3 years. The interest is LIBOR plus 3.35% per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$5.8 million or K57.6 million.

#### **xxiv. GRZ/Japan International Cooperation Agency (JICA)**

This is a Yens 5 billion loan facility obtained from JICA by Government of Republic of Zambia on 1 November 2010. The loan was lent to ZESCO to finance the Increased Access to Electricity Project. The loan shall be repaid over a 15 year period including a grace period of 5 years. The interest is charged at 0.05% per annum. The loan facility is in Japanese Yen and the balance at the reporting date was Yens 508 million or K46.6 million.

#### **xxv. CNMC Industrial Zone Development**

The facility was obtained as capital contribution in 2009 on the Chambishi line from CNMC Industrial Zone Development who contributed 40% of the total project costs of US\$27.8 million (i.e. US\$11.1 million). It is to be paid in 180 equal instalments of US\$61,778 per month. There is no interest

on this amount and there is no security attached to the agreement. The balance at the reporting date was US\$4.4 million or K44.3 million.

#### xxvi. GRZ/World Bank

This is a US\$16 million loan facility obtained from World Bank by Government of Republic of Zambia on 9 February 2009. The loan was lent to ZESCO to finance the Increased Access to Electricity Project. The loan shall be repaid over a 20 year period including a grace period of 5 years. The loan will have a 2% interest charge per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$4.4 million or K43.4 million.

#### xxvii. European Investment Bank 2

This is a EUR7.6 million loan facility obtained from European Investment Bank by ZESCO Limited on 12 July 2005 to finance the Kariba North Bank Power Station Rehabilitation and Upgrading Works under Power Rehabilitation Projects. The interest rate is 3.3% per annum. The loan facility is in Euro and the balance at the reporting date was EUR3.3 million or K38.1 million.

#### xxviii. Agence Francaise de Development

This is a €40 million loan facility obtained from Agency Francaise de Development by GRZ and on lent to ZESCO Limited on the 23 June 2016 to finance the improvement of power supply in Southern Division. The loan shall be repaid over a 20 year period including a grace period of 5 years. The interest rate 5.00% per annum Fixed. The loan facility is in Euros and the balance at the reporting date was €3.0 million or K35.7 million.

#### xxix. GRZ/World Bank Facility 2

This is a US\$10 million loan facility obtained from World Bank by Government of Republic of Zambia on 21 March 2010. The loan was lent to ZESCO to finance the Increased Access to Electricity Project. The loan shall be repaid over a 20 year period including a grace period of 5 years. The loan will have a 2% interest charge per annum. The loan facility is in United States Dollar and the balance at the reporting date was US\$3.2 million or K32.2 million.

#### xxx. Sinohydro Corporation Limited

This was a US\$ 29 million loan facility (Bridging finance) obtained from Sinohydro Corporation Limited by ZESCO Limited on the 17 October 2016. The facility was obtained for the purpose of rehabilitation and upgrading works at the Musonda Falls Hydropower Station. The tenure of the facility is from the date when the agreement came into effect to the date when the funds are available to the employer from the financial institution. Funds and Interest shall be repaid at once after the employer obtains financing. The interest is charged at 7% per annum. The balance at the reporting date was US \$2.9 million or K28.8 million.

#### xxxi. Barclays Bank Zambia Plc

This is a letter of credit facility of US\$15 million from Barclays Bank Plc Limited obtained on 7 November 2012, with tenure of 70 months and is repayable over 55 months. The facility is secured by company's receivables deposited in Barclays Bank Accounts. The facility is in United States Dollar and the balance at reporting date was US\$2.6 million or K25.5 million.

#### xxxii. European Investment Bank

This is a US\$106 million loan facility obtained from the European Investment Bank on 3 October 2013 by the Government of Republic of Zambia and on lent to ZESCO to finance the Lusaka Transmission and Distribution Rehabilitation Project. Interest is charged at 1.2% semi-annum and the loan (principal plus interest) will be repaid over 30 years including 10 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$2.3 million or K22.6 million.

