



# 2018 Integrated Report

## **Fifth Integrated report**

Another step forward in promoting  
transparency in corporate reporting

# About this Report

The information in this report has been selected to provide stakeholders with an overview of our strategy, business model, performance and governance practices, as well as our risks and opportunities.

The selection of matters to be covered in this report was determined based on whether the matter could substantially affect our ability to create value. It was informed by inputs from our stakeholders within and outside Zesco Limited and was further refined through engagement with executive management and the Board of directors.

## Report Approval

The Board acknowledges its responsibility to ensure the integrity of this report and confirm that this integrated annual report addresses all material matters and provides a balanced overview of the Company and its prospects. The Board has therefore approved the 2018 Integrated Report for publication.



**Dr. Mbita Chitala**  
Chairman



**Mr. Victor M Mundende**  
Managing Director



**Mr. Saidi Chimya**  
Finance Director



**Mr. McRobby V. Chiwale**  
Company Secretary

## Integrated Reporting Team

**Mr. McRobby V. Chiwale**  
Company Secretary

**Mr Brown Zimba**  
Snr Manager Accounting Services

**Fitzpatrick Kapepe**  
Manager Budgets

**Venansio Phiri**  
Management Accountant Financial Reporting

**Saviour Mwila**  
Budget Analyst

**Kentric Mwila**  
Senior Accountant Transmission

**Dalitso Mwanza**  
Public Relations Officer

# Contents

## Strategic Report 4

Who We Are	6
Group Highlights	7
Chairman's Report	8
Managing Director's Statement	10
Our Strategy	12
Key Performance Indicators Against Strategic Objectives	15
Our Business Model	18
Stakeholder Engagement	22
Finance Director's Statement	30

## Corporate Governance 34

Leadership and Accountability	36
Risk Management	44

## Value through asset creation 50

Generation	52
Transmission	56
Distribution	57
Human Capital Development	60
Social and Relationship Investments	63
Operational Sustainability	64
Environmental Sustainability	68
Our Industry	70

## Financial Statements 72

Report of the Directors	74
Statement of Responsibility for the Annual Consolidated Financial Statements	76
Independent Auditor's Report	77
Consolidated Statement of Profit or Loss and other Comprehensive Income	79
Consolidated Statement of Financial Position	80
Consolidated Statement of Changes in Equity	82
Consolidated Statement of Cash Flows	83
Notes to the Consolidated Financial Statements	85

“ ZESCO will remain  
focused on  
growing its customer  
base and exploring new  
markets in the region.”

Dr. Mbita C. Chitala  
Board Chairperson

Design and layout: Dalitso Mwanza [demwanza@zesco.co.zm](mailto:demwanza@zesco.co.zm)

Paper: Books printed full colour cover on 250gsm matt +matt laminated, text on 135gsm matt paper.Perfect bound.Size: A4

Photo and editor: Dalitso Mwanza

All images are ZESCO Limited property and should not be used for other purposes without the consent of the Public Relations dept. of ZESCO Limited.

# Strategic Report

<b>Who We Are</b>	<b>6</b>
<b>Group Highlights</b>	<b>7</b>
<b>Chairman's Report</b>	<b>8</b>
<b>Managing Director's Statement</b>	<b>10</b>
<b>Our Strategy</b>	<b>12</b>
<b>Key Performance Indicators Against Strategic Objectives</b>	<b>15</b>
<b>Our Business Model</b>	<b>18</b>
<b>The Capitals Employed to Create Value</b>	<b>20</b>
<b>Stakeholder Engagement</b>	<b>22</b>
<b>Stakeholder Engagement Methods</b>	<b>28</b>
<b>Finance Director's Statement</b>	<b>30</b>
<b>Group Financial Overview</b>	<b>30</b>
<b>Financial Overview</b>	<b>30</b>







# Who We Are

## WHAT WE ASPIRE TO BE

# Our Vision

‘To be the hub of electricity trading in the region by 2025’

## WHO WE ARE. WHAT WE DO

# Our Mission

Making it easy for people to live a better life.

# Our 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.

## Open Minded

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.



# Group Highlights

## Group Highlights

## Operational

### Group Revenue

**K 9.5 bn**

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

2017

K7.4 bn

28% ▲

### Net Profit Margin

**14%**

The residual revenue after cost of sales, operating expenses, finance costs, taxes and any dividends are deducted from total revenue expresses as a percentage of total revenue.

2017

10%

36% ▲

### Generation

**10,847 GWh**

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

2017

12, 221 GWh

8% ▲

### Operating Loss

**K 2.7 bn**

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

2017

K0.1 bn

4k% ▼

### Debt Level

**K 22.2 bn**

Measures the organization's long term debt

2017

K13.5bn

65% ▲

### No of Customers

**957,756**

A measure of Customer growth

2017

901, 047

8% ▲

### Net Assets

**K 22.9 bn**

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

2017

K24.1bn

5% ▼

### Return on Capital Employed

**2 %**

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

2017

1.3 %

47% ▲

### Customer Employee Ratio

**139**

The total number of employees as a fraction of total number of customers during the year.

2017

132

5% ▲

### Current Ratio

**0.47 x**

A measure of current assets versus current liabilities.

2017

0.66

29% ▼

### EBITDA Margin

**14%**

Measures the ability to meet interest expenses on outstanding debt.

2017

18%

4% ▼

### Head Count (Annual Average)

**6, 914**

The average number of employees during the year.

2017

6, 817

1% ▲

# Chairman's Report



**“ ZESCO will remain focused on growing its customer base and exploring new markets in the neighboring countries.”**

# 13%

In 2018 the improved supply of electricity was supported by both own generation and IPPs representing a 13 percent increase...

## Dear Shareholders and Stakeholders

I have always cherished the privilege of taking on the chairmanship of ZESCO Limited given the role this wonderful company plays in the lives of the ordinary people. In my long career in public service, I have come to believe that challenges build character and resilience. As a company we have faced many obstacles during my tenure that could have wrecked us. Like most companies, we will all find ourselves having to face challenges but what matters is how we come out of these battles.

There are a number of challenging issues my board is resolving by working through discussions with the executive team such as climate change, suppressed tariffs and legacy electricity debt from the Independent Power Producers (IPPs). I am confident that we will overcome our temporal obstacles and build a more resilient future for ZESCO beyond this generation.

It is evident that the external environment is constantly evolving and we must be prepared to respond. Our role is to provide a service to the people and excitingly so is to meet their needs as we etch our existence in their day to day lives. For homes, we are diligently serving about nine hundred and sixty thousand customers and other Industrial and commercial sectors.

At the core of our activities we have highly trusted engineers, technologists, technicians and artisans, a unique asset we are using to fulfil our customers energy needs.

## The Global Economy

It is an undeniable fact that what happens in the global economy has a direct influence on our performance considering that there is a



seamless flow of electricity trade within the SADC region.

The global economy has not grown at records that inspire confidence and contribute to alleviating poverty. In 2018 the economy grew at 3.7 percent compared to 3.5 percent in 2017 which is still lower than the 5.2 percent growth recorded in 2007. Growth in advanced economies was estimated at 2.3 percent mainly driven by higher economic activities in the United States of America while in other advanced economies there was slowed activity. However, there was a slight decline in growth of about 4.6 percent in emerging and developing economies compared to the previous year of 4.7 percent.

## Performance of the Domestic Economy

Our local economy grew at the same level as the global economy to 3.7 percent, slightly higher than the growth of 3.5 percent recorded in 2017. The growth of the economy was on account of good performance in the mining, electricity, and information and communication sectors. However, trending the economic growth to 2007, there has been a decline in economic activity evidenced by the economic growth of 5.7 percent in 2007. The buoyant 7.6 percent growth in copper production had a positive effect on the electricity consumption that increased by 10.7 percent.

## Our Contribution to the Domestic Economy

In 2018 the improved supply of electricity was supported by both own generation of 10, 847 GWh and IPPs of 4,444 GWh representing a 13 percent increase from the previous year. The consumption increased to 14,169 GWh from 13, 882 GWh in 2017.

The mines have always been our largest electricity consumer and in 2018 the sector consumed 51.7 percent of the energy sold, followed by the services sector at 33.5 percent.

Other than positive enterprise value, stable and reliable supply supports our customers to plan their activities in time and in 2018 supported other sectors such as manufacturing that grew by 4.1 percent.

## Our Human Capital

We have faced numerous challenging external circumstances but every cloud has a silver lining and we have drawn some positives from them. Our people are at the core of resolving all the challenges faced now and those that may be encountered in the future.

It is not machines that are the most valuable assets but people and this has been my motto that saw me through in public service. My board has always respected our colleagues working in various roles in this great company and without them we would not create the desired value. In the pursuit of recovery in our fortunes we may in the short term hurt our people through well-meant decisions such as no salary increments, suspension of staff in-house loans and excruciating austerity measures. These are short-term measures predestined to ring-fence the sustainability of our company.

As a chairman of the board, I want my board to be people-centric, to get closer to our human capital. During my tenure, I intend to promote the idea of having board meetings in various locations as this will give us opportunities to listen more to what people are saying in the operational areas. My board is eager to listen to our colleagues talking about what they have achieved and what they care about despite the challenges they are facing.

## ZESCO's Transformation

My board is in the process of implementing measures that would address the challenges facing the corporation. The following are some of the measures we believe will mitigate these:

1. Refinancing of ZESCO debt to Independent Power Producers and settlement of arrears to suppliers. It is incontestable that this issue is posing both an operational and strategic risk as it is denting the structure of the corporation's balance sheet;
2. Review of staff establishment to align with industry best practice. The business is growing, while there are changes in the external environment which necessitate dynamic strategies that are suitable to meet this business environment, and this can only be supported by a perfectly knitted staff structure;
3. Review of conditions of service, re-enforced with appropriate monitoring tools to achieve efficiency gains. We have adopted the use of a performance management model called Balanced Scorecard that not only focuses on financial measurements but also on all other perspectives of the business;
4. Review of tariffs to achieve efficiency, we are alive to the fragility of the domestic tariffs to foreign exchange currency fluctuations as any depreciation of the kwacha against the dollar dilutes the tariff in dollar terms; and
5. Review of tariffs paid by mines to cost reflectivity.

It is the board's considered view that the success of the transformation program is premised on the transformation of ZESCO into autonomous business entities for generation, transmission and distribution.

## Outlook and Challenges

The environment under which we operate is expected to remain challenging with the continued uncertainty surrounding cost reflective tariffs, climate change and depressed global economic activity. As we pursue balance sheet restructuring measures we are cognizant to negative outcomes of the debt refinance, such as increased finance costs going forward.

ZESCO will remain focused on growing its customer base and exploring new markets in the region. We will continue to improve our corporate governance and internal processes to address risk and compliance. I must hasten to say that as a board we are fortunate to have a dedicated management team that remains focused and committed to our vision and the execution of our strategy. In this regard I would like to extend my thanks and appreciation to my colleagues on the Board, the management team and staff for their continued support, without whose support, I do not see how possible successes could have been scored.


The year ahead will no doubt be another challenging one, but we are all equal to the task and will leverage on our valued six capitals to survive.



**Dr. Mbita C. Chitala**

Board Chairperson

# Managing Director's Statement



**“Despite challenges being inevitable and complex, it is at the behest of our skilled employees to fully commit themselves to the strategic initiatives as we work as a team to create value.”**

---

## 3%

In 2018 our human capital grew by 3%

### Dear Shareholders and Stakeholders

2018 was a challenging year in many aspects, however, relative to 2017 it was much of a relief as the corporation saw the expiration of the Karpowership contract on 31 March 2018. The cost of emergency power from Karpowership (Mozambique) was way above the average cost of electricity from the local Independent Power Producers (IPPs). The highlight of 2018 in revenue terms, was a better year than 2017.

Our manufactured capital was revalued upwards in 2017 and changed the structure of our balance sheet for the better. This normalized the Debt to Equity ratio by recognizing our assets at their fair value as opposed to previous periods when the asset values were suppressed. The downside of the revaluation exercise was that in 2018, depreciation increased by 135% and pressurised the Income Statement.

Our targeted income in 2018 was K10.78 billion while the actual was K9.53 billion, which was way better than the 2017 revenue of K7.42 billion. In following through the dictates of our strategic initiatives, we managed to have over fifty-six thousand new customers connected to the national grid and increase sales volume by 2%.



ZESCO's historical and future success is grounded in our collective commitment to the agreed values. These values include love, integrity, commitment and open to ideas. At the foundation of these values is integrity. We are committed as an organisation to the highest ethical standards and compliance with applicable laws, rules and regulations. These values are in constant interaction with our human capital. In 2018 our human capital grew by 3%:

Our debt is mostly procured in foreign currency, hence vulnerable to exchange and interest fluctuations. The 20% depreciation of the kwacha against the dollar exacerbated the loss as the exchange losses on revaluation of the liabilities increased. The implementation of IFRS 9 on financial instruments compounded the loss, we had to impair trade and other receivables in full compliance with the accounting standard. The cost of local power purchases increased by 42% partially due to increased volumes and depreciation of the kwacha. During the year, the IPPs we traded with are Maamba Collieries Limited, Ndola Energy and Itezhi – Tezhi Power Corporation Limited whose average cost of power exceeds ZESCO's selling price. My management team is working around the clock to find how best this tariff issue can be resolved; it has for a long time threatened the sustainability of the corporation. We have to leverage on our social and relationship capital to close off this legacy problem and we have had series of discussions with key stakeholders around the non-cost reflective tariffs. The lack of business friendly tariffs cannot be over-emphasized as it breeds; power deficits as no additional investment is pooled in the sector, poor state of infrastructure as liquidity challenges set in and system losses.

During the year, there were no disbursements from the government towards the dismantling of the arrears of emergency power purchases while in 2017 we received K368.5 million. In our books we accrue for expected receipts from Government as receivables and these are amortized to income statement to match with the cost of emergency power purchases.

In pursuit of sustaining our revenue, we launched the National Call Centre along Kabelanga Road and temporarily employed 100 students from NIPA and Evelyn Hone colleges as call centre officers. This was also done to improve customer experience and bring our customers closer. In strengthening our contributions to society we leveraged on Social and Relationship capital through making donations worth K5.8 million towards events such as traditional ceremonies and local schools support activities.

Due to changes in the external environment that have adversely impacted our business, my management team with the support of the Board had the staff electricity rebate reviewed downwards, suspended all salary increments, in-house loans, non-critical local and foreign travel and holding of meetings in third party paid for venues such as hotels and conference facilities.

## Balance Sheet Review

K1.4 billion finance was raised from debt and K465 million from capital grants and contributions. During the year we had a capex spend of K3,89 billion cutting across the value chain. The following notable projects were completed during the year:

1. The establishment of a new bulk supply substation in the Lusaka South Multi-Facility Economic Zone (LSMFEZ). This

is a USD 34 million investment that will also facilitate for the connection of two solar PV plants that are under construction by Ngonye and Bangweulu Power Companies with an aggregate capacity of just under 80 MW.

2. A USD 250 million Sinoma (Mphande) cement plant which is a private owned investment started its commercial operations in August, we spent USD 8.2 million to connect supply from the Lusaka MFEZ substation.

3. The USD 100 million investment of the Kafue Town – Muzuma - Victoria Falls 220kV transmission line upgrade to 330kV jointly funded by the World Bank, EIB and ZESCO.

## Outlook

Despite challenges being inevitable and complex, it is at the behest of our skilled employees to fully commit themselves to the strategic initiatives as we work as a team to create value. Looking into the future, we are optimistic that the tariff application on the domestic customers will be considered and that the IPP tariff through the help of our shareholder will be reviewed. I retaliate the need to have cost reflective tariffs as this will help in relieving liquidity pressures and help us serve our esteemed customers diligently.

In addition, the construction of the Chama – Chipata - Lundazi 132kV transmission line also commenced and is anticipated to increase exports to Malawi and eliminate diesel generation costs once Chama and Lundazi are connected to the national grid. The upgrade of mini-hydro stations continued and during the year Musonda Falls power station was commissioned after being upgraded to 10 MW from the initial installed capacity of 5MW.

## Conclusion

In summary 2018 has been a very difficult year in terms of the external environment and our key outputs. Our strategy remains clear and our direction towards the customer is unmoved. We are beginning to see success in doing what we said we would do in the midst of a disruptive and volatile external environment. We are more than ready to enter 2019 with significant momentum and I see the following year as a gateway to the future for ZESCO as how we react in times of adversity shapes the future.



**Mr Victor M. Mundende**

Managing Director

# Our Strategy

## “Focusing on the strategic areas of the company”

ZESCO identified four strategic focus areas or strategic themes that will enable it deliver its promise to customers and subsequently lead to the achievement of its vision. The strategic focus areas, together with their respective strategic results include:

Strategic Focus Area	Strategic Result
<b>Strengthening Our Core Business</b> <p>The focus is to increase the generation capacity through internal development in renewal energy and third-party investments into generation mix technologies and development of hydro potential plants that fit into the vision.</p> <p>The medium to long-term generation mix will include renewable energy and other sources. This initiative will improve utilization of installed capacity and management of water resources.</p> <p>Local and Regional Demand of power is growing exponentially. To ensure we continue satisfying our customers and improve Return on Investments for shareholders, we are rehabilitating, reinforcing and expanding our transmission and distribution network systems.</p> <p>This focus area translates to the following strategic objectives or key result areas;</p> <p>Performance measurements</p> <ul style="list-style-type: none"><li>● Improve Financial Performance</li><li>● Increase Revenues</li><li>● Reduce Losses</li><li>● Improve Quality of Supply</li><li>● Improve Generation Mix</li><li>● Strengthen Partnerships</li><li>● Increase Safety</li><li>● Improve Staff Knowledge &amp; Skills</li></ul>	<b>Our operations reliably deliver electricity to local and regional markets.</b>



## Strategic Focus Area

### Delivering Value to Our Customers

We at ZESCO have an obligation to ensure that our customers have electricity that meets their needs. This requires us to deploy systems and put in place specific measures to ensure that we are reducing the turnaround times for new connections, fault resolution, and customer queries. Our initiative to deploy an integrated Distribution Management System (DMS), Outage Management System (OMS), Mobile Workforce Management System (MWFMS), Call Center Interactive Voice Response (CCIVR), and Geographical Information System (GIS) will enable us serve our customers effectively and efficiently.