#### xxxiii. Zambia National Commercial Bank Plc

This is a letter of credit facility of US\$80 million from Zambia National Commercial Bank Zambia Limited, incorporated in Zambia with tenure of 70 months, and is repayable in 55 monthly instalments. The loan is denominated in United States Dollar and as at reporting date the loan balance was US\$1.34 million or K13.3 million. The facility is secured by company's collections and guarantee from the Government of the Republic of Zambia.

#### xxxiv. Standard Chartered Bank

This is a letter of credit facility of US\$15 million from Standard Chartered Bank PLC, incorporated in Zambia with tenure of 84 months or 7 years, is repayable in equal instalments of US\$267,570.15 over 55 monthly instalments. The letter of credit is in United States Dollar and the balance at the reporting date was US\$1.1 million or K10.7 million.

#### xxxv. Sinohydro Corporation Limited

This is a US\$10 million facility (Bridging finance) obtained from Sinohydro Corporation Limited by ZESCO Limited on the 17 September 2015. The facility was obtained for the purpose of rehabilitation and upgrading works at the Musonda Falls Hydropower Station. The tenure of the facility is from the date when the agreement came into effect to the date when the funds are available to the employer from the financial institutions. Funds and Interest shall be repaid at once after the employer obtains financing. The interest is charged at 7% per annum. The Bridging Loan was fully paid on 11 August 2017 by ICBC Bank financing the Musonda Falls Project.

#### Breach of loan agreements

During the current year, the Company was

not compliant with the following covenants:

#### (i) European Investment Bank

The Company was not in compliance with some covenants because the current ratio was less than 1, the Debt Service Cover ratio was less than 2 and; ratio of long term debt to equity was more than 1

#### (ii) Barclays Bank Zambia Plc

The Company was non-compliant with the Barclays Bank letter of credit as the interest cover was below 1.5 times and the current ratio was less than 1.

#### (iii) Development Bank of South Africa

The Company was non-compliant with the DBSA loan in which the capital expenditure plan and budget were not submitted within 20 days before the start of each of its financial years. We also noted that the Company was in breach with the leverage and the Debt Service Cover ratios.

#### (iv) Standard Chartered Bank

Debt to equity ratio was 2.2:1 which is higher than the covenant of 1.5:1, the Gross Debt to EBITDA was more than 6:1; and the Debt Service Cover Ratio was less than 1.25."

#### (v) Stanbic Bank

The Company was non-compliant with the Letter of Credit agreement in which the annual budget were not submitted within 60 days after the reporting date. We also noted that the Debt to Equity percentage exceeded 140%, the Available Cash Flow Before Debt Service to all Principal and Interest Debt Service fell below 1.25:1 and the ratio of Gross Debt to EBITDA was more than 6.

#### (vi) Bank of China

The Company was non-compliant as the EBITDA to Total Interest Cost was less than 2 and; the ratio of Total Liabilities to Total Assets was more than 70%.

#### (vii) Zanaco Bank

The Company was non-compliant as the gearing ratio was more than 1; and the current ratio was less than 1."

## 24. Retirement Benefit Obligation

### (i) Defined contribution plan

Defined contribution plans are a pension plan under which the Company pays fixed contributions into the National Pension Scheme Authority, which is a defined contribution plan. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

The Company's contributions to the defined contribution schemes are charged to profit or loss in the year to which they relate. The Company has no further obligation once contributions have been paid.

The total expense recognised in the profit or loss of K60.9 million (2016 - K54 million) represents contributions payable to these plans by ZESCO.

### (ii) LASF defined benefit plan

In accordance with IAS 19 Employee Benefits paragraph 62 an entity is required to recognise the net defined benefit liability in the statement of financial position. However when sufficient information is not available to use defined benefit accounting for a multi-employer defined benefit plan, an entity shall account for the plan as if it were a defined contribution plan.