Convenience of our customers remain our top priority. We will continue utilising online technologies to provide self-service platforms for applications, payments and inquiries to enrich customer experience. This will redefine how customers interact with us in line with current trends. Having a wide range of customers with varying needs requires us to be innovative in providing fit for purpose solutions.

Our close engagement with customers has enabled us to come up with innovative solutions such as Load Management Advisory Services to reduce electricity wastage and Flexi Pay to promote easy access to services. We will continue working closely with our customers to enhance their experience through flexible solutions.

This focus area has translated to the following strategic objectives:

**Improve Response to Customers** - This means responding to customer needs whenever they occur with speed and innovation. It entails deploying systems and putting in place specific measures to ensure that we improve the turnaround times for customer issue resolutions.

**Easily Get Services** - This means that customers are receiving services conveniently.

**Affordable Price** - This entails that the price that we offer our customers for our various services is within their ability to pay. It includes packaging our services in a way that allows our customers to afford them.

**Increase Value Added Services** - This entails the provision of Demand Side Management consultancy services and utilization of technologies with integrated self-service features that re-define how customers interact with us, in order to enhance customer experience. It includes the provision of the online platforms that facilitates customer interaction such as, mobile online payments and inquiries, flexi-pay methods and various one-stop shop pay points.

## Strategic Result

### Customers have electricity that meets their needs.

## Strategic Focus Area

### Enhancing the use of Innovative Technology

Emerging trends in the Electricity Supply Industry are focusing more on Monitoring, Control, Electricity Electronics, Communication and Information Technologies. These technologies provide opportunities for Electricity Companies to deploy state of the art solutions across the value chain of the business to guarantee improved service delivery.

To become the hub of electricity trading within the Region by 2025, the company will deploy various technologies across its value chain to support its core business activities and deliver end-to-end solutions that meet stakeholder needs. This will include the integration of technologies to enhance business processes to increase productivity whilst achieving a paperless agenda. It further includes better network management using smart grid applications (Smart Metering, SCADA, etc.), network modelling and analysis tools and Wide-Area Monitoring, Protection, Automation and Control Systems (WAMPAC) to improve grid monitoring, control, planning, operation, maintenance and electricity trading.

Through its digital capabilities, ZESCO will work to benefit the communities through the implementation of initiatives that enhance economic development partnerships and empowerment. This will be a revolutionary way to integrate the community into the business.

**This focus area translates to strategic objectives or key result areas;**

**Increase Access to Services** - This entails making our broadband easily available to internet providers and getting the community to offer customer facing services such as extended vending gateway.

**Strengthen Community Integration** - This entails taking advantage of technology to implement initiatives that enhance the economic development of the communities where we operate i.e. integrating the community in our business.

**Improve Network Management** - This entails enhancement of our power grid using technologies such as Wide-Area Monitoring, Protection, Automation and Control Systems (WAMPAC) to improve grid planning, operation, maintenance and electricity trading. It includes the full utilization of the data communication capabilities of our grid.

**Improve the Use of Technology** - This means application of technological tools to enhance business processes and deliver effective and efficient services across the value chain.

### Unlocking Value of FibreCom

ZESCO currently has excess capacity on its telecommunications network and has therefore started operating commercial telecommunications services branded FibreCom. The company has taken advantage of having the widest coverage of fibre across the country offering a high speed backbone. This optical fibre network has been implemented aerially on the high voltage power lines. The business offered by FibreCom is mainly in the wholesale category by carrying bulk traffic mainly for other telecommunications operators (including Internet service providers) and large corporate entities.

## Strategic Result

**We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**

**Our business offers affordable access to ICT for improved standard of living in Zambia**



# Key Performance Indicators Against Strategic Objectives

Our Key Performance Indicators (KPIs) help the Board and executive management assess performance against our Group Priorities

KPI	Description	Period	Target	Actual	Progress
Operating Profit Margin	A measure of residual income after cost of sales and operating expenses. It excludes non-cash items such as unrealised exchange gains or losses, taxation payable or receivable and amortisation	2018	10%	21%	Achieved
		2017	10%	28%	Achieved
Revenue	The value of total energy sales (K '000)	2018	10,781	9,535	Not achieved
		2017	10,544	7,425	Not achieved
Liquidity	The proportion of the value of current assets relative to current liabilities	2018	80%	50%	Not achieved
		2017	80%	66%	Not achieved
Debt to Equity	The proportion of debt financing assets relative to shareholder's equity	2018	170%	70%	Achieved
		2017	170%	92%	Achieved
Customer Connection Average Rate (CCAR)	The ratio of the average age of connected jobs (Standard) in a specified period compared to the average age of the pending paid-up jobs at the end of a period	2018	30.00	10.00	Achieved
		2017	30.00	6.00	Achieved
Complaint Resolution Rate (CRR)	The average age of resolved faults and complaints to the average age of the total faults and complaints in a particular period	2018	3%	4%	Achieved
		2017	3%	7%	Achieved
Energy Sold	The volumes of electric energy that is sold in a given period, consisting of energy to distribution, exports, CEC, mines and other bulk customers (GWh)	2018	15,394	14,169	Not achieved
		2017	14,362	13,882	Not achieved
Non-compliance cases (Annual average)	The number of non-compliance cases reported on environment and safety in a month	2018	0	44	Not achieved
		2017	0	199	Not achieved
No of incidences (Annual average)	Number of injuries, fatalities and dangerous occurrences in a month	2018	4	9	Not achieved
		2017	4	12	Not achieved
Labour Productivity	The number of staff relative to the number of customers	2018	150	137	Achieved
		2017	150	133	Achieved

# Customer focused

**Customers remain the main reason we are still in business. Our growth is extremely essential as part of our core values is making it easy for people to live a better life. The more we connect our customers, the more revenue we make, the more efficient they become and live an improved and better life.**



# 15,375 CFLs and 685 tubular LED installations

We have not only ended at giving access to electricity but also the experience thereafter. Our dedicated teams have come up with many measures to ensure the customer has the best after sales services and also have a well manageable bill.

Our domestic customer base grew by 6% for the previous year's 901,047 customer base.

## **Demand Side Management (DSM)**

DSM concentrated on energy efficiency through the distribution of CFLs and Tubular LED retrofits, Smart metering pilot project monitoring, Power quality measurement and monitoring and data clean-up activities in CMS. In addition, Load profile analysis and Load factor data base creation for distribution substations (33 & 11kV) compilation started. A desktop analysis was also done for MD customers whose consumption is between 99kVA and 40kVA, low power factor surcharge patch-up sensitizations and simulated dummy bill sensitizations were carried out in Lusaka and Southern divisions. Portable power quality meters were installed at Lafarge Cement Ndola plant and Garden Court Hotel following the Customer's complaint on the quality of power being supplied. In 4th quarter, the Iskraemeco pilot project kicked off and 500 smart meters were installed and are being monitored.

15,375 Philips Compact Florescent Lamps (CFLs) were distributed in 2018. Some CFLs were distributed to ZESCO employees, the general public at the Northern Province Tourism and Investment Expo, Zambia International Trade fair in Ndola, at the media workshop organized by ZESCO in Kitwe, at Livingstone Agriculture & commercial shows and during the World environment day in Lusaka.

In the 4th quarter of 2018, a total of 682 tubular LED installation or retrofits were done at ZESCO Training Centre, Kalewa Baracks, Chilanga S/S, Chililabombwe and Chingola Customer Service Centres, Itezhi tezhi station, Multi Facility Economic Zone and ZESCO staff houses for Transmission in Zambezi. This resulted in total calculated savings of 42.284kW.

On LED distribution, a total of 2,770 LED lamps were installed at

Customer Services week Expo, State House, State Lodge, in Kabwe, in ZESCO offices and substations at Lumwana mine, Lufwanyama and Chambishi, EIZ symposium and in Mongu (500 lamps) during the Kuomboka Ceremony resulting in calculated savings amounting to over 100kW.

## **Energy Efficiency Sensitisation & Power Factor Verification**

Low power factor surcharge sensitizations and dummy bill delivery was concluded in both Lusaka and Southern divisions. A total of 150 hard copy dummy bills were delivered to big clients in SD-Southern and SD-Central Regions, whilst 24 were sent via email to customers in SD-Eastern and SD-Western Regions with the exception of 5 customers that are not registered on e-billing.

However, further sensitization works were done at Amatheon Agric in Mumbwa.

## **Smart Metering Pilot Project**

This project kicked off and a total of 500 meters have been installed on various sites. These locations include maximum demand customers, Bulk supply points and commercial postpaid customers (mobile cellular Towers).

## **Power Quality (PQ)**

During the period under review, no pre installation assessments were carried out. Monitoring of PQMS continued and all PQ recorders connected are being remotely monitored. 65 New Power Quality meters have since been procured and delivered. Substations where these PQ meters will be installed have already been identified in consultation with various stakeholders. Installation is expected to commence in the first quarter of 2019.

Since the project commencement in 2017, Eight (8) PQ analyzers have been connected and are being monitored remotely.



# Our Business Model



## Inputs

Being a 98% hydro based power generator, our major inputs are the water bodies around the country with the major hydro plants in the Southern part of the country. Our well qualified and trained staff run and manage these stations effectively.



## Activities

Using our inputs, we ensure that safe and reliable energy is Generated, Transmitted and Distributed. This done with utmost care to the environment and in compliance with regulatory requirements.

## Generation



### Own Generation

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

71%

### Subsidiaries & Joint Ventures

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

## Transmission



### Independent Power Producers (IPPs)

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

28%

### Imports

- Southern Africa Power Pool (SAPP)

1%

Represents total generation [14,169 GWh fed into the Grid



## Outputs

Reliable and safe electricity for the country and to be hub for electricity trading in the region whilst maintaining a well-trained and skilled workforce to manage the complex infrastructure.



## Impact

People living a better life with reliable power supply. Improved economic activities. Less use of traditional means of energy hence reduction in environmental degradation.



9%

### Exports

- Southern Africa Power Pool (SAPP)



47%

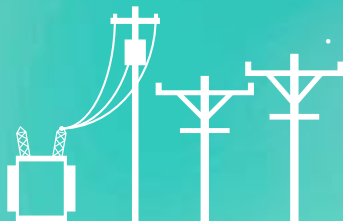
### Mines

- CEC, Kalumbila, Kansanshi,
- ZCCZ, Lumwana and others



44%

### Distribution, Supply and Customer & Commercial Services

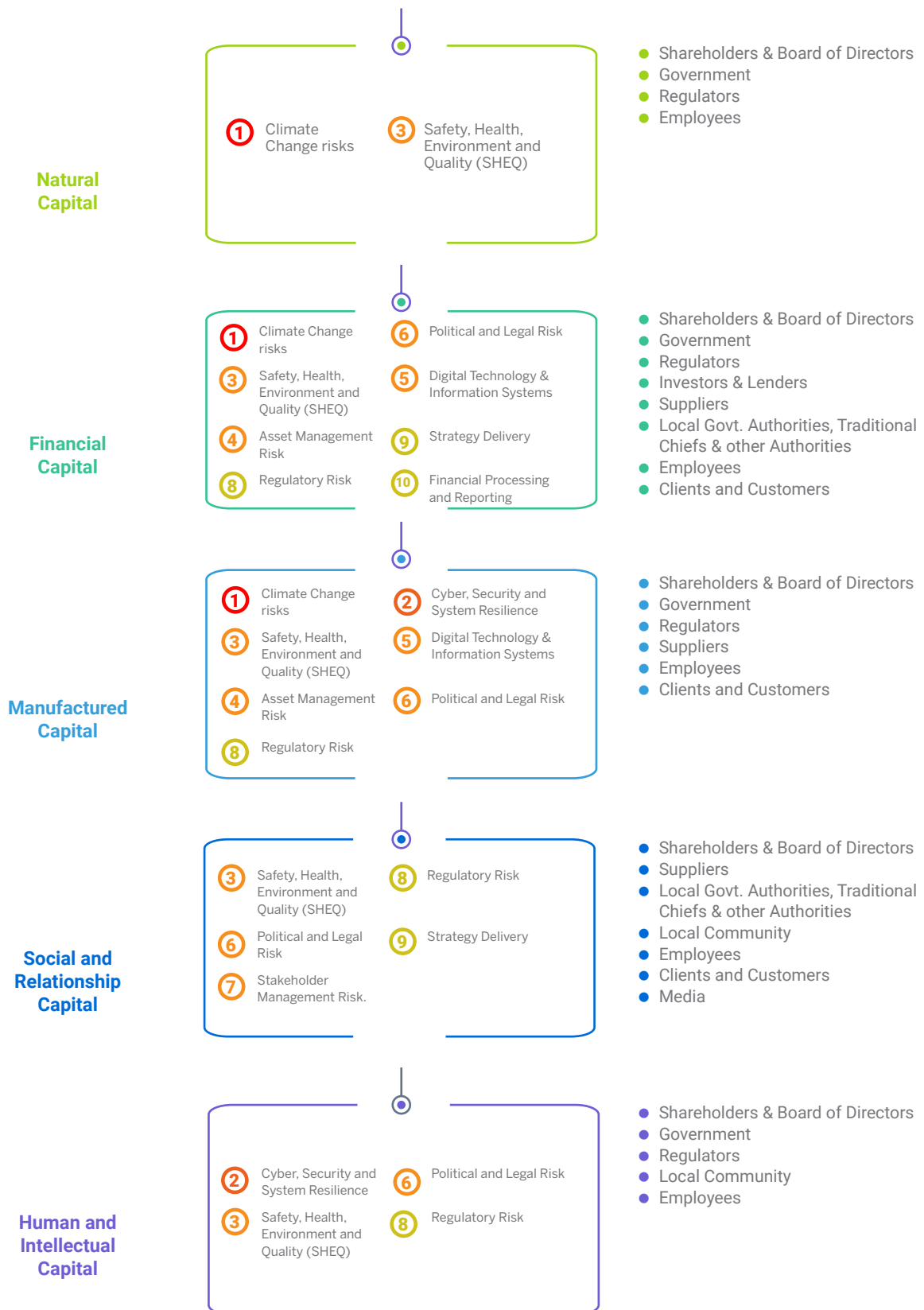


- Residential 19%
- Maximum Demand 18%
- Commercial 3%
- Agriculture 2%
- Social 2%

Represents generated power transmitted and distributed into the Grid

Figures in ZMW		2018	2017
<b>Regulation</b>			
	<b>Government</b>	<b>106,444</b>	<b>88,826</b>
	ERB fees	78,636	51,874
	Other subscriptions/licences	27,808	36,952
<b>Contribution to Treasury</b>			
	<b>Employee taxes (PAYE)</b>	<b>244,059</b>	<b>234,328</b>
<b>Community Management</b>			
	<b>Donations</b>	<b>5,816</b>	<b>3,434</b>
<b>Overheads and Capital Expenditure</b>			
	<b>Suppliers &amp; Contractors</b>	<b>23,772,736</b>	<b>10,732,431</b>
	Operational expenditure	10,217,208	6,724,310
	Capex expenditure (KGL inclusive)	13,555,528	4,008,121
<b>Providers of Capital</b>			
	<b>Finance Cost</b>	<b>554,735</b>	<b>439,909</b>
<b>Focus on People</b>			
	<b>Employee Training</b>	<b>18,205</b>	<b>26,563</b>

# The Capitals Employed to Create Value





- 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 the use of Innovative Technology - **We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**
- Unlocking Value of FibreCom - **Our business offers affordable access to ICT for improved standard of living in Zambia**

- Delivering Value to Our Customers - **Customers have electricity that meets their needs.**
- Enhancing the use of Innovative Technology - **We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**
- Unlocking Value of FibreCom - **Our business offers affordable access to ICT for improved standard of living in Zambia**

- Delivering Value to Our Customers - **Customers have electricity that meets their needs.**
- Enhancing the use of Innovative Technology - **We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**
- Unlocking Value of FibreCom - **Our business offers affordable access to ICT for improved standard of living in Zambia**

- Delivering Value to Our Customers - **Customers have electricity that meets their needs.**
- Enhancing the use of Innovative Technology - **We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**
- Unlocking Value of FibreCom - **Our business offers affordable access to ICT for improved standard of living in Zambia**

- Delivering Value to Our Customers - **Customers have electricity that meets their needs.**
- Enhancing the use of Innovative Technology - **We are using our digital capabilities to improve our operations and benefit the communities in which we operate.**
- Unlocking Value of FibreCom - **Our business offers affordable access to ICT for improved standard of living in Zambia**

# Stakeholder Engagement

Delivering value to our customers by ensuring that they have electricity that meets their needs is fundamental to achieving our business strategy. We are closely collaborating with our stakeholders on agreed activities in becoming a hub of electricity trade in the region.