The Company operates a defined benefits pension scheme which is funded by the payment of contributions to a separately administered fund called the Local Authorities' Superannuation Fund ("LASF"). This fund administers the pension schemes of a number of organisations, including all local authorities. The last actuarial valuation of the entire fund for the five years period to 31 December 2012 was carried out and showed a deficit of K723 million. These deficits are not the latest actual valuation attributed to individual member organizations as the valuation was performed three years ago. Accordingly updated information on the actuarial deficit is not available to enable the entity to account for the plan as a defined benefit plan. On this basis the Company has opted to account for the plan as if it were a defined contribution plan.

In addition no provision has been made in these financial statements for any unfunded liability of the company as the directors are of the opinion that any liability will be met by the Government of the Republic of Zambia.

The total cost of pension contributions during the year was K25 million (2016: K26 million).

### (iii) Long service retirement benefit

Employee benefits obligation comprises liabilities for retirement benefits. The movements on the account during the year were as follows:

	2017 K'000	2016 K'000
At beginning of the year	2,032,522	1,984,622
Current service cost	413,149	264,745
Benefits paid during the year	(256,906)	(216,845)
At 31 December	2,188,765	2,032,522
Disclosed in the financial statements as:		
Non-current	2,063,280	1,937,610
Current	125,485	94,912
	<b>2,188,765</b>	<b>2,032,522</b>

## 25. Capital Grants and Capital Contributions

	Capital Grants K'000	Capital Contributions K'000	Total K'000
At 1 January 2016	290 533	1097 329	1387 862
Additions during the year	-	177 881	177 881
Adjustment	54 552	-	54 552
Amortisation of capital grants and contributions	(19,806)	(70,950)	(90,756)
<b>At 31 December 2016</b>	<b>325,279</b>	<b>1,204,260</b>	<b>1,529,539</b>
Additions during the year	-	991 466	991 466
Amortisation of capital grants and contributions	(21,780)	(80,607)	(102,387)

At 31 December 2017

**Maturity analysis:**

	303,499	2,115,119	2,418,618
Non current		2,308,755	1,312,188
Current		109,863	217,351
<b>Total</b>		<b>2,418,618</b>	<b>1,529,539</b>

## 26. Trade and other Payables

Trade payables	6,404,275	3,084,250
Sundry payables and accrued expenses	581,181	680,690
Employee related accruals	352,940	326,247
	<b>7,338,396</b>	<b>4,091,187</b>

Trade and other payables principally comprise amounts outstanding to Independent Power Producers and other supply of goods and services incurred during normal business activities as well as amounts accrued in respect of operating costs.

The average credit period on purchases of certain goods is 30 days. The Company ensures that all payables are paid within the credit time frame.

The Directors consider that the carrying amount of trade and other payables approximates their fair value.

## 27. Bank Overdraft

Barclays Bank Zambia Plc	52,948	50,350
Zambia National Commercial Bank Plc	41,876	14,778
Standard Chartered Bank Zambia Plc	-	5,265
	<b>94,824</b>	<b>70,393</b>

### Barclays Bank Zambia Plc

An overdraft banking facility amounting to K50 million. The overdraft was agreed in January 2017 with a 12 month tenor with interest payable monthly at three month LIBOR plus 15.5%. The facilities are repayable strictly on demand. The amount drawn as on 31 December 2017 under this facility is K52 million (2016: K50 million).

### Zambia National Commercial Bank Zambia Plc

An overdraft banking facility amounting to K50 million. The overdraft was initially agreed in November 2014 of K25 million, and in September 2017 the facility was increased to K50 million with a 12 month tenor with interest payable monthly at three month LIBOR plus 3.75%. The facilities are repayable strictly on demand. The amount drawn as on 31 December 2017 under this facility was K41 million (2016: K14.8 million). The facility is secured against unlimited collections held in the bank accounts from time to time.