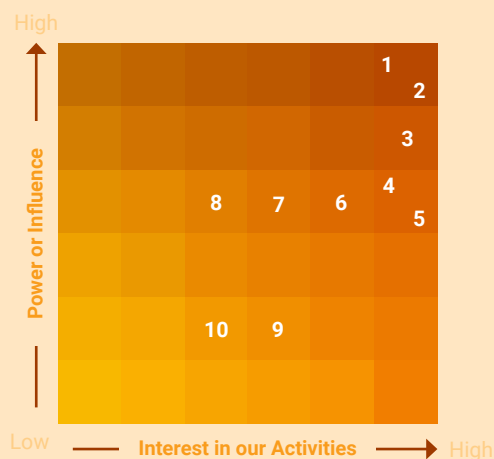
## Stakeholder Mapping

Key:

Power = Level of Authority;

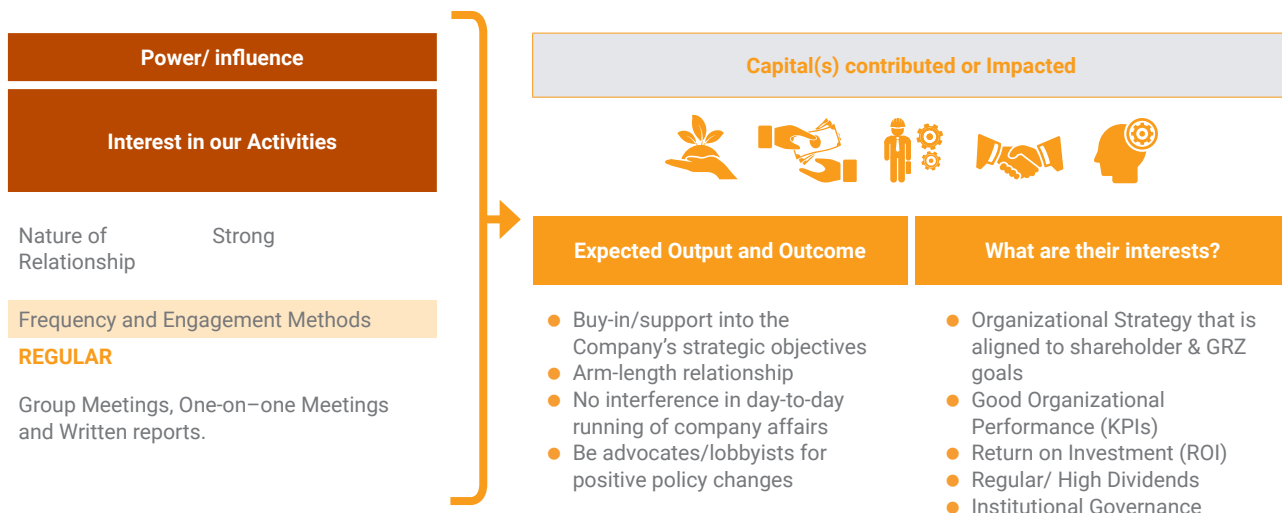
Influence = Level of Active Involvement;

Interest = Level of Concern or interest in our activities

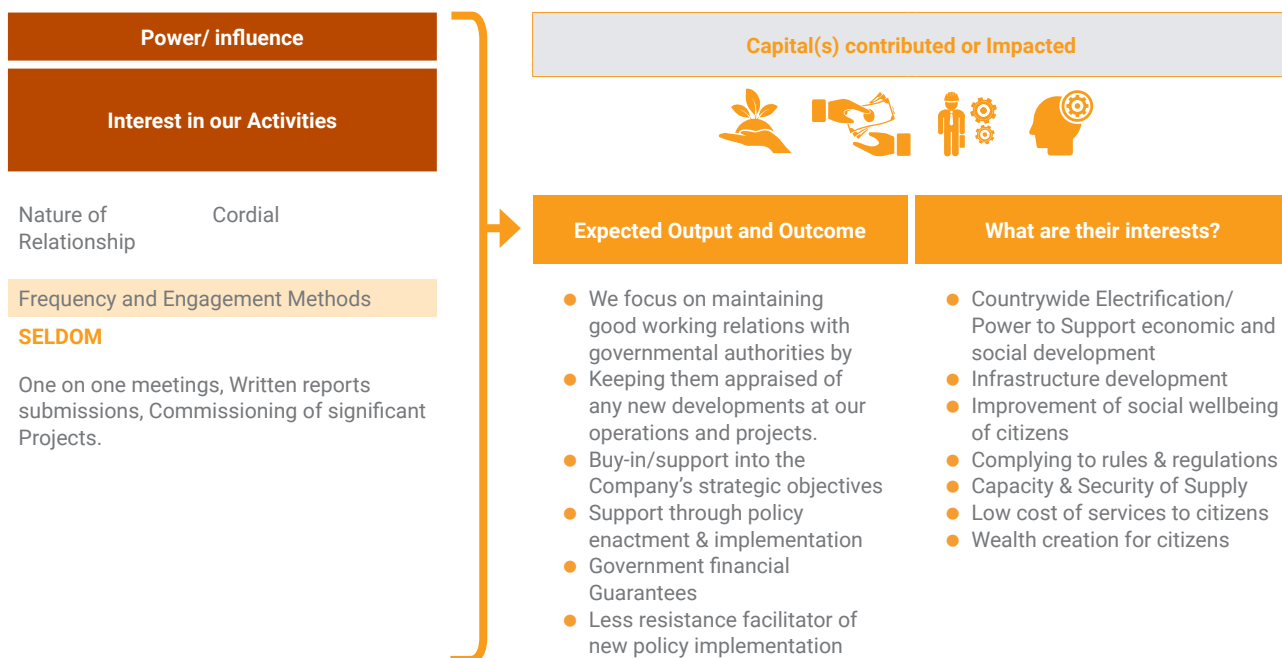




## 1. Shareholders & Board of Directors



## 2. Government

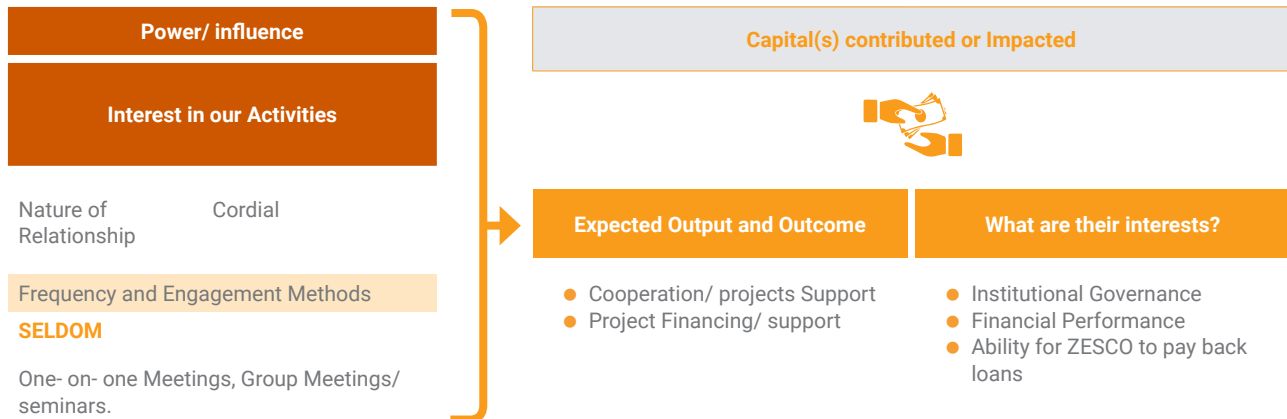


Read more about our *Stakeholder Engagement Methods* on page 28





### 3. Investors & Lenders



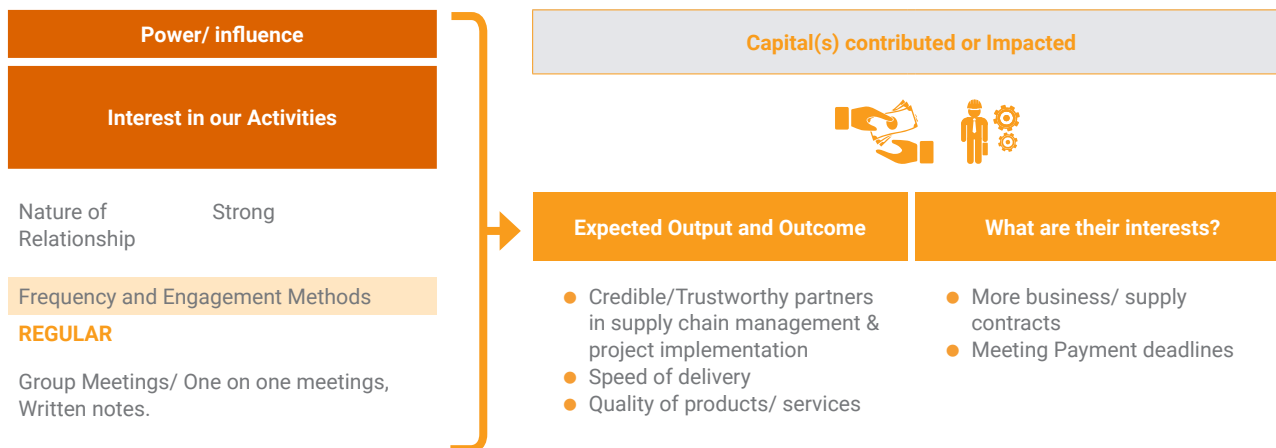
### 4. Employees



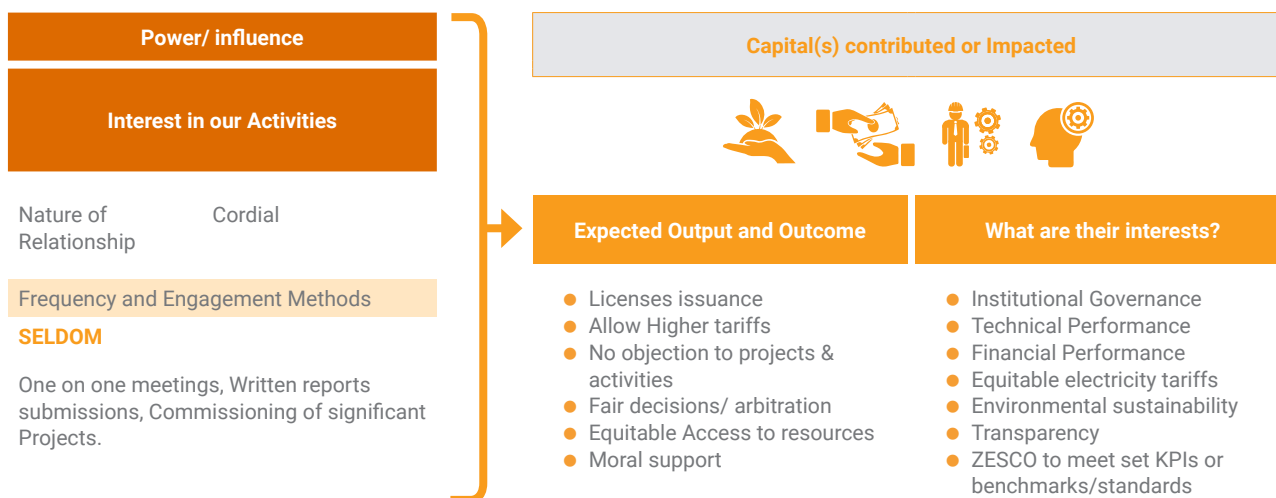
Read more about our Stakeholder Engagement Methods on page 28



## 5 . Suppliers

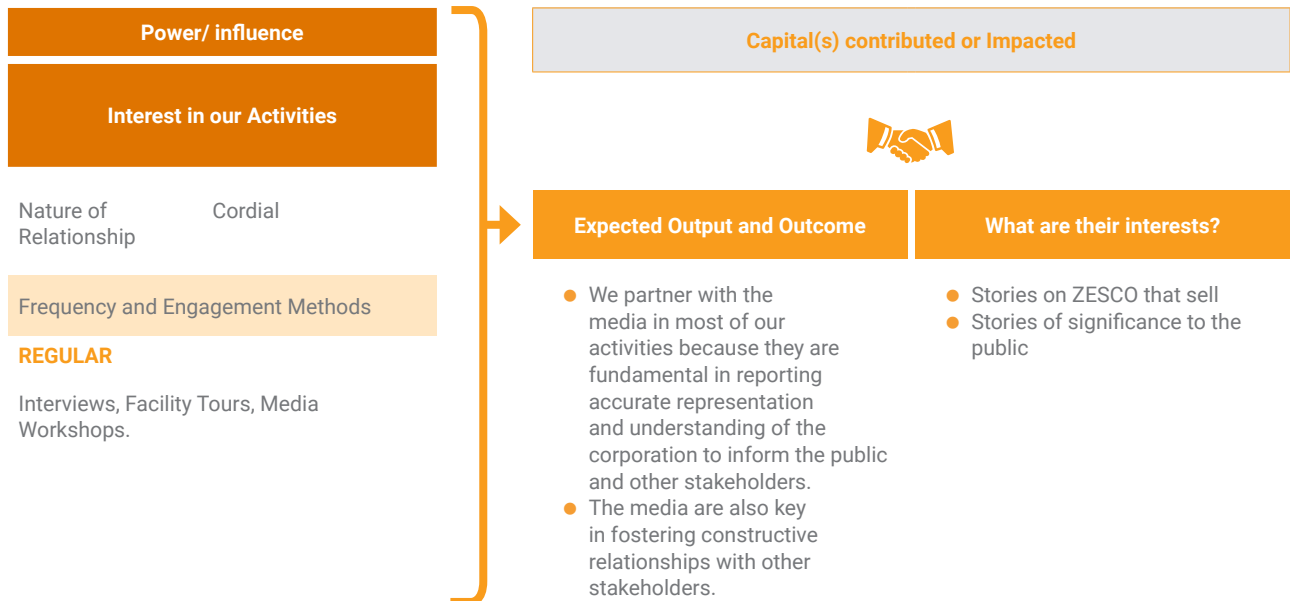


## 6. Regulators

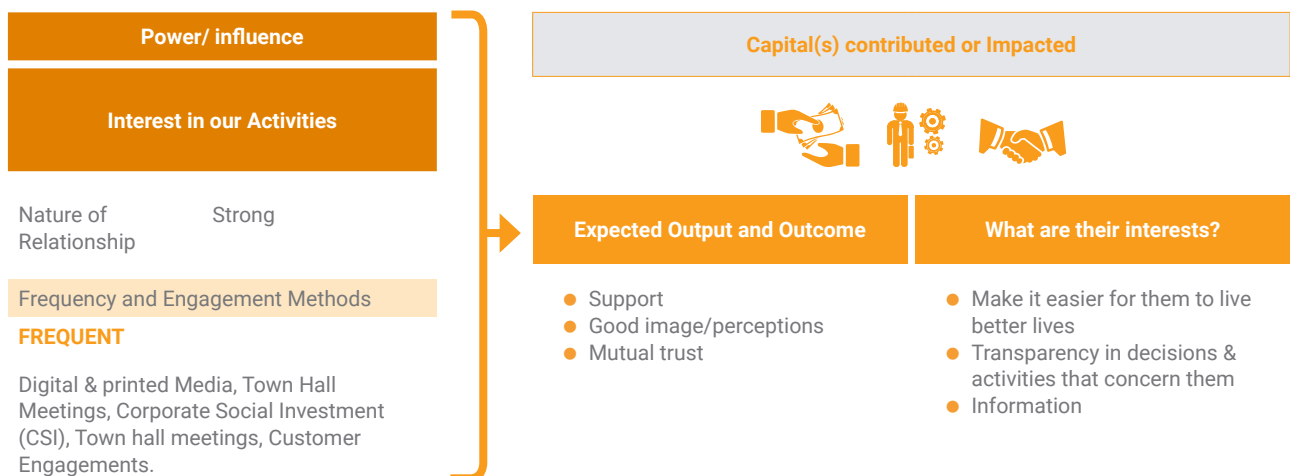




## 7. Media



## 8. Clients and Customers

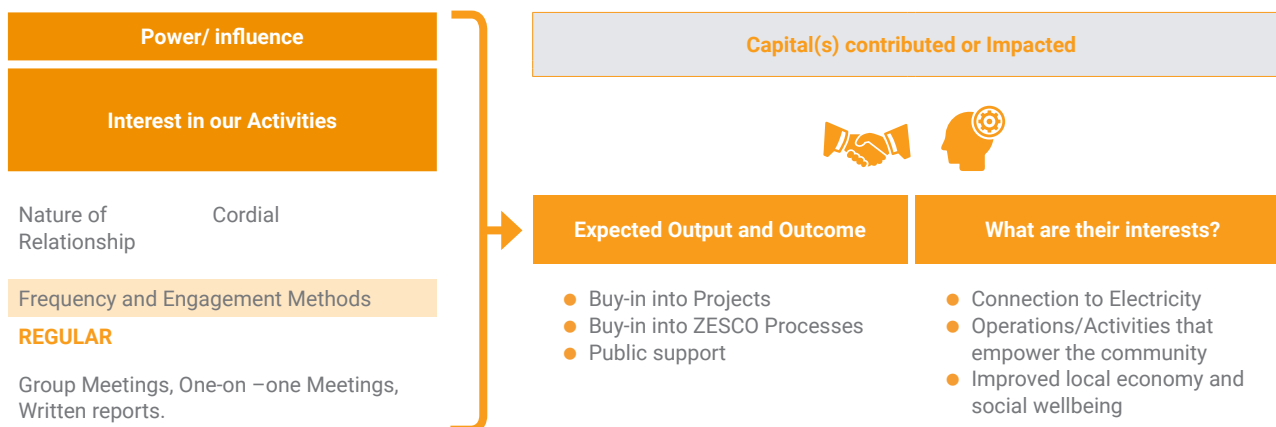


Read more about our *Stakeholder Engagement Methods* on page 28

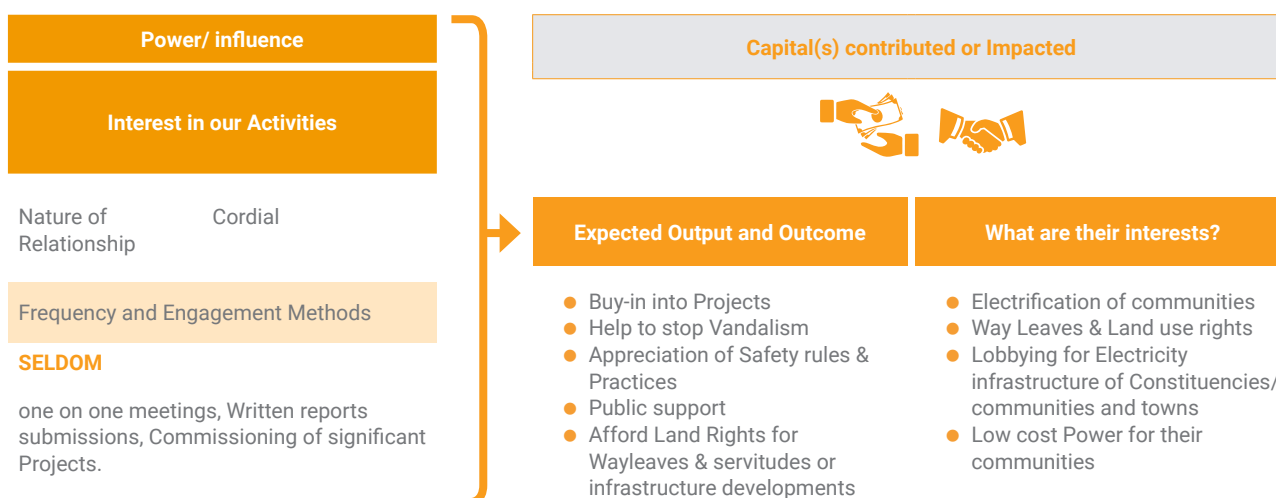




## 9. Local Community







## 10. Local Govt. Authorities, Traditional Chiefs & other Authorities



# Stakeholder Engagement Methods

The Board and management of ZESCO Limited are committed to ensuring transparency to our stakeholders. Accordingly, we provide shareholders with a continuous and timely flow of information in order to ensure that shareholder expectations are aligned with our corporate strategy.