## Standard Chartered Bank Zambia Plc

An overdraft banking facility amounting to K10 million. The overdraft was agreed in April 2017 with a 12 month tenor with interest payable monthly at three month LIBOR plus 10.5%. The facilities are repayable strictly on demand. The amount drawn as at 31 December 2017 under this facility was Nil (2016:K5.3 million).

## 28. Financial Instruments

### Capital risk management

The Company manages its capital to ensure that it will be able to continue as a going concern while maximising the return to stakeholders through the optimisation of debt and equity balance. The Company's overall strategy remains unchanged from prior year.

The capital structure of the Company consists of cash and cash equivalents, interest bearing liabilities and equity attributable to equity holders of the Company, comprising issued capital, reserves and retained earnings. Debt includes both long term and short term interest bearing liabilities.

### Gearing ratio

The Company reviews the capital structure on an ongoing basis. As part of this review, the management considers the cost of capital and the risks associated with each class of capital. The Company has a gearing ratio of 28% (2016: 62%).

The gearing ratio at the year end was computed as follows:

Debt (i)	12,800,455	12,662,837
Equity (ii)	24,701,611	7,616,059
<b>Total debt and equity</b>	<b>34%</b>	<b>62%</b>

(ii) Equity includes all capital and reserves of the Company.

### Significant accounting policies

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised, in respect of each class of financial asset, financial liability and equity instrument are disclosed in the accounting policies to the financial statements.

The Directors consider that the carrying amounts of financial assets and financial liabilities recognised in the financial statements approximate their fair values.

Categories of financial instruments		
Financial assets:		
- Amounts due from related parties	2,366,232	1,605,959
- Trade and other receivables	2,427,547	1,228,274
- Bank and cash	1,831,727	1,788,518
	<b>6,625,506</b>	<b>4,622,751</b>
Financial liabilities:		
- Amounts due to related parties	1,383,477	738,540
- Trade and other payables	7,338,396	3,898,200
- Bank overdraft	94,824	70,393
	<b>8,816,697</b>	<b>4,707,133</b>

### Financial risk management objectives

The Company's executive directors and management co-ordinates access to domestic markets and borrowings from related parties, monitors and manages the financial risks relating to the operations of the Company. These risks include market risk (including currency risk, fair value interest rate risk and price risk), credit risk, liquidity risk and cash flow interest rate risk.

The Company does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

### Market risk

The Company's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates. The Company does not enter into any derivative financial instruments to manage its exposure to interest rate and foreign currency risk, including forward foreign exchange contracts to hedge the exchange rate risk.

There has been no change to the Company's exposure to market risks or the manner in which it manages and measures the risk.

## Foreign currency risk management

The Company undertakes certain transactions denominated in foreign currencies. Hence, exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters as approved by the Board of Directors.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows.

United states dollar (\$)	9,154,085	3,727,062	19,269,015	19,981,226
Japanese yen (JPY)	-	-	46,645	42,675
South africa rand (ZAR)	35,673	1,936	88,006	90,993
Euro	50,826	-	56,832	39,949
GBP	-	-	6,240	2,798

## Interest rate sensitivity analysis

The interest rate risks sensitivity analysis is based on the assumption that changes in the market interest rates affect the interest income or expenses of variable interest financial instruments:

The tables below sets out the impact on current profit before taxation of an incremental 5% parallel fall or rise in all yield curves during the year:

At 31 December 2017			
Profit before tax	(270,359)	(283,877)	(256,841)
At 31 December 2016			
Profit before tax	(136,571)	(143,399)	(129,742)

## Interest rate risk management

The Company is exposed to interest rate risk arising on shareholders loans and loans from the banks for its working capital requirements.

The exposure to interest rate risk is evaluated regularly by management to align with interest rate views and defined risk appetite, by either positioning the statement of financial position or protecting interest expense through different interest rate cycles.

## Interest rate sensitivity analysis

The sensitivity has been determined based on the exposure to interest rates for non-derivative instruments at the end of the reporting period. For floating rate liabilities, the analysis is prepared assuming the amount of the liability outstanding at the end of the reporting period was outstanding for the whole year. A 5% increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

The Company's sensitivity to interest rates has increased during the current period mainly due to the increase in variable rate debt instruments.

## Credit risk management

Credit risk management refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. The Company is exposed to credit risk in respect of trade and other receivables. As at the financial period end the Company had trade receivables which were due from the Company's customers.

The Company's maximum exposure to credit risk is analysed below:

Amounts due from related parties	2,366,232	1,605,959
Bank and cash balances	1,831,727	1,788,518
Trade and other receivables	2,427,547	1,228,274
	<b>6,625,506</b>	<b>4,622,751</b>
The maximum exposure to credit risk for trade receivables at the reporting date by key customer sector was:		
Mining	3,916,140	5,595,447

Government and related entities	132,744	245,432
Domestic customers	213,596	250,959
Exports	364,767	597,838
The local authorities and water utilities	195,308	157,929
Industrial and related sectors	13,817	14,787
Agriculture and related sectors	5,151	4,774
	<b>4,841,523</b>	<b>6,867,166</b>

### Liquidity risk management

The Company manages liquidity risk by maintaining adequate reserves and banking facilities and by continuously monitoring forecast and actual cash flows and matching the maturity profile of financial assets and liabilities.

The following table below details the Company's remaining contractual maturity for its non-derivate financial assets and liabilities. The table has been drawn up based on the undiscounted contractual maturities of the financial assets and liabilities.

Financial liabilities					
- Trade and other payables	-	-	7,338,396	-	7,338,396
- Bank overdraft	-	94,824	-	-	94,824
- Amounts due to related parties	-	-	1,383,477	-	1,383,477
	-	94,824	8,721,873	-	8,816,697
Financial assets					
- Amounts due from related parties	-	-	2,366,232	-	2,366,232
- Loan due from related parties	-	-	-	2,797,701	2,797,701
- Trade and other receivables	-	-	2,427,547	-	2,427,547
- Bank and cash balances	1,831,727	-	-	-	1,831,727
	<b>1,831,727</b>	<b>-</b>	<b>4,793,779</b>	<b>2,797,701</b>	<b>9,423,207</b>

Period ended 31 December 2016

Financial liabilities					
- Trade and other payables	-	-	4,091,187	-	4,091,187
- Bank overdraft	-	70,393	-	-	70,393
- Amounts due to due related parties	-	-	-	738,540	738,540
	-	70,393	4,091,187	738,540	4,900,120
Financial assets					
- Amounts due from related parties	-	-	1,605,959	-	1,605,959
- Loan due from related parties	-	-	-	2,769,565	2,769,565
- Trade and other receivables	-	-	1,769,777	-	1,769,777
- Bank and cash balances	1,788,518	-	-	-	1,788,518
	<b>1,788,518</b>	<b>-</b>	<b>3,375,736</b>	<b>2,769,565</b>	<b>7,933,819</b>

## Period ended 31 December 2016

### Financial liabilities

- Trade and other payables	-	-	4,091,187	-	4,091,187
- Bank overdraft	-	70,393	-	-	70,393
- Amounts due to due related parties	-	-	-	738,540	738,540



	-	70,393	4,091,187	738,540	4,900,120
<b>Financial assets</b>					
- Amounts due from related parties	-	-	1,605,959	-	1,605,959
- Loan due from related parties	-	-	-	2,769,565	2,769,565
- Trade and other receivables	-	-	1,769,777	-	1,769,777
- Bank and cash balances	1,788,518	-	-	-	1,788,518
	1,788,518	-	3,375,736	2,769,565	7,933,819

## 29. Fair Value Measurements

The information set out below provides information about how the Company determines fair values of various financial assets and financial liabilities.