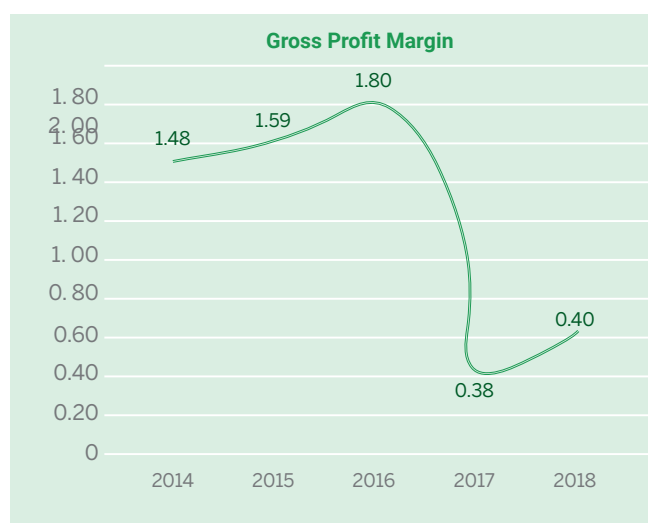
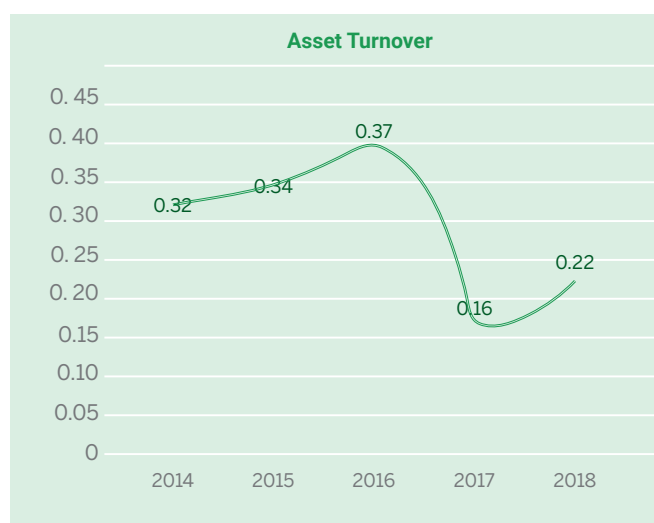
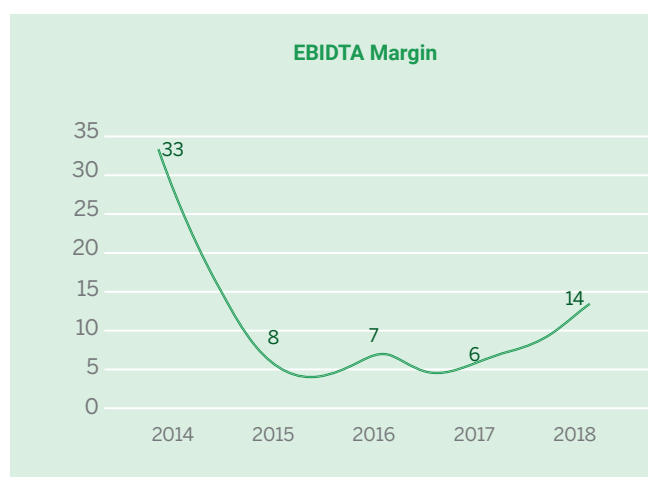
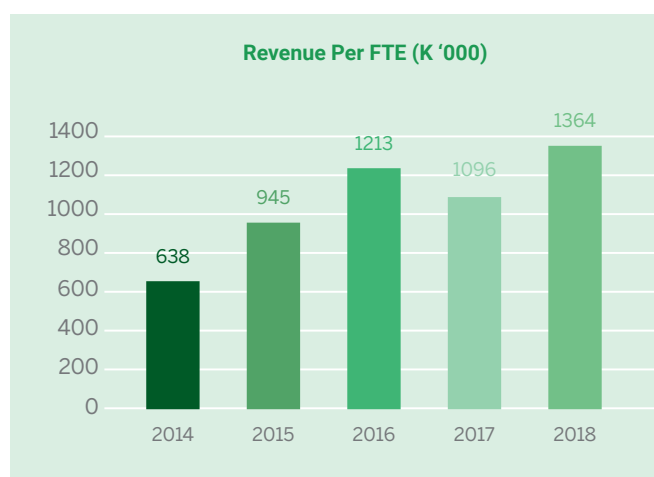
In the period under review, ZESCO Limited carried out several enhancements of its Integrated Report <IR> programme to effectively engage and communicate with its stakeholders. In keeping with best practice, the corporation employed various channels of communication to provide information to its shareholders:

Channel	Why we use these channels	2018 highlights of the activities undertaken
<b>Integrated Reports</b> 	Concise communication about how our organization's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term are document through our Integrated reports.	Our Reports are produced in paper and electronic formats and posted to shareholders and other stakeholders.
<b>Website and Facebook</b> 	Our online media platforms have proved to be a go-to resource of information for online users.	<p>The Corporation's has been using its Facebook page and the website consistently to post updates on various events and activities as well as notices and announcements.</p> <p>At the end of the year, our page had 45, 000 followers with an average of 15, 000 post reach.</p> <p>We have also taken advantage of our technology to create value for the community through provision of various vending options such as mobile phones, banks, vendors, super vendors and aggregators.</p>
<b>Press Briefings</b> 	Press Briefings increase understanding of ZESCO projects and operations as well as enhance corporate image.	We use press briefings to address and important news (e.g. Commissioning's, Product launches) connected to our strategy and involves the participation of journalists and representatives of the company/organisation. Our media briefings are interactive in nature to allow journalists find out more about the organization than via press releases and they give journalists the opportunity to ask questions and set up interviews.
<b>Exhibitions, Seminars, Shareholder Association Meetings</b> 	<p>The corporation uses such platforms to Increase understanding of ZESCO projects and operations as well as enhance corporate image. This platform helps showcase ZESCO's support to the manufacturing sector, enhance corporate reputation and demonstrate corporate/civic leadership.</p> <p>In addition, exhibitions help facilitate Corporate management meet with shareholders and other stakeholders to discuss the Corporation's performance, strategy and other concerns of benefit to all shareholders. The Corporation considers it important to hear from representatives of various shareholder associations in order to fully accommodate concerns and advice from our shareholders.</p>	<p>National Electrification Program (NEP) Launch &amp; Workshop - The workshop provided a platform for Key Energy stakeholders, private sector, and cooperating partners to dialogue, share their experiences and highlight collaborations that will help achieve National electrification targets set at 91% for Urban areas and 51% for rural electrification by 2030.</p> <p>Other AGEs we participated in;</p> <p>Zambia International Trade fair</p> <p>ZESCO won two awards in two categories namely; 1st prize under Business Support and 1st prize under Utility Bodies.</p> <p>Agricultural and Commercial Show in Lusaka</p> <p>Prizes won:</p> <ul style="list-style-type: none"> <li>● 1st Best overall Exhibitor</li> <li>● 1st Best Industrial exhibit</li> <li>● 1st Best infrastructure exhibit</li> <li>● 2nd Public Service category.</li> </ul> <p>Copper belt Mining, Agricultural and Industrial Trade Expo (CAMINEX)</p> <p>The 2nd Regional African Conference of the International Telecommunications Society</p> <p>SAPP Congress</p>

Channel	Why we use these channels	2018 highlights of the activities undertaken
<b>Facility Visits</b> 	Facility visits increase levels of understanding and acceptance of the organizations' products and services by external stakeholders	<p>Tour by Parliamentary Committee on Parastatal Bodies to Kafue Gorge and Tour to Kariba Power Station and Kariba Dam</p> <p>Corporate Management accompanied the Energy minister and his entourage to Kariba Power Station in Siavonga to familiarize themselves with the ongoing projects that ZESCO is undertaking on the Power Station and the Kariba Dam.</p> <p>The Kafue George Lower and Leopards hill power station tour was also aimed at sharing information with the public on the maintenance works and the scheduled power outages that was experienced in various areas.</p>
<b>Sensitization Campaigns,</b> 	We use sensitization campaigns to increase awareness, to inform & Educate.	<p>Anti-Vandalism Campaign - The awareness campaign was done in Rufunsa District for the New Luangwa 132kv transmission line. This Campaign was used raise awareness on the importance of the line, the consequences that may arise as a result of vandalism and the cost to the company.</p> <p>ZESCO Integrity Program Awareness - This platform created awareness on the mandate of the integrity committee in the corporation.</p> <p>The meeting brought together 50 stakeholders both from the media and different institutions such as IDC, Financial Intelligence Centre, Zambia Police Service, Ministry of Energy, Ministry of Finance- EMF and BEA, ERB, ANTI- Corruption Commission, Drug Enforcement Commission, Auditor General's office and Transparency International Zambia.</p>
<b>Charitable Donations and Sponsorships.</b> 	We use Charitable Donations and Sponsorships to contribute towards the sustainable development of society and the environment.	<p>Renovating of Hillside primary school in Chunga - To give back to the community by contributing to the betterment of the education system in Zambia and to build mutual relations</p> <p>Traditional ceremonies</p> <ul style="list-style-type: none"> <li>● The Kuomboka traditional Ceremony</li> <li>● Chisemwa Chalunda traditional ceremony</li> <li>● Likumbi Iya Mize</li> <li>● Builile traditional ceremony</li> </ul>
<b>Media tours</b> 	To improve accurate and factual reporting by journalists about ZESCO's projects, operations, products and services.	Media Training Workshop Kitwe - Our media engagements are transparent, covers a range of matters, facilitates understanding of ZESCO's activities, and promotes accurate reporting and constructive relationships with other stakeholders.
<b>Media Interviews and workshops</b> 	Media tours help journalists familiarize themselves with the operations and to equip them with factual information for transmission to the public.	Media were also engaged to cover the tours and ensure good publicity following the Parliamentary Committee's tour as the nation was updated on the progress of the KGL project.
<b>One-on-one Meetings, Group Meetings, Town hall meetings &amp; Customer Engagements</b> 	<p>Inform, Engage and Educate stakeholders to Increase their understanding of ZESCO projects, products and services.</p> <p>Meetings and Customer Engagements facilitate an opportunity for interactive interaction between the stakeholders and ZESCO. Information is readily available and given out instantly. Further, many issues are clarified and the company addresses other concerns in regards to improved service delivery.</p>	<p>ZESCO/ERB Community Awareness Meeting - The meeting brought together stakeholders in Chilenje and surrounding areas to discuss major developments, notable efforts made to spur economic development in the energy sector and challenges faced.</p> <p>Matero stakeholders meeting - The aim of the meeting was to update customers on the current Transmission Switchgear retrofit project the company has been undertaking and the benefits this will bring to the area. Invited stakeholders included the Lusaka Mayor, Ward councilors, Community leaders, Market leaders, Matero, the media and other stakeholders.</p> <p>ZESCO also discussed the Lifeline tariff, expansion of the National Call Centre, faults resolution and electricity.</p> <p>Customer engagements - were organized in Lusaka and Kabwe. The customer engagements were aimed at having closer interaction with customers and answer their questions one on one. Such events are adequately covered by both broadcasting and print media.</p>

# Finance Director's Statement

## Group Financial Overview



## Financial Overview

**"2018 presented a number of externally driven challenges which threatened the business ...**

**However, we navigated our way through the turbulent times and remain hopeful about future prospects for the business..."**

**Saidi Chimya**

**Finance Director**

Group's Financial Performance for the year.

2018 presented a number of externally driven challenges which threatened the business' going concern. However, with support from the shareholder, the board combined with a resilient team of management and staff, and forbearance from our customers helped us navigate our way through the turbulent times.

The importance of securing financial capital for additional investments in the energy mix and migrating to cost reflective tariffs gives us hope about future prospects for the business and the electricity industry in general.

### Group Revenue

Total revenues for the period at K9.5 billion increased by 28% over 2017, this is mainly due to the depreciation of the local currency.

It gives me a great honor to present to you an overview of the ZESCO



This meant the reported revenues from dollar denominated mining and export sales increased. The local currency depreciated by an average of 20% during the year. Total mining sales for the year were 6,831 GWh, an 8% increase over 2017. The largest contributing increase arising from Copperbelt Energy Corporation (CEC) which recorded a 12% increase over its 2017 total.

Revenue	2018	2017	+ / -	+ / -
	K 'm	K 'm	K 'm	%
Category				
Mining	5,324,388	4,168,070	1,156,318	28
Residential	1,596,638	1,578,360	18,278	1
Industrial and Agricultural	1,239,429	924,033	315,396	34
Exports	1,063,366	728,968	334,398	46
Commercial (Retail Outlets)	311,114	25,419	285,695	1,124
Total	9,534,935	7,424,850	2,110,085	28.42

Mining recorded an increase of K1.2billion which in value terms was the largest, while sales to commercial retail outlets recorded the largest percentage increase, an increase of over 1000%. During the year, Mpande Limestone Mine (PPA) came on board as a local bulk customer and contributed to the increase in mining sales. However, the cost of sales which are also mostly dollar denominated increased by 25%. This is mainly on account of the increase in purchases from Independent Power Producers (IPPs) of 39%. Despite the increase in the cost of sales, the Gross Profit Margin increased to 40% from 38% the previous year.

	2018	2017
Summary of Profit for the year ended 31 December	K 'm	K 'm
Revenue *	9,535	7,425
Cost of Sales	(5,286)	(4,311)
Gross Profit	4,249	3,114
Other Operating Income	561	424
Other Losses	(1,652)	(87)
Marketing Expenses	(20)	(32)
Administrative Expenses	(3,449)	(2,379)
Other Expenses	(2,320)	(787)
Finance Costs	(555)	(440)
Share of Profit of Associates	22	10
Share of Profit of a Joint Venture	440	235
(Loss)/Profit before tax	(2,722)	59
Income tax Credit	4,068	712
Profit for the year	1,346	771

\* The Group revenue is exactly the same as that of the parent company because the transactions of the group are related party transactions between ZESCO and its subsidiary Kariba North Bank Extension (KNBE) and Itezhi tezhi Power Corporation (ITPC) a joint venture which net off on consolidation. It is only internet sales by Fibrecom that are not primarily to related parties and these are reported under other income.

	2018	2017
EBITDA Margin	K 'm	K 'm
(Loss)/Profit before tax	(2,722)	59
Add Back: Non-Cash Items		
Finance Costs	555	439
Depreciation and Amortisation Expense	1,975	846
Amortisation of Capital Grants and Contribution	(151)	(102)
Exchange Losses	1,652	92
EBITDA	1,308	1,334
Revenue	9,535	7,425
EBITDA Margin	14%	18%

## Operating Profit

The group recorded an operating loss of K2.7 billion. This being a significant decline from the K59 million operating profit recorded in 2017. The loss was mainly due to exchange losses, provisions for bad debts, and administrative and other expenses. The exchange losses are as a result of the depreciation of the local currency as earlier disclosed while the increase in provisions follows the revision to IFRS 9 – Financial Instruments requiring the mandatory impairment of receivables effective 1 January this year. The impairment cost has significantly increased as it is now based on an expected credit loss model rather than the previous incurred credit loss model under IAS39.

However, the Group has continued to record a favorable EBITDA margin which still allows for additional investment, settlement of principal and interest obligations. The EBITDA margin now stands at 14%, a marginal drop from 18% in 2017.

## Group Finance Charge and Tax

An increase of 26% was recorded on finance charges which totaled K555 million while a tax credit of K4 000 million was recorded. This being an increase over the K712 million in 2017. The tax credit resulted in a profit for the year of K398 million despite the severe operating loss.

## Highlights for the year

Despite a number of setbacks, we remain resolute to achieve our short and medium to long term objectives. A number of occurrences during the year bolstered our overall profitability. Among them, the final outstanding contract for emergency power imports from Karpowership in Mozambique expired at the end of the first quarter. This offered an element of relief on the company's strained cash flows. Further, the position was improved with the receipt of US\$23 million from a contractor as compensation for faulty equipment previously delivered. Exports of 20MW to Malawi through the 33kV distribution network also commenced during the year thereby adding annual foreign exchange inflows averaging US\$4million. To consolidate the liquidity and future profitability, corporate management in close collaboration with the Board of Directors also introduced a number of austerity measures. These measures include; the downward review of the staff electricity rebate, the suspension of all salary increments, in-house loans, non-critical local and foreign travel and holding of meetings in third party paid for

venues such as hotels and conference facilities.

## Group Cash flow, Net Debt and Balance Sheet

The group recorded a net increase in cash and cash equivalents of K438 million during the year, this is a significant rise over the net decrease of K2.3 million recorded in the previous year. The increase is largely on account of proceeds from borrowings and the increase in trade and other payables. Significant investment in property, plant and equipment of K14 billion was the cause for the major outflow. Only K4 billion was invested the previous year.

Operating cash flow	2018	2017
Year ended 31 December	K '000	K '000
Profit for the year	1,345,967	771,003
Adjustments for non-cash items	2,735,700	(1,264,735)
Movements in working capital and, interest and tax paid	5,449,671	4,022,052
Net Cash generated from operating activities	(594,524)	(612,769)
Net Cash used in investing activities	(13,558,306)	(4,000,755)
Net Cash generated from financing activities	5,059,471	1,082,923
Net increase in cash and cash equivalents	437,979	(2,281)

Net debt at K43.6billion increased by 37% from 2017 and was mainly to finance works on the Kafue Gorge Lower Hydro Power Project which is expected to be completed in 2019.

	2018	2017	+ / -	+ / -
Net Debt	K '000	K '000	K '000	%
Liabilities				
Long term	26,692,412	22,277,775	4,414,637	20
Short term	19,405,928	11,707,383	7,698,545	66
Cash and cash equivalents	2,460,653	2,062,566	398,087	19
Total	43,637,687	31,922,592	11,715,095	37

The major movements on the balance sheet were mainly on Property, Plant and Equipment and borrowings. The revaluation reserves also reduced by 18% to K14 billion resulting in a 9% drop in equity.

Net Assets recorded a 5% reduction to K22.9 billion from the 2017 balance.

## Future Outlook

Despite a myriad of existing challenges, we are confident that the future is bright and holds a number of promising opportunities. The following are some of the engagements we have initiated to ensure we are strategically positioned to grasp such opportunities immediately they present themselves:

- We are currently focused on renegotiating the tenures and terms for some of the existing obligations to Independent Power Producers (IPPs) and other lenders with a view to relieve the burden on our cash flows.
- An application for the review of the domestic tariffs to cost reflective levels has been made to the Energy Regulation Board (ERB), and we are hopeful that it will receive favorable consideration thereby enhancing our working capital position.
- Some of the onerous bulk purchase agreements (BSAs) are under review so as to arrive at reasonable and affordable tariffs. Further, it is hoped that the open access reforms will create a competitive electricity supply market and therefore relieve us of the burden of being an off-taker for unaffordable purchases from IPPs.
- Investment has continued in other generation so as to broaden the energy mix and increase own generation thereby diluting the heavily weighted average cost of purchases from IPPs.
- Investment into linkages with the East African Power Pool with a view to obtain alternative and more lucrative tariffs.
- As a means of ensuring sustainable operations, we have also implemented austerity measures so as to realize optimum efficiency and improve the working capital position.

The Board and its Audit Committee provide oversight to the Finance Director, who is responsible for tax governance and strategy.

## Our View on Taxation

The corporation considers its obligation to collect, declare and pay the correct amount of tax promptly as a priority thereby supporting the treasury's effort to develop the nation

## Our Attitude

We consider our obligation to pay, collect and declare the correct amount of tax promptly as a priority. This demands that we carry out our operations in a cautious manner ensuring that we comply with all applicable legislation and subsidiary requirements.

Our commitment to disclose information relevant to ownership, financing and transaction structures to the tax authorities is also cardinal. We endeavor to recognize all revenues and costs of financing our operations appropriately at fair and sustainable basis.

ZESCO has a zero tolerance attitude towards tax evasion or fraud by our employees, customers, suppliers, contractors or any party associated with our operations. Any such actions will be dealt with sternly, and where necessary reported to the appropriate law enforcement agencies.

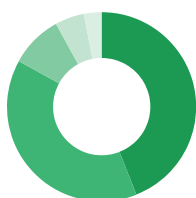
Below is a summary of the applicable taxes to which ZESCO is subject:

Domestic Taxes	Earn (PAYE)	Customs Duties
<ul style="list-style-type: none"> <li>Value Added Tax (VAT)</li> <li>Income Tax</li> <li>Pay as You</li> </ul>	<ul style="list-style-type: none"> <li>Withholding Tax (WHT)</li> <li>Excise Duty</li> </ul>	<ul style="list-style-type: none"> <li>Customs Duty</li> <li>Import Duty</li> </ul>

To ensure the successful implementation of this we regularly engage with relevant stakeholders such as the tax authority, tax consultants and external auditors.

A summary of our contribution towards some of the major taxes is shown below:

### Taxes



- Pay As You Earn (PAYE) 44%
- Withholding VAT 39%
- Customs Duty 9%
- Excise Duty 5%
- Corporation Tax 3%
- Personal Levy 0.01%



# Corporate Governance

<b>Leadership and Accountability</b>	<b>36</b>
Key Board Decisions	37
Board Committees	37
Board of Directors	38
Corporate Management	40
<b>Risk Management</b>	<b>44</b>
Our Key Risks and Uncertainties	44



“Good corporate governance is a fundamental part of the group’s sustainability. Adherence to the standards and recommendations set out in the Board Charter and other relevant laws and regulations is vital to achieving our strategic priorities”.





# Leadership and Accountability

## Our Board of Directors

The Board is responsible for the oversight of corporate governance at ZESCO Limited. The Board acknowledges that sound governance principles and practices underpin the creation of value and the sustainability of the business, and are thus crucial to the achievement of the business objectives.

The Board also recognises that strategy, performance, sustainability and risk are inseparable. Our value-driven

culture and Ethics underpins governance structures and processes, committing the company to high standards of business integrity and ethics in all its activities. The Board is committed to promoting good governance, providing ethical leadership and supports the principles and outcomes contained in the Board Charter.

### The Board Charter

The Board of Directors is governed by the Board Charter,

which has been developed in line with the Companies Act and Articles of Association. The purpose of the Board Charter is to guide the Board of ZESCO and its Committees in the discharge of their duties, responsibilities and accountability in accordance with the principles of good corporate governance and best practice.

The Charter binds the Board Members to the principles of Corporate Governance.

It recognises that although laws exist and prescribe how directors and company shall be run. Corporate Governance is a commitment to principles that appeal to the individual character that is self-monitored.

It constitutes and forms an integral part of ZESCO Directors' Terms of Reference.

The Charter applies to Members of the Board and its Committees.



## Board Composition and Appointment

The Board and Committee members are appointed by the Shareholder Industrial Development Corporation Limited. The tenure for Board members is 3 years and may be eligible for appointment for 2 terms. The directors of the company shall comprise the following;



The Permanent Secretary or a representative of the Ministry responsible for Sector Policy



Not more than five (5) persons from the private sector



The Managing Director



## Committees

The Board has established Committees, in which Board Members play an important role in assisting to execute duties, powers and authorities. The Board delegates to each of the Committees so established, such authority as is required to enable such Committees to fulfil their responsibilities. Such delegation of authority to Board Committees or Management does not mitigate or discharge the Board and its members of their duties and responsibilities.

Audit & Risk

Finance & Investments

Human Resources, Commercial & Customer Services & Legal Services

Technical

# Key Board Decisions

During the year the Board made the following decisions;

- Approved 2019 budget, which is used as a tool to monitor and control the performance of the Strategy of the company;
- Approved the 2017 audited Financial Statements highlighting the financial performance of the company and confirming the going concern of the company;
- Approved ZESCO reforms being undertaken by the Shareholder – IDC;
- Approved the appointment of a Mandated Lead Arranger to facilitate raising of US\$500 million as part of the Balance sheet restructuring;
- Approved Scaling Up Solar Power Purchase Agreements for Bangweulu and Ngonye Limited;

## Board Committees

### Audit & Risk Committee

The Audit and Risk Committee's principal regulatory duty is to oversee the integrity of the group's internal control environment and to ensure that financial statements comply with International Financial Reporting Standard (IFRS) and fairly present the financial position of the group.

During the year, the Committee considered the following business;

- Confirmed the integrity of the group's audited Financial Statements and Integrated Report for 2017 and recommended to the Board for approval.
- Reviewed and approved the terms of engagement as contained in the engagement letter of the external auditors;
- Approved the remuneration of the external auditors;
- Approved the integrated audit plan of the external auditors;
- Pre-approved all non-audit services in line with the formal policy on non-audit services
- Reviewed the procedures for detecting, monitoring and managing the risk of fraud;
- Reviewed the scope, resources, results and effectiveness of the internal audit department;
- Approved the internal audit plan, monitored the execution of the approved plan and approved subsequent changes to the approved plan;
- Considered the impact of adoption of new International Financial Reporting Standards (IFRS 9) on the following: IFRS 15 - Revenue Recognition was effected on 01 January 2018, IFRS 9 - Financial Instruments include assessment of financial assets will affect financial reporting was effected on 01 January 2018 and IFRS 16 - Leases will come into effect on 01-January 2019;

### Internal Audit

The Group Internal Audit is an independent department which provides assurance in the internal control environment of the company. Internal Audit has direct access to the chairpersons of both the Audit and Risk Committee and the Board. The Head of Internal Audit reports functionally to the Audit and Risk Committee and administratively to the Managing Director.

During the year, the following activities were undertaken by Internal Audit;

- Evaluating the effectiveness of internal controls over financial reporting and internal control environment;

- Assessing the governance of risk within the Company;
- Reviewing the governance of Information Technology within the Company;
- Assessing compliance with laws, rules, codes and standards within Company;
- Reporting findings to management and the Audit and Risk Committee and monitoring the remediation of all significant deficiencies reported;
- Implementing a combined assurance Framework;

Internal Audit will continue to fulfil the obligations charged by the Audit & Risk committee by providing oversight on the control environment of the Company.

### Finance & Investments

The committee comprises 9 members drawn from the Main Board and public sector.

The responsibilities of the Committee include:

- Examine the financial performance of the company by reviewing the financial management reports;
- Examine the Investment Performance report and portfolio;
- Review and examine the guidelines on the investment policy and plan in line with relevant policies and procedures to ensure adequacy and efficiency;

During the year, the following matters were discussed;

- Examine the financial performance of the company by recommending the Management reports for approval to the Board of Directors;
- Recommended to the Board of Directors on the need to request the Government of Zambia to waive the cost of H4 fuel for generation of power by Ndola Energy;
- Examined the Tax exposure of the Company and recommended the engagement of a Tax consultant;
- Reviewed the Power Purchase Agreements for scaling up solar and new Power Supply Agreements customers;
- Reviewed and recommended to the Board for approval the new strategy of the Company;

### Technical Committee

The committee comprises of 7 members drawn from both Non-Executive Directors, Executive Technical Directors and from the private sector.

The key responsibilities of the Technical Committee shall be;

- To oversee the Company's responsibility of technical reporting processes;
- Design the system of internal project identification, appraisal and reporting;
- Design the process of approval leading to implementation on behalf of the Board;
- Shall also be responsible for the supervision and monitoring of compliance with

During the year the following matters were considered;

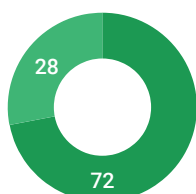
- Discussed the new Independent Power Producer - to develop at Ngonye Falls;
- Approved engagement of lines men and Cable Jointers;

*continued on page 42*

# Board of Directors

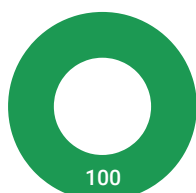
## Our Board Diversity

### By Gender



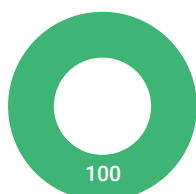
- Male 72%
- Female 28%

### By Nationality



- Zambian

### By Tenure



- < 1 years
- 1-3 years
- 3-6 years

## Committee

### Membership Key:

- A** Audit & Risk Committee
- F** Finance & Investment Committee
- H** Human Resources, Commercial & Customer Services & Legal Services
- T** Technical Committee
- Chair of the Committee**

 Sub-committee **Board Committees on page 37**



**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.



**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.



**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.



H A

**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.



T H

**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.



A F

**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).



F T

**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.

## Corporate Management



**Director Generation**  
Fidelis Mubiana (52)

**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.



**Director Transmission**  
Webster Musonda (46)

**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.



**Director Distribution**  
Dennis Banda (54)

**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.



**Director Finance**  
Saidi Chimya (58)

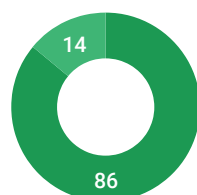
**Appointed:** 2<sup>nd</sup> December, 2016.  
**Experience:** He is a Chartered Certified Accountant, ACCA and a holder of Bachelor Degree in Accountancy obtained from Copperbelt University. He is a fellow of ZICA and ACCA, with wide experience in treasury management and corporate finance, accounting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

## Committee

### Membership Key:

- Audit & Risk Committee
- Finance & Investment Committee
- Human Resources, Commercial & Customer Services & Legal Services
- Technical Committee
- Chair of the Committee

### By Gender



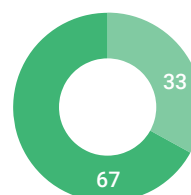
- Male 86%
- Female 14%

### By Nationality



- Zambian

### By Tenure



- < 1 years
- 1-3 years
- 3-6 years





H

**Director Customer Services**  
Chiti Kabwe Mataka (54)

**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.



H

**Director Human Resources and Administration**  
Rhoda K Mwale (45)

**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.



F

**Director Strategy and Corporate**  
Changala Nswana (54)

**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.



H

**Director Legal**  
McRobby V Chiwale (46)

**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 18years experience of practicing law.

## Board Members Attendance

No	Board Members	Board Meetings	Special Board Meetings	Audit & Risk Committee	Finance & Investment Committee	Technical Committee
1	Dr. Mbita C. Chitala	5/5	4/4	4/4	5/5	4/4
2	Mr. Victor M. Mundende	4/5	4/4	4/4	5/5	4/4
3	Brid. Gen. Emelda Chola	5/5	4/4		4/5	
4	Mr. Pythias Mulenga	5/5	4/4	4/4	5/5	
5	Mr. George M. Kanja	5/5	4/4	4/4	1/5	
6	Mr. Chibwe D. Mwelwa	5/5	4/4		5/5	3/4
7	Ms. Kavumbu Hakachima	5/5	4/4			4/4
8	Mr. McRobby Chiwale					
9	Mr. Fidelis Mubiana					4/4
10	Mr. Webster Musonda					4/4
11	Mr. Denis Banda					4/4
12	Mr. Saidi Chimya			4/4	5/5	
13	Mr. Changala Nswana				5/5	
14	Mr. Chiti Mataka					
15	Mrs. Rhoda K. Mwale			4/4		
16	Mrs. Alice Simbaya			4/4		
17	Mr. Boyd Simposya					3/4
18	Mrs. Mwila Kasase Zulu				5/5	
19	Mr. Brian Kambole				2/5	
20	Mrs Nancy Sikazwe					
21	Mr Joseph Ilunga					
22	Mr Patrick Mwila					

continued from page 37

- Extension of transmission line to Shango'mbo in Western province;

## Human Resources, Commercial & Customer Services and Legal Services;

The Committee comprises 7 members drawn from both Non-Executive and Executive Directors.

The responsibilities of the Human Resources, Commercial & Customer Services and Legal Committee include;

- Receive the various legal cases and make recommendations;
- Review human resource plans, policies and processes;
- Confirm that the Corporation's organizational development and executive compensation practices;

- Support strategic business objectives on behalf of the Board of Directors;
- Shall have oversight responsibilities for the Corporation's overall human resources; policies and procedures, including:
  - Recruitment;
  - Performance management;
  - Compensation benefit programmes;
  - Resignations/terminations/severance;
  - Training and development;
  - Diversity, succession planning;

During the year, the following matters were considered;

- Approved Labour optimization by considering the option of outsourcing certain components of the business activities.
- Approved the engagement of a Consultant to review the Structure of the Company;
- Recommended to the Board for Approval of revised Board Charter;

Legal, Customer Services & Administration	Special Audit & Risk Committee	Annual General Meeting	Board Evaluation Meeting	Special Finance & Investment
3/3	4/4	1/1	1/1	1/1
3/3	4/4	1/1	1/1	1/1
		1/1		1/1
	4/4	1/1	1/1	1/1
3/3	4/4	1/1	1/1	
		1/1	1/1	1/1
3/3		1/1	1/1	
3/3				
	4/4			1/1
				1/1
3/3				
3/3				
	4/4			
				1/1
2/3				
3/3				

# Risk Management

## Our Key Risks and Uncertainties

Our Enterprise Risk Management Strategy (ERM) is anchored on our ability to understand those risks that could influence the execution of our corporate strategy and determining the acceptable level of risk appetite that we can tolerate.

- Identifying particular events or circumstances (operational, Financial, Economic, Health & Safety, etc.) That could impact

our ability to achieve strategic objectives (both downside and upside risks),

- Undertaking an assessment of the likelihood and magnitude of impact that the risk could have on the organization,
- Determining an appropriate response strategy for each risk group, and develop a risk monitoring mechanism to track the risks.