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities. This level includes listed equity securities and debt instruments on exchanges (for example, Lusaka Stock Exchange)."
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices). "
- Level 3 – inputs for the asset or liability that are not based on observable market data (Unobservable inputs). This level includes equity investments and debt instruments with Significant unobservable components."

This hierarchy requires the use of observable market data when available. The Company considers relevant and observable market prices in its valuations where possible.

Fair value of the Company's financial assets and financial liabilities that are measured at fair value on a recurring basis

There were no financial assets and liabilities that are measured at fair value on a recurring basis during the period.

Fair value of financial assets and financial liabilities that are not measured at fair value on a recurring basis (but fair value disclosures are required)

Except as detailed in the following table, the directors consider that the carrying amounts of financial assets and financial liabilities recognised in the financial statements approximate their fair values.

Financial assets				
Loans and receivables:				
- Amounts due from related parties	2,366,232	2,366,232	1,605,959	1,605,959
- Trade and other receivables	2,427,547	2,427,547	1,228,274	1,228,274
<b>Total</b>	<b>4,793,779</b>	<b>4,793,779</b>	<b>2,834,233</b>	<b>2,834,233</b>
Financial liabilities				
- Borrowings	12,800,455	12,800,455	12,592,444	12,592,444
- Trade and other payables	7,338,396	7,338,396	3,898,200	3,898,200
- Bank overdraft	94,824	94,824	70,393	70,393
<b>Total</b>	<b>20,233,675</b>	<b>20,233,675</b>	<b>16,561,037</b>	<b>16,561,037</b>

Financial assets				
Loans and receivables:				
- Amounts due from related parties	-	-	2,366,232	2,366,232
- Trade and other receivables	-	-	2,427,547	2,427,547
<b>Total</b>	-	-	<b>4,793,779</b>	<b>4,793,779</b>
Financial liabilities:				
Financial liabilities held at amortised cost:				
- Amounts due to related parties	-	-	1,383,477	1,383,477
- Trade and other payables	-	-	7,338,396	7,338,396
- Bank overdraft	-	-	94,824	94,824
<b>Total</b>	-	-	<b>8,816,697</b>	<b>8,816,697</b>

**Fair value hierarchy as at 31 December 2016**

	<b>Level 1 K'000</b>	<b>Level 2 K'000</b>	<b>Level 3 K'000</b>	<b>Total K'000</b>
Financial assets				
Loans and receivables:				
- Amounts due from related parties	-	-	1,605,959	1,605,959
- Trade and other receivables	-	-	1,769,777	1,769,777
<b>Total</b>	-	-	<b>3,375,736</b>	<b>3,375,736</b>
Financial liabilities:				
Financial liabilities held at amortised cost:				
- Amounts due to related parties	-	-	738,540	738,540
- Trade and other payables	-	-	3,898,200	3,898,200
- Bank overdraft	-	-	70,393	70,393
<b>Total</b>	-	-	<b>4,707,133</b>	<b>4,707,133</b>

The fair values of the financial assets and financial liabilities included in the level 3 category above have been determined in accordance with generally accepted pricing models based on a discounted cash flow analysis, with the most significant inputs being the discount rate that reflects the credit risk of counterparties.

### 30. Capital Commitments

	<b>2017 K'000</b>	<b>2016 K'000</b>
Authorised by the directors but not contracted for	8,450,607	6,530,505

The funds required to meet the capital commitments will be generated from borrowings and trading activities of the company

### 31. Contingent Liabilities

There were no known material contingent liabilities at 31 December 2017 and 31 December 2016.

### 32. Events after the Reporting Date

There have been no other material facts or circumstances that have occurred between the reporting date and the date of these financial statements that require disclosure in or adjustment to the financial statements.