## Governance and Oversight of Risk Management

### Oversight and Governance

Our board is responsible and accountable for ZESCO Risk Management Strategy. Our Key Risks are effectively monitored by the Board, through its various Board Committees headed by Independent Non-Executive directors, the board also reviews and set the risk appetite. The shareholder provides supervisory oversight to the board through shareholder meetings (AGM).

### Business and Strategic Risk Management

The Board delegates the responsibility of the Risk Management Process to corporate management. The Managing Director has the delegated responsibility of managing business and strategic risk allocated to him in accordance with acceptable risk Appetite.

### Day-to-Day Risk Management

Corporate management has delegated responsibility to various strategic business units to ensure the adherence and management of risk is embedded in the day to day operations. This process involves making both employees and stakeholders perform their day to day activities within the approved policies, processes and management systems guidelines. Corporate management provides oversight of these processes.

### 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:

#### 1. Risk Identify

- Identify significant risks that have a potential to derail our overall strategy and/or key strategic objectives of the company.

#### 2. Risk Assessment & Analysis

- Assess inherent impact and likelihood using risk assessment matrix.
- Identify risk type and determine target risk rating
- Identify mitigating activities, key risk indicators and assess current risk.

#### 3. Design & Implement Controls

- Design and implement controls and actions to mitigate the potential impact and likelihood of risks

#### 4. Risk Management & Monitoring

- Management of risks and controls to deliver target risk level
- Monitor through inspection, performance reviews and regular reporting
- Identify and implement remedial action

#### 5. Identification & Implementation of Specific Risk Response Strategy

- Report, Evaluate and Improve remediation actions.
- Report consolidated risk, assurance and control position to Audit committee.
- Evaluate priority risks within risk profile to identify any corrective actions.
- Drive continuous improvements through reviewing the Risk Universe and risk appetite.

## Our Key Risk.

The following information provides an assessment of the risks currently considered as primary risks of the Company.

	1	2
	Climate Change risks	Cyber, Security and System Resilience
Risk Description	Changes in global or regional climatic conditions resulting in adverse weather patterns (such as heavy rains and storms, droughts, excessive temperatures,) are affecting & altering Business Landscape across the globe.	Risk of IT system internal misuse, cyber-attack, security of IT systems and resilience and business continuity.
Potential Risk Impact	The Corporation's electricity generation business is predominantly hydro. Climate change phenomenon such as droughts, excessive temperatures, flash floods etc. can affect our ability to collect enough water and overall dam operations at the various storage reservoirs, which in turn affects the capacity to generate adequate electricity. The Major Hydro Power Plants, are located in the southern part of the country, which is susceptible to adverse effects of climate change.	ZESCO continues to invest in business-integrated system, which manages different aspects of the business, such as <ul style="list-style-type: none"> <li>• Customer Management System – Managing over nine hundred and sixty thousand Clients.</li> <li>• Asset Management and Services Systems – Operations and Management of assets.</li> </ul> Therefore, there are risks of; Information Breaches (Hackers and Viruses), System failure to cope with peak customer demand & a disaster disrupts the IT infrastructure, which can result into financial loss and reputation damage.
Mitigation	<p>ZESCO has been implementing the cascaded generation strategy to increase generation on the same waterbody and this will allow us to generate more electricity with the same water at various plants. The Kafue River water body initially had 990 MW installed plant, however after the full implementation of strategy, the total installed plant on the waterbody will be 1,860MW (KGL - 750MW, KGPS – 990MW and ITPC -120MW).</p> <p>ZESCO is undertaking development, refurbishment and upgrading of Small Hydro Power Plant portfolio (10 – 20MW). These Plants are located on the Northern part of country, which are not drought prone, thus the investment will ensure increased and sustained generation capacity. In 2018, we commissioned the newly upgraded Musonda Falls 10 MW plant.</p>	<p>Information System (IS) Security underpins our ability to achieve various strategic objectives. Management has continued to invest in cyber security systems, infrastructure and solutions to ensure the organisation capability to intelligently monitor and react to threats and incidences is enhanced.</p> <p>Management ensure that the systems are resilient and cope with the demands of our customers and the business through timely investments in modern robust IT Systems, and /or undertake necessary system upgrades to make the existing systems cope with current trends.</p> <p>In an unlikely event that a disaster disrupts our Information System and the IT infrastructure. Management has developed disaster recovery plan for Information systems, Management regularly reviews the plan to ensure that it can comprehensively support ZESCO's business continuity strategy.</p>



	3	4	5
	Safety, Health, Environment and Quality (SHEQ)	Asset Management Risk	Digital Technology and Information Systems
Risk Description	Risk of failure to protect the health and safety of customers, employees and third parties or to respond appropriately to protect our environment in which we operate.	Risk of failures to effectively undertake prudent group asset management function.	Risk of reduced availability and sustainability, data optimisation and business benefit realisation associated with IT systems and data essential for our operations.
Potential Risk Impact	Our operations have the potential to result in personal or environmental harm. Significant SHEQ events could have regulatory, financial and reputational repercussions that would adversely affect our business.	Failure to effectively manage the asset management function could result in significant Safety Health Environmental risks and overall asset underperformance. The consequences of poor asset management could result in unplanned outages, equipment failures, network overload, shortened asset life, etc.	The Electricity Business places significant reliance on IT infrastructure to manage its extensive infrastructure on which core operations areas of the organisation value chain underpins. It is important that our systems are available to meet the operational needs while ensuring financial sustainability.  The risk of Failure to deliver IT Solutions that supports our key network infrastructure in the business will have widespread consequences for the company and Industry as a whole.
Mitigation	<p>SHEQ Management Systems are established and Implemented corporate wide to include policies, standards and procedures that ensures that employees, Customers and other third parties are protected. Corporate Management's is currently pursuing the ISO Certification in the following Management systems 45001, 9001 and 14001 to reinforce ZESCO's commitment to SHEQ issues.</p> <p>ZESCO continues to invest in training that ensures we maintain safe operating environment. Management has made it mandatory for all employees operating on the ZESCO Network to undergo appropriate training and authorisation certification process. Management has further set a one off Incentive scheme aimed at motivating and rewarding staff who attain authorisation status. In 2018, Management Disbursed K 4m under the Scheme.</p>	Our Board through its technical committee reviews quarterly reports from our three operations directorates (Generation Transmission and Distribution). The board provides oversight on issues related to operations such as planned and unplanned Outages, SHEQ, and System Sustainability and on Investment decisions that are required to sustain the security of the power system.	<p>Corporate management ensures IT solutions integrity by regularly performing controls testing and security patching around our core systems such as those managing our electricity grid infrastructure. The systems are further analysed and audited by the external experts, at least once in a year, to ascertain the operational integrity of the solution.</p> <p>We regularly evaluate the adequacy of our infrastructure and IT security controls, test our contingency and recovery processes, and undertake employee awareness and training.</p>

	6	7	8
	Political and Legal Risk	Stakeholder Management Risk	Regulatory Risk
Risk Description	These risks arise from changes happening in the Political and Legal Environment of the business. These can arise through change of Law and Government policies.	The Risk of Failure to effectively manage and sustain healthy relationship with all our stakeholders can impede the ability to successfully achieve business goals & objectives.	The Tariffs charged to both domestic & wholesale customers are subject to regulatory approval. The risks arise from failure by the regulator to approval the 2018 Domestic tariff applications.
Potential Risk Impact	Government through its Ministry of Energy (MoE) is currently in the process of reviewing the Legal framework that governs the electricity industry (i.e. Energy Regulation and Electricity Act). Furthermore, MoE is in the process of reviewing the current 2008 National Energy Policy, with a view of launching a new policy in 2019. There is a risk that changes in the Legal and Policy framework has potential to impact on ZESCO.	Key effective stakeholder management is critical for us to sustain various key strategic objectives such as <ul style="list-style-type: none"> <li>Domestic Tariff Application – Engage Government, Regulator, Business Associations and Customers.</li> <li>Migration of Both PPA and Domestic Tariff to Cost Reflective – Stakeholder being Communities, Government Regulators, Customers and Legislators</li> <li>Tariff Review of some Independent Power Producers (IPPs) – IPP Boards, Government, lenders, etc.</li> <li>Health and Safety - Stakeholder being Community, Employees, Government.</li> </ul>	In 2018, ZESCO lodged in a domestic tariff application for regulatory review and approval. The application will address the growing disparity between the Tariff Charged by IPPs whom we are buying from, when compared to existing average tariff on the sell side. There is a risk that failure or partial approval of the tariff will constrain our cash flow position further and delay the projected migration path to cost reflective tariffs.
Mitigation	<p>The Board and Corporate management has been engaging with various stakeholders such the Shareholder, Ministry of Energy, the regulator(ERB) and other stakeholders to enable ZESCO as a major player in the industry make contributions to the current policy and Legal review process being undertaken by the government through its Ministry of Energy. The stakeholder engagement will give ZESCO an opportunity to understand and plan, for the future changes from the current business environment in the Industry.</p> <p>Management's key strategic focus is to ensure that ZESCO transitions into an Electricity Hub by 2025, the implementation of our strategy will mitigate against industry structural changes risks that might arise from the implementation of the new Policy and Legal framework in the electricity industry.</p>	<p>In 2018, corporate management undertook many stakeholder and customer engagements based on wide range of activities, such Customer interactions, Safety and Product awareness, sanitisation. The following activities were undertaken to mitigate this risk.</p> <p><b>Town hall Meeting</b> - conducted in conjunction with civic and political leadership in Chilenje and Matero Township and aimed at providing the platform for engagement with community leaders and customers to gain a better understanding on issues affecting them.</p> <p><b>Media interaction</b> with our customers through our Social media handle, Press, intended to respond and inform client on various news stories in the media.</p> <p><b>Community Interaction and Sensitizations</b> - Sanitisation of customers through roadshows on issues of Product Safety, Vandalism and Efficient energy use.</p>	<p>Corporate management intends to undertake stakeholder engagement with all customer groups that will be affected by proposed domestic tariff adjustment that ZESCO is currently proposing. The Interactions will give the company a platform to explain the objective of the tariff adjustment proposal.</p> <p>Our Board and corporate management through its Shareholders, Government and other Stakeholders is engaged into a discussion to revise the wholesale Tariff for customers under Power Purchase Agreement (PPAs).</p>

9

### Strategy Delivery

#### Risk Description

Risk that our strategy is not appropriate to respond to external issues and/or the risk that the strategy is not deliverable due to changes in the external environment.

#### Potential Risk Impact

Successful delivery of our strategy requires serving customers, managing and building infrastructure in a way that satisfies our customers and stakeholders' changing needs in the dynamic business environment.

Therefore, Failure to invest in appropriate responses to changing markets and competitive business environments, and/or build the necessary infrastructures that enhance our capabilities to compete, have the potential to adversely impact our cash flow growth, survival and value goals.

#### Mitigation

Our Board sets and reviews ZESCO's strategy, determining the company strategic direction and confirming the strategic choices made by the business. Regular reviews are conducted to take into account changes in the competitive business environment

Our Board and Corporate management regularly review ZESCO's capabilities and competences required to deliver the strategy and provide leadership on whenever issues that could affect the strategy are identified.

Our board through its investment and finance committee ensures we have a clear financial framework to ensure adequate resources are allocated in accordance with our strategy and it provides oversight on corporate management's external resource mobilisation initiatives.

10

### Financial Processing and Reporting

Risk of errors or losses arising from the processing and reporting of financial transactions for both internal and external.

The global accounting landscape is evolving rapidly, partly due to the coming into effect of new International Financial Reporting Standards (IFRS). Effective January 2018, there is a requirement for all companies preparing the financials based on IFRS to adopt IFRS 9 and 15 fully. During the current transformation, there is a risk that we may fail to comply fully with relevant tax and regulatory requirements.

Corporate management hired a consultant to help build internal capacity and made IFRS trainings available to employees operating in this environment. This approach ensured that management effectively mitigate the risk that will arise from the implementation of the new financial reporting standards.

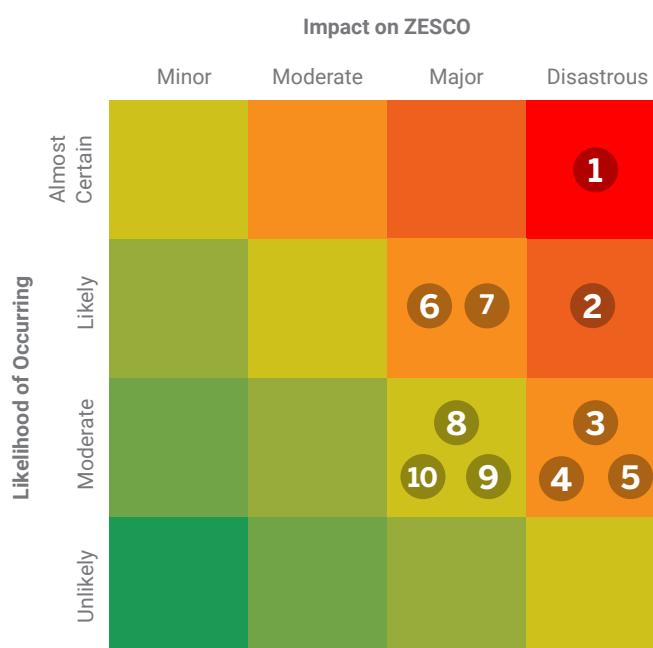
## Risks we are watching

Global and/or major public health crisis - Pandemics	Changes in Law and Policies with Significant on our Business Model - Change in the Market Structure
Global Financial and Economic Crisis	Foreign Currency fluctuations
Risk Specific to the Country	Project Implementation Risk
Hydrological Risk - key hydro infrastructure failure	Global Security Incidents

## Risk Heat Map

Our top risks include;

- Risks and Opportunities that have a direct potential impact on financial risk which relate to revenue, earnings and capital;
- Risks that can impact our achievement of longer-term strategic objectives;
- Risks that can impact our near-to-medium term business plans and our reputation;



# Value through Asset Creation

This section will highlight the new additions during the period under review in line with the value chain.

<b>Generation</b>	<b>52</b>
Small Hydros	52
Other Projects (Operational Sustainability)	53
Renewable Energy and Consultancy Services	54
<b>Transmission</b>	<b>56</b>
System Upgrades	56
Other Projects	56
<b>Distribution</b>	<b>57</b>
Increased Access to Electricity Services (IAES) Project	57
Government Assurance Projects	58
<b>Human Capital Development</b>	<b>60</b>
<b>Social and Relationship Investments</b>	<b>63</b>
Investing in the community	63
<b>Operational Sustainability</b>	<b>64</b>
<b>Environmental Sustainability</b>	<b>68</b>
Hydrology	68
<b>Our Industry</b>	<b>70</b>
Institutional Framework	70
Generation Sector	70
Transmission Sector	71
Distribution Sector	71





We continue to create more value by focusing on new projects and infrastructural upgrades. This is done throughout our value chain, i.e. Generation, Transmission and Distribution.



# Generation

This Directorate is responsible for the Own generation of the company. Other avenues of generation such as renewable energy are also managed under this Directorate.

In 2018, Zesco Limited's own major Power stations were;

- Kariba North Bank Power Station
- Kafue Gorge Power Station &
- Victoria Falls Power Station.

Some of the projects and asset creation activities in the period were;

## Kafue Gorge Lower 750 MW Hydropower Project

The KGL project was part of the Eurobond that the shareholder had granted to Zesco Limited. The objective of this power station is to increase the current supply so as to match the ever growing demand for power within the country and region. This will also contribute to the vision of being the hub of electricity trading by 2025.

Overall project completion in 2018 was at 57%. The project is

scheduled to be commissioned in mid-2020.

## 330 kV Construction Power Supply

The line connects the existing Kafue Gorge Upper Switchyard and the proposed KGL Switchyard and will later serve as an evacuation line/tie line between the two power plant switchyards. The project was completed during the year.

### Power Evacuation

In August 2016, ZESCO Ltd signed an EPC plus Financing Contract with Sinohydro Corporation for the construction of two power evacuation lines, one from KGL switchyard to the Lusaka South Multi Facility Economic Zone (LSMFEZ) substation and the other from KGL to the Lusaka West substation. A third line meant to strengthen the grid will connect the Kafue West and the Lusaka West substations.

The contract was novated to KGL during the year though ZESCO Transmission department has been maintained as the design and construction supervision Engineer. The novation is intended to enable KGL raise financing on a "Project Financing" basis.

Though the Advance payment has not yet been made, following discussions between KGL and the contractor some works have been commenced to avoid significant delays that could lead to a mismatch in the completion of the power plant and evacuation facilities. The contractor has since commenced submission of designs for the towers and the single line scheme, carried out Lidar surveys of the route and refined the line route accordingly.

However, the contractor abandoned the construction works in November 2018 following Senior Lender's reluctance to fund the hydropower project from which financing the contractor was obtaining funds pending payment of the Advance Payment and financial closure for the project.

## Batoka North Bank 1200 MW Hydropower Project

ZESCO intends to develop a 1200MW Hydro-electric Power Station on the North Bank of the Zambezi River at Batoka Gorge. This like the KGL project is supposed to increase our own generation supply into the grid.

During the period under review, the 38th Council of Ministers (COM) meeting held at Victoria Falls town on 7th December 2018 changed the mode of commercial structure for this project. COM directed that the Project be developed under Build, Operate and Transfer (BOT) commercial structure as a single project for both Zambia and Zimbabwe. The process of land acquisition for the Project progressed during the period under review. The project land being acquired covers a total of 489 Ha of land for development of the township for operations staff divided in two adjacent parcels of 250 Ha and 239 Ha each and another 2,255 Ha for construction of the dam, power station and related infrastructure.

## Small Hydros

### Lunzua 14.8 MW Hydro Power Project

The power station was developed to replace the initial 5MW power station. The station was commissioned on 9th April 2015. Remaining Works on Change Order CO-H-01 - Communication Equipment were completed by 31 December 2018 with additional works on the enlargement of water conveyances downstream of the new Forebay natural spillway being completed as well.

### Musonda Falls 10 MW Hydro Power Project

The objective of this project was to upgrade the power station from 5MW to 10MW. This is part of the strategy to increase own generation into the grid. The new units added were put into commercial operation in January 2018.



### Lusiwasi Upper 15MW Hydropower Project

The objective of this power station was to replace the old station and replace it with a newer plant. Overall progress on Main Works was estimated at 84% against adjusted Schedule completion of 90%.

### Lusiwasi Lower 86 MW Hydropower Project

This contract at a price of US\$196,863,679.34 with a 912 days completion period was signed between Sinohydro Corporation and ZESCO and construction was yet to commence at the close of the period under review.

## Other Projects (Operational Sustainability)

### Kafue Gorge Power Station - Upgrade of Distributed Control System (DCS)

Contract awarded to ABB S.P.A of Italy and ABB Zambia (Joint Venture) for the deployment of advanced generation plant management systems that provide improved productivity, plant performance, optimization and high quality plant data.

On-site Main Works commenced with outage of Unit 5 and Unit 6 in September 2018 – re-commissioning and return of Units into commercial operations delayed to January 2019.

#### a) Major Risks/Challenges

- i. Project is financed on open account on balance book.
- ii. Program delay.

Contract financial summary @ at 31/12/2018:

Contract Effective Date	14/08/2015	
Original Completion Date	29/09/2018	
Original Contract Price	Foreign	€ 4,678,167.00
	Local	K 11,39,648.00
Variations issued to Date	Foreign	€ 1,176,100
	Local	K 2,347,604
Revised Contract Price	Foreign	€ 5,854,267
	Local	K 14,087,252

### Victoria Falls Power Station Upgrade of DCS

At Victoria Falls Power Station (VFPS) – the EPC Contract no. ZESCO/097/13 was awarded to Proinelca Power S.L and Laatu Company Limited.

Main Works completed and operational acceptance certificate issued in October 2018.

#### a) Major Risks/Challenges

- i. Project is financed on open account on balance book.
- i. Change order for replacement of old governor system.

Project financial summary as at 31/12/2018:

Contract Effective Date	05/02/2016	
Original Completion Date	09/09/2017	
Original Contract Price	Foreign	€ 2,057,558.24
	Local	K 1,639,383.33
Variations issued to Date	None	





## Renewable Energy and Consultancy Services

Below is a summary of work carried out in 2018 by Renewable Energy Division. The major activities undertaken involved Luapula Hydropower Project, MASEN – ZESCO Renewable Energy project and small hydropower projects. Other activities undertaken were Mixed Use Office Complex and Geothermal Solar and Wind studies. The Renewable Energy feasibility studies are in the following areas:

Category	Estimated Capacity
1 Large Hydropower Projects	700MW
2 Small Hydropower Projects	90MW
3 Solar PV Project	300MW
4 Solar-Battery	500kW
5 Wind Project	150MW
6 Geothermal	TBA

The table below summarizes the details of the activities:

S/N	Project Name	Estimates	Status
1	Luapula Hydropower Projects (Technical Prefeasibility Study)	USD\$796,254 Technical Only	<p>Technical Evaluation completed August 2017. On 4th Sept 2017, financial evaluation was carried out and GIBB-EDF Joint Venture was the best evaluated bid at USD\$796,254.</p> <p>The Options Assessment report was being developed further to prefeasibility.</p> <p>EDF-GIBB were carrying out the following in September:</p> <ul style="list-style-type: none"> <li>-Options multi-criteria analysis</li> <li>-Options Selection criteria</li> <li>-Consultations with ESIA consultant</li> <li>-Power Evacuation assessment</li> </ul> <p>Installation of gauging stations started in October 2018 and was completed in November. Payment to sub-consultant delayed by LPO from ZRA. Consultations with ZRA held and feedback awaited.</p> <p>Potential delays due to ZRA will be about 1 month.</p>
	Luapula Environmental & Social Impact Assessment- ESIA Study	USD \$1.0 Million (ESIA only)	<p>AURECON signed a contract of USD\$381,187.30. Contract was effective 28th August 2018</p> <p>Kick off meeting for ESIA studies done on 28th September 2018</p> <p>High-level screening of transmission routes in the DRC resolved as additional land cover data for the DRC were sourced.</p> <p>Analysis of resettlement impacts of different maximum supply levels of dams.</p>
	Luapula Project Management	USD \$577,200	<p>Project Management Unit Meeting (PMU) due and awaiting DRC to confirm.</p> <p>Project Steering Committee Meeting (PSC) due and awaiting DRC to confirm.</p>
2	KGRTC Small Hydro	USD \$1,105,898	<p>Feasibility completed.</p> <p>Realigning KGRTC and KGL in progress. The PIU is preparing financing model</p>
3	Mujila Small Hydropower Project	Funding for implementation applied to GCF	<p>Prefeasibility Study completed.</p> <p>Application for funding made to GCF awaited.</p> <p>ESIA approved by ZEMA.</p>

S/N	Project Name	Estimates	Status
4	Kapamba Falls Project	USD\$720,000	UNIDO submitted final Report in November 2018. ESIA study in progress but delayed by loss of key staff.
5	Namundela Falls Project	Additional Funding applied to Green Climate Fund and OFID	Application for Funding for full feasibility made to various grant providers. Preliminary ESIA in progress
6	Kalepela Project		UNIDO submitted final Report in November 2018. Power evacuation study by ZESCO was submitted to UNIDO in November 2017. ESIA study in progress and report affected by loss of key staff
7	Mumburuma Project		Application for Funding for full feasibility made to various grant providers. Preliminary ESIA in progress
8	Mululwe Small Hydro	US\$250,000	Prefeasibility study Report for Mululwe to be re-issued to government. Mululwe site handed to government on instruction.
9	Kaombe Small Hydro	US\$300,000	Prefeasibility study for Kaombe completed. Reports circulated. Site handed to KGRTC.
10	Kakonko Small Hydro	US\$300,000	Prefeasibility study for Kakonko completed. Reports circulated
11	Malisa	US\$300,000	Reconnaissance Report completed  Prefeasibility Reports completed. Planning for feasibility roadmap in progress
12	Mbulomotuta	US\$300,000	Reconnaissance Report completed  Prefeasibility Report completed.  Planning for feasibility roadmap in progress
13	Mwansha	US\$300,000	Reconnaissance Report completed  Prefeasibility Report to be completed by 1st April 2019.
14	Coal Fired Thermal plant	TBA	In July ZESCO was informed that EDM signed MoU with other parties on same project. Clarifications expected September 2017. ZESCO has given no objection to inclusion of ESCOM Malawi in the joint development of the project.  Draft agreements with EDM delayed by clarifications on new MoU signed between EDM and Power China.  Power China interest and Tripartite MOU presented to CMM for consideration. Attorney General raised comments in November 2018 and clarifications provided. Attorney General's response awaited.
15	Feasibility for 200MW Solar	USD\$ 1.0 Million	Prefeasibility Study in completed October 2018.  Preparations for 3rd Management Committee meeting to be held in March have started.  A draft agreement was submitted to MASEN for review. Drafts for company's incorporation/Articles of Association. Draft articles were sent to MASEN for review.  ZESCO procurement to deal with Qualification studiers, ESIA studies and MET station installation.
16	Feasibility for 150MW Wind Project	USD\$ 1.0 Million	Preliminary assessments of three sites in progress. MASEN recommended that only one site in Nakonde – Chanka be considered. Later in Dec 2018, two more sites were proposed and ZESCO carried out a reconnaissance of the sites.
17	Mixed-Use Office Complex	USD\$5Million	Procurement process for Consultancy for Architectural, Engineering and Feasibility study in progress. Technical Evaluation completed September 2018. Opening of financial bids approved and now schedule for 1st quarter of 2019.



# Transmission

The transmission system covers over 10,597 km of High Voltage overhead lines in the voltage class 66-330 kV and 147 substations with a combined transformation capacity of 8,237 MVA. This infrastructure is used for transportation of electricity from the generating power plants to the Distributors and end users in the cases of Exports and Mines. ZESCO's transmission system is also interconnected to the Southern African Power Pool (SAPP). There was an investment outlay of over USD 1 billion in the portfolio of active projects in the period under review.

A number of system expansion and reinforcement projects were being undertaken and at various stages of implementation. The projects are aligned to our strategic objectives of Improving power supply security and reliability and becoming a hub for power trading in the region by 2025.

The projects are categorised into;

- System upgrades
- Interconnectors

## System Upgrades

### Improvement of Power Supply to Mpika District

The objective of this project was to increase the capacity of the line to Mpika. The increase would eliminate the low voltages experienced on the line. Kasama Nakonde line is also expected to be connected to this line.

The project was 85% complete as at the year end with all major equipment installed at the new Mpika 330/132/66 kV substation. The project cost is approximately USD 34 million.

### Power evacuation – 15MW Lusiwasi Upper

Construction of transmission infrastructure for evacuation of power from the 15 MW Lusiwasi Upper Hydro Scheme was also completed awaiting finalization of works at the power plant.

### Bulk supply substation in the Lusaka South Multi-Facility Economic Zone (LSMFEZ)

The establishment of this substation in the Lusaka South Multi-Facility Economic Zone (LSMFEZ) was substantially complete with the commissioning of 150 MVA substation. This is a USD 34 million investment that will also facilitate for the connection of two solar PV plants that are under construction by Ngonye and Bangweulu Power Companies with an aggregate capacity of just under 80 MW.

### Power supply to Sinoma (Mphande) Cement Plant

The project for supply of power to the Sinoma (Mphande) Cement plant was completed at a cost of USD 8.2 million and production at the plant commenced in August 2018. Supply has been tapped from the new Lusaka MFEZ substation.

### Kafue Town – Muzuma - Victoria Falls 220kv

This USD 100 million investment was commissioned in September 2018. The objective was to reinforce the system leading into the ZIZABONA line project. The whole line and associated substations

were converted to 330kV operation.

### Kabwe – Pensulo 330 Kv Transmission Line II

This USD 143 million project achieved financial closure during the year. This project was meant to reinforce the Northern corridor so as to improve reliability and quality of supply to the Northern part of Zambia. This is also in line with the vision 2025 of being the hub for electricity trade.

## Interconnector Projects

With the vision of being the hub of electricity trade in the region by 2025, Zesco Limited has been investing in Transmission interconnection lines to make it easier to attain the vision.

Below are some of the projects carried out in 2018 in line with the vision.

### Mozambique – Zambia and the Kolwezi – Solwezi (DR Congo – Zambia)

Feasibility studies this project progressed well during the year under review. The scoping report and Terms of Reference for ESIA studies under the Mozambique – Zambia interconnector were submitted.

### Zambia – Tanzania interconnector project

This project which is the last section of the Zambia – Tanzania – Kenya (ZTK) also gained traction in the year under review.

### 220kV Victoria Fall – Sesheke and 66kV Victoria Falls – Kazungula – Sesheke – Mongu line

In order to improve the performance of the lines, the lines crew carried out works involving installation of Externally Gapped Lightning Surge Arrestors (EGLA). The impact of this investment was almost immediate as the two circuits experienced fewer incidents of outages especially those triggered by lightning in the rain season, compared to the previous years.

## Other Projects

The transmission lines team also carried out works involving erection of two 132kV special, steel lattice towers with +9m leg extensions on the Kazungula – Kasane 66kV line, at the Zambezi River crossing for facilitation of construction works on the new multi-million Dollar bridge linking Zambia and Botswana. This was required to provide the necessary safe clearance for the rail line which will pass under the line. These works were completed in April 2018.

# Distribution

Distribution Directorate links the domestic customers to the transmission system. During the year under review, 957,756 customers were connected representing an increase of 6% from the previous period.

With our mission of making it easy for people to live a better life, there has been a number of initiatives to have as many as possible connected to our grid.

## Increased Access to Electricity Services (IAES) Project

Under distribution in line with the mission, this project is meant to bring as many customers on board so they can benefit from the power generated. This projects makes this possible by constructing lines into areas where Zesco Limited has no presence or indeed upgrade some infrastructure so as to enable the system handle more customers.

Amongst the projects under IAES included;

### JICA Distribution Lines Phase II Scope

This project was to take power to areas where Zesco currently had no presence. The table below shows the assets being created.

Area	Lines (km) 33kV or 11kV & 400V	Transformers
Lot 1 Mpika- Kanchibiya	99	17
Lot 2 Kasama Kachumu	136	12
Lot 3 Mporokoso, Luwingu, Mbereshi	152	18
Lot 4 Mufumbwe, Kabompo, Mumbezhi, Zambezi, Chavuma	128	13
Lot 5 Mwinilunga –Ikelenge	137	6

### World Bank Funded ESAP

This USD24 million project is meant to improve access to electricity in rural areas by subsidizing the cost of connection. This project includes expansion of new electricity connections for low income households and extend and strengthen the grid network to support the additional customers. The project funders are Rural Electrification Authority and Zesco Limited. The Rural Electrification Authority supplements Zesco Limited's efforts in reaching out to areas in the outskirts. During the period under review, 3,000 connections were made under this project.

## Lusaka Transmission & Distribution Rehabilitation Project (LTDRP)

To increase the capacity and improve reliability of power transmission and distribution system in the Lusaka Area. The project scoping includes upgrading of the existing 88kV and 132kV transmission networks, constructing new 132kV transmission lines, constructing/upgrading of various 132/33/11kV substations, constructing new 33kV lines, replacing/upgrading of 33kV and 11kV cables and constructing new 11kV switching stations.

The Government of the Republic of Zambia had received US\$246 million joint financing from the World Bank and the EIB towards the cost of the Lusaka Transmission and Distribution Rehabilitation Project (LTDRP). ZESCO Limited is also to make available US\$40 million towards the same project.

The project is co-financed by the International Development Association (IDA), the European Investment Bank (EIB) and ZESCO. The estimated cost of the project was originally USD 210 Million but the European Investment Bank (EIB) has since increased its share from USD65Million to USD101Million.

### Euro Bond Financed Projects

The Government of the Republic of Zambia (GRZ) allocated USD 69 million for various distribution projects from the Euro Bond it acquired. This was to be used to reinforce the Distribution system.

The table below presents overall progress for each of the components under this portfolio. Percentage completion for the entire portfolio is estimated at 86%.

New Switching stations	100%
New Overhead lines	100%
New Cables	100%
Overhead line Upgrade	100%
Cable Upgrade	100%
Power Evacuation	100%
Upgrade of 33kV Busbar	100%
New substations	85%
Switchgear replacement	79%
Substation Upgrades	70%

#### a) Construction of Burnett Substation

- The project is expected to deliver 2x31.5MVA 33/11kV Substation.
- Overall progress 45%

#### b) Replacement of 11kv Switchgear at Chongwe Main

- The project expected to deliver new 11kV Switch room and new 11kV Switchgear.
- Overall performance 11%

#### c) Replacement of Switchgear at Sub 1581

- 11kV Switchgear drawings approved
- Overall performance 15%

**d) Construction of Chisamba Substation**

- The project is expected to deliver 2x31.5MVA 33/11kV Substation.
- Overall performance 60%

**e) Construction of 33/11KV Transformer Bay Chibombo 132/88/33KV**

- The project is expected to deliver 1x16MVA 33/11kV Substation
- Overall performance 40%

**f) Replacement of Switchgear at Barlastone Substation**

- The project is expected to deliver new 11kV switchgear at Barlastone
- Overall performance 30%

**g) Refurbishment of UTH 617, Maybin A, KKIA Switching Stations and Bauleni Substation 11KV Boards.**

- The Project is expected to deliver New 11Kv switchgear
- Project completed

## Government Assurance Projects

### The Government of the Republic of Zambia selects certain projects to be carried

based on the needs and necessity. Such projects are usually carried out in Chiefdoms, Rural hospitals, rural schools and indeed other rural areas that may need electricity.

During the period under review, there were 40 projects undertaken across 5 provinces. These being Luapula, Muchinga, Northwestern, Southern and Western province.