# Five year financial record

for the year ended 31 December 2017

Income statement	Year ended 31 December 2017	Year ended 31 December 2016	Year ended 31 December 2015	Year ended 31 December 2014	Period ended 31 December 2013
					Restated
Revenue	7,424,850	8,237,828	6,425,737	4,317,698	2,362,386
(Loss) profit before taxation	(270,359)	(136,571)	19,595	572,636	259,581
Current taxation (credit)	615,927	1,445,211	868,882	(249,367)	188,471
Profit for the year	345,568	1,308,640	888,477	323,269	448,052
Statement of financial position					
Non current assets	50,508,288	23,893,065	18,358,156	11,344,727	7,856,678
Net current assets	(4,158,291)	(1,876,890)	415,766	1,385,818	1,894,560
Deferred liabilities	(8,048,077)	(1,937,610)	(1,847,305)	(1,743,379)	(1,483,987)
Borrowings	(11,291,554)	(11,150,318)	(9,341,755)	(5,502,406)	(3,486,820)
Capital grants and contributions	(2,308,755)	(1,312,188)	(1,301,377)	(1,263,804)	(906,678)
Net assets	24,701,611	7,616,059	6,283,485	4,220,956	3,873,753
Financed by:					
Share capital	2,825,118	2,825,118	2,825,118	1,655,000	1,655,000
Reserves	21,876,493	4,790,941	3,458,367	2,565,956	2,218,753
Shareholders' funds	24,701,611	7,616,059	6,283,485	4,220,956	3,873,753
Ratios					
Net profit margin	5%	15.9%	13.5%	7%	19%
Return on Capital employed (ROCE)	0%	1%	0.4%	5%	3%
Current ratio	0.6	0.8	1.1	1.5	2.0
Quick ratio	0.6	0.6	0.96	1.37	1.76
Interest cover	0.32	0.58	1.39	12.54	17.05
Debt/equity ratio	78%	172%	178%	190%	150%
Gearing ratio	34%	62%	64%	58%	50%
Debtor days	119	78	114	122	183
Asset turnover	0.16	0.37	0.34	0.32	0.22