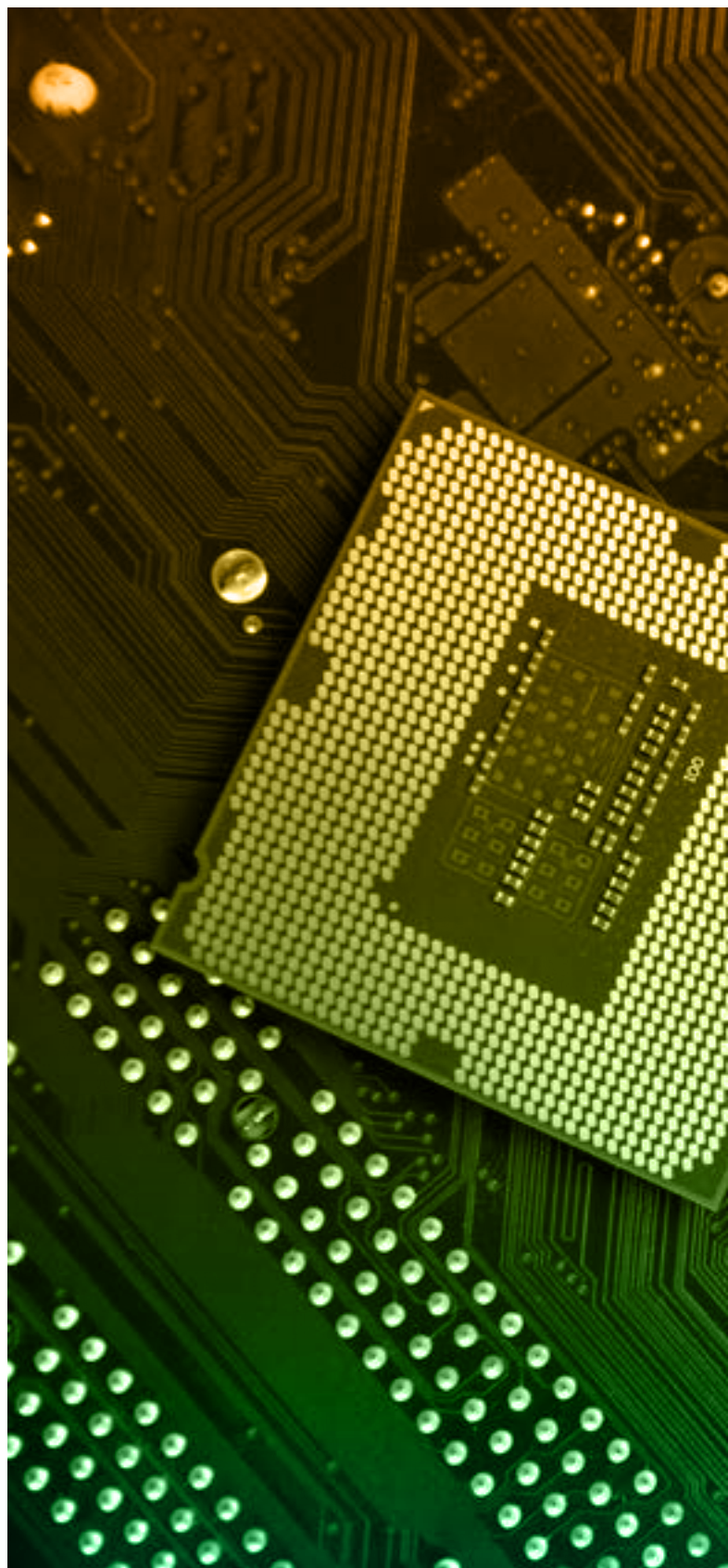
## Corporate Fleet Management

A total of 80 vehicles were received during the 2018 period. Of these, 37 were allocated to Distribution, 5 Transmission, 10 Generation, 19 Corporate and 9 for the Directors.

### ZESCO Training Centre

Enhancement works at the training centre continued through the year. In the same period, new training equipment that was procured from Italy for the Electrical Department at ZESCO Training Centre was installed. In addition, two (02) laboratories and a 66kV Training

Substation at ZESCO Training Centre was commissioned.





## Information Systems

The following were the major projects and works carried out under Information Systems for the period under review:

No.	Project	Deliverables	Impact
1	Upgrade of the 3E/EVG Prepaid Vending Platform	<p>EVG from R3-2-111 to R3-111-273 version</p> <p>3E application upgraded from R11.2 to R16 version</p> <p>Microsoft Windows Server upgraded from 2008 to 2012 version</p> <p>Oracle Database upgraded from 11g to 12c</p>	<p>Improved functionality and higher processing capability</p> <p>Support for STS version 6 required for the TID rollover</p>
2	Implementing twelve (12) new data links and upgrading the old links.	The following stations were effected; Chavuma branch office, Shiwangandu Customer Service, Shiwangandu Small Hydro, Livonia Customer Service, Substations (Kanyama, Mumbezhi, and Msoro) Transmission offices (Vic Falls, and Chipata), Crossroads Customer Services, KNBE woodlands offices	Increasing operational efficiencies and capabilities
3	Transferred eight (8) data communication links from third party service providers (ZAMTEL, CEC Liquid, and SmartNet) to FibreCom.	The following station had the transfer effected; Embassy Customer Services, Luanshya region, Area offices – Chisamba, Mwinilunga, Lukulu, and Kapompo, Branch offices – Zambezi, Mumfwe	Cost effective operational venture as ZESCO saves on recurring monthly bills
4	Installation of a generator at the mini Server Room site in Kitwe	Generator servicing Kitwe Server Room	Provide power redundancy to hence system availability
5	Upgraded wireless network at ZESCO HQ from the inferior 2504 to CISCO Controller 3505	CISCO Controller 3505 installed at ZESCO HQ	Increased network reliability and security on the centrally managed device.
6	Upgraded the new firewall ASA 5555 from the lower appliance on the 3E/EVG prepaid environment	ASA 5555 Firewall installed	Has enhanced antivirus protection and increased intrusion prevention on the core prepaid environment
7	Supply, Delivery and Installation of Oracle Clustered Storage for ZESCO Business Information Systems (BIS) Platform	All BIS applications migrated from the Oracle M8000 servers to the Oracle Supercluster	Improved service delivery to our stakeholders
8	Oracle Financials application upgrade from R12.1.1 to R12.1.3 and corresponding Oracle database upgrade from version 11.1.0.7 to 12.1.0.2	Oracle Financials application and database upgraded.	Improved service delivery to our stakeholders
9	Development and implementation of PSMS (Product Security Management System)	PSMS (Product Security Management System) implemented	Management of Internal tasks, automating of data capture forms, and self-service report generation of various BIS-related reports critical to the department
10	Development and implementation of the Health Care Quality of Service Assessment tool	Health Care Quality of Service Assessment tool implemented	Online Occupation Health Department Assessment Tool with statistical reports for responses from correspondents

# Human Capital Development

## Managing the workforce: Our Strategic Resource

**“Staff trained during 2018 increased by 4% 5,054**

**over 2017 while the investment in human capital skills development reduced by 32% to K18.2 million”**

ZESCO continues to focus on attracting and retaining, developing a staff compliment of skilled and high performing individuals. Because human capital is critical for the achievement of our strategy and business objectives, we continue to place its management as a priority.

Despite the economic environment presenting a number of turbulences in the year, our focus on employee well-being and development remains steadfast.

Employee strength increased in 2018 to 6,988 at the close of the year. This represents an increase of 3.2% over 2017. The increase is mainly on account of recruitments for technical staff conducted during the year.

Staff Headcount	2016	2017	2018	+/_	%
As at 1 January	6,801	6,791	6,772	-19	-0.3
<b>Add:</b> Recruitments	159	172	430	258	150.0
Reinstatements	15	7	35	28	400.0
<b>Less:</b> Resignations	(3)	(3)	(8)	-5	166.7
Deaths	(33)	(24)	(28)	-4	16.7
Dismissals	(29)	(42)	-	42	-100.0
Redundancy	-	-	(8)	-8	100.0
Retirements	(92)	(85)	(102)	-17	20.0
Discharges					
Redundancies	(27)	(30)	(90)	-60	200.0
Expired Contracts	-	(14)	(13)	1	-7.1
As at 31 December	6,791	6,772	6,988	216	3.2

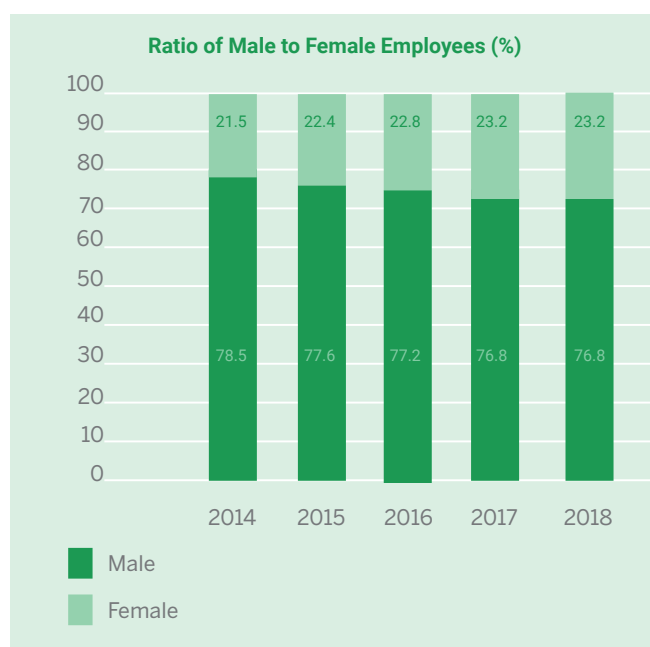
The most significant percentage changes over the previous year were the number of reinstatements, discharges, resignations, recruitments, dismissals and redundancies.

## Human Capital Profile

The corporation's profile of staff provides significant reassurance for the medium to long term horizon with majority staff being in the most energetic age ranges and only less than five percent (5%) outside that range. A marginal drop was recorded in the 25-35 year range of 3% while the 36-45-year range had an increase of 2% over 2017.

Age Range	No	%
19-24	49	1
25-35	2,337	35
36-45	3,010	42
46-55	1,480	21
Above 56	112	1
Total	6,988	100

The proportion of males to females in ZESCO on the other hand, has remained static over the past year.



The movement over the last three years in the distribution of the Labour is as shown below:

Category	2018		2017	
	No	Percentage	No	Percentage
Executive Management	9	0.13%	9	0.13%
Senior Management	379	5%	365	5%
Middle Management	1,496	21%	1,390	21%
Supervisory staff	793	11%	816	12%
Skilled/Junior Supervisory Staff	1,430	20%	1825	27%
Semi-Skilled Staff	2,024	29%	1704	25%
Non - Skilled staff	857	12%	663	10%
Total	6,988	100%	6,772	100%

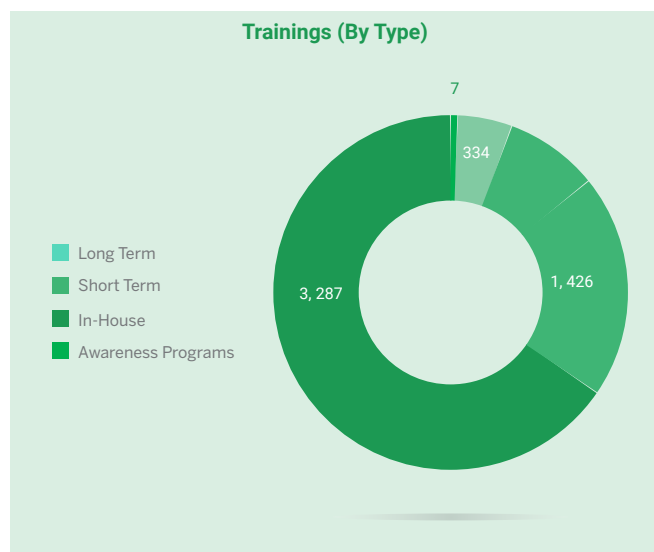
The major changes in the labour distribution occurred in the semi-skilled staff which increased by 320 to make-up 29% of the establishment as at the end of 2018. The non-skilled staff also increased by 12%. Middle and Senior Management recorded an



increase of 120 to make up about 28%. A significant drop was recorded in the supervisory and the Junior supervisory staff. A total of 518 employees were lost in these categories through either resignations, deaths, dismissals, retirements, discharges, expired contracts or promotions. The semi-skilled staff that have been recruited or re-instated will eventually develop to the subsequent category and fill the gap.

## Human Capital Skills Development

We are not just intent on attracting skilled staff but rather to ensure that we continually develop and enhance the skills of our team. Management through Human Resources Development (HRD) continues to place a premium on employee development and therefore a number of trainings, both short and long term were facilitated during the year. A total of five thousand and fifty four (5,054) employees benefited from these interventions. This represents a 4% increase over 2017 (4,876 employees) while the total expenditure dropped to K18.2 million. Of these three hundred and thirty four (334) were sent for long term trainings, one thousand four hundred and twenty six (1,426) for short term trainings, three thousand two hundred and eighty seven (3,287) attended in-house trainings while seven (7) attended awareness trainings.



The distribution of the trainings by type is as illustrated above.

A comparison of 2018 with 2017 numbers is shown below.



The number of staff who graduated during the year were as follows

Number Trained	2018	2017
Bachelors Degree in Civil Engineering	1	1
Degree in Electrical & Electronics	7	1
Other Courses	-	8
Electrical Fitters Course	7	-
Diploma in Electrical Engineering	8	4
Advanced Certificate in Electrical Engineering	3	4
Overhead Lines Course	22	19
Cable Jointing Course	7	10
<b>Total</b>	<b>55</b>	<b>47</b>

The total training cost for the year reduced to K18.2 million due to austerity measures implemented. This representing a drop of 32% over expenditure in 2017 (K26.6m).

Additional support was provided by the corporation during the period under review. 142 employees were fully sponsored to pursue Bachelor's Degrees and Diplomas in various fields. Further, 99 employees were given study leave to further their studies.

## Graduate Assessment

The corporation has continued with its graduate assessment programme (GAP) in order to increase efficiency and effectiveness in the provision of quality service to our valued customers. Below is a summary of the exercises conducted:

Graduate Assessment Program (GAP)	2017	2018	-/+
Number of sessions held	5	2	-3
Number of candidates assessed	22	15	-7
Number of Candidates who passed	15	13	-2
Number of candidates with extensions	7	2	-5

## ZESCO Training Centre (ZTC)

Provision of training services at the training centre continued through the year. The trainings were to ZESCO employees and non-ZESCO employees. The courses on offer at the centre include Overhead Lines Construction, Cable Jointing and Electrical Fitting. The programs for non-ZESCO employees are mostly short-term tailored courses. A total of 93 students under the ZESCO sponsorship programme pursued long term courses. A total of 22 students were studying Electrical Fitters Course, 23 were in the Cable Jointing class whilst 48 were studying Overhead Lines Construction course.

## Staff Health Services

ZESCO has continued to provide health services around the country to its employees, their immediate families and communities in the areas around which it operates.

These clinics are mainly in Lusaka at the Head Office, Ndola, Kariba, Lusiwasi and Musonda Falls Power Stations. The related statistics are presented below.

Occupational Health Statistics	2018	2017	2016	(+/-)
Daily Attendance	25,683	27,784	28,744	-8%
Man hours lost (Sick off)	29,575	33,365	38,715	-11%
Medical check-ups	127	699	130	-82%

In addition to these ZESCO facilities, the corporation has entered signed Memoranda of Understanding (MOUs) with various health institutions to extend medical cover to ZESCO employees. The institutions include public and private hospitals.

## Major Occupational Health Activities During the year

The Occupational Health Department (OHD) developed a Cholera response strategy. A Cholera Prevention Adhoc Committee was set up to coordinate prevention activities in the Corporation. The fight against Cholera was a success due to the high level of adherence and compliance to laid down procedures by staff.

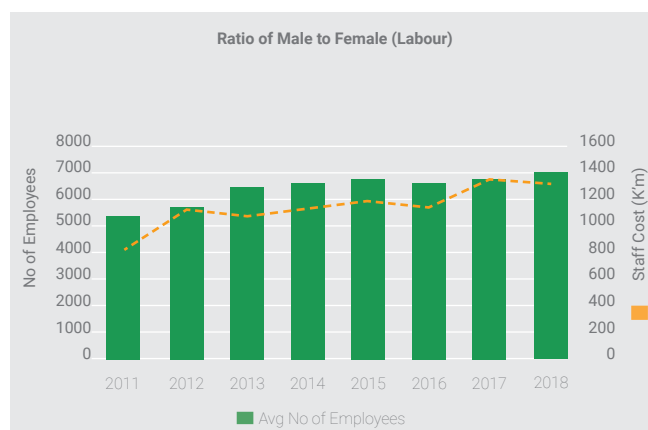
The Occupational Health Department conducted basic First Aid orientation programme for the bush clearing team leaders and their coordinators under Transmission South. The aim of the programme was to orient them on how to use the First Aid box kits. The programme was part of preparations for 2018 wayleave bush clearing season.

The Department also successfully conducted Free Wellness clinics for employees in the third quarter at Ndola and Lusaka Staff clinics. During these clinics, Nine (9) external Health Service providers showcased their services by participating in the Wellness clinics. The showcased services include dental and ocular.

Further, Occupational and Community Health awareness campaigns on the Kafue town – Muzuma – Livingstone 220/330KV upgrade Transmission Line project which is ongoing were conducted. The induction on Occupational Health awareness campaigns for the Construction workers and the communities on the Lundazi/Chama project commenced and is ongoing.

## The Future

Because the role of staff remains paramount, ZESCO remains committed to the development of staff through trainings, exchange programs and adoption of technology in its operations. Management affirms its support for on-going staff professional development. Staff development to us is an investment rather than a cost.



# Social and Relationship Investments

## Investing in the community

We value our role as a responsible corporate citizen and strive to contribute to the betterment of the community in which we serve in whichever way possible. This is evident in the mission we have adopted, which is, “making it easy for people to live a better life.” We not only see customers in the communities we operate in but strategic partners for the provision of an exceptional service and development of the nation thereby bettering life.

**“We not only see customers in the communities we operate in but strategic partners for the provision of an exceptional service and development of the nation thereby bettering life.”**

The notable activities undertaken include sponsorship of the inaugural Northern Province Exposition, and the Central Province Trade Exposition where we participated as a key exhibitor showcasing the upcoming Lusiwasi Lower Power station which is expected to increase the province's economic activity.

A number of social activities were also conducted. During the fourth quarter, corporate management participated in a 9.5km health run with the president to encourage healthy lifestyles as a way of spurring productivity and efficiency. Further, corporate management took time out of their regular roles to personally serve customers during the customer service week. They engaged in roles such as being part of faults, new installations, cashiering and leading a facility tour for our customers to the Kafue Gorge Lower site.

ZESCO women donated various items and beds to the children's sickle cell ward at the university teaching hospital (UTH) as part of the women's day commemoration.

The company partners with Traditional Chiefs and other Vulnerable organizations in wayleave clearing contracts for medium to low voltage distribution lines. Further, the company engages the local youths from respective communities to participate in wayleave clearing of high voltage transmission lines. The value added to the communities in uplifting the lives of the vulnerable in society through these partnerships were K66 million in 2018 (2017 K56.2 million). This ultimately contributes