Who We Are

Our Business Strategy

Governance

Value Creation

Performance Reports

Creating Value Through Asset Creation

Environmental Sustainability

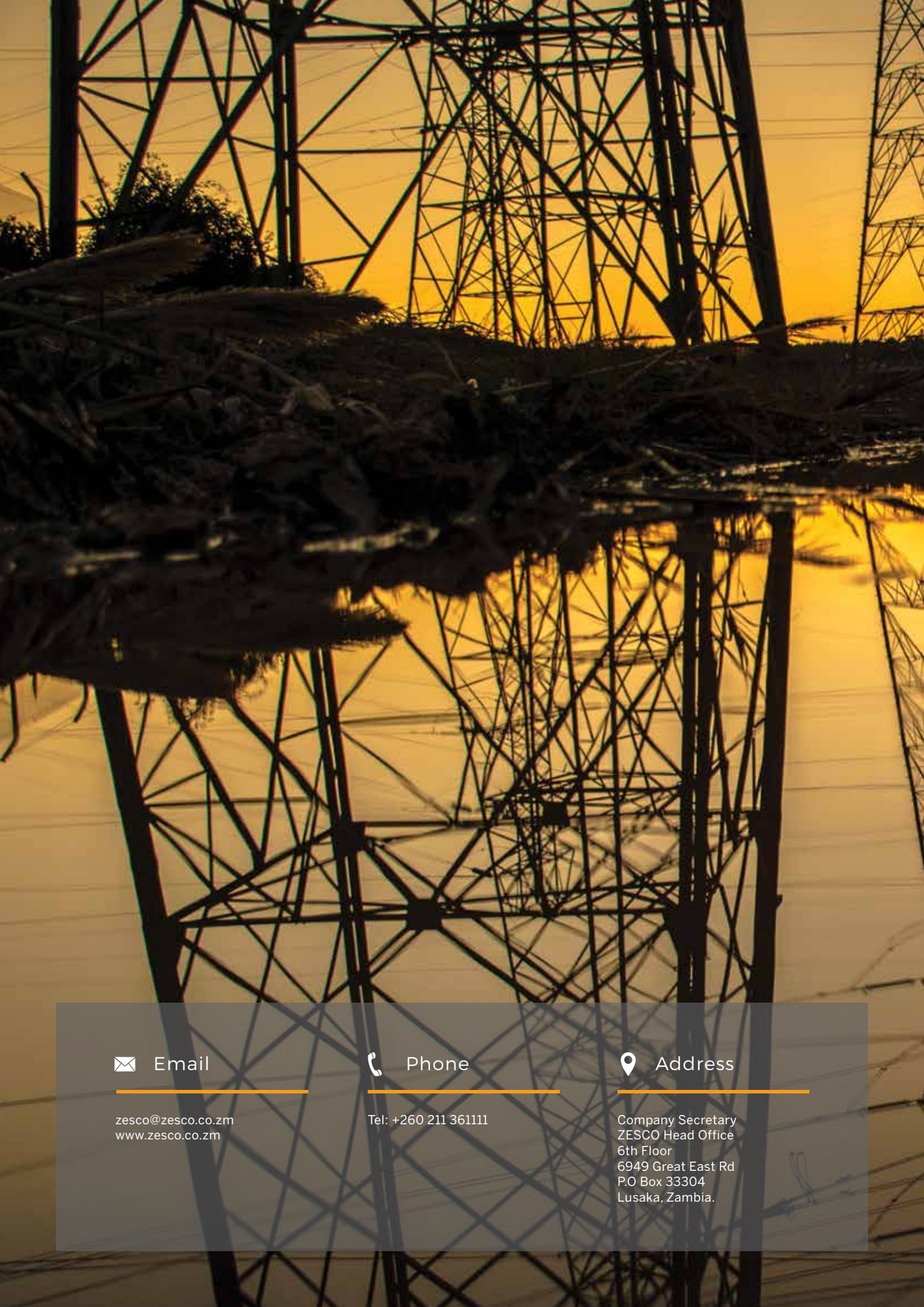
Financial Statements




# Detailed operating statement


REVENUE	7,424,850	8,237,828
COST OF SALES	(4,569,026)	(3,887,866)
GROSS PROFIT	2,855,824	4,349,962
Other Income	461,901	279,644
OPERATING EXPENSES		
Provision for doubtful debts	(4,732)	(2,264,847)
Depreciation and amortisation	(786,147)	(466,318)
Remuneration - Represented	(460,847)	(405,156)
Remuneration - Non Represented	(455,072)	(394,636)
Pension, gratuity and GLA Provisions	(457,860)	(276,281)
Administration	(218,104)	(273,644)
Other operating expenses	(152,697)	(190,705)
External services	(125,440)	(126,650)
Pension Payments (LASF, NAPSA, ZSIC)	(87,761)	(80,180)
Transport costs	(95,407)	(68,338)
Travel and accommodation	(86,050)	(59,118)
Insurance costs	(42,041)	(42,960)
Maintenance of buildings and premises	(70,240)	(42,784)
Maintenance of tools, machinery and equipment	(46,326)	(34,768)
Training costs	(26,563)	(18,773)
Directors costs	(1,504)	(3,097)
Stock adjustments	(6,511)	(4,972)
Audit fees	(2,410)	(2,107)
Net Exchange (losses)/gains	(63,472)	313,588
TOTAL OPERATING EXPENSES	(3,189,182)	(4,441,744)
EARNINGS BEFORE INTEREST AND TAX	128,544	187,862
FINANCE COSTS	(398,903)	(324,433)
LOSS BEFORE TAX	(270,359)	(136,571)






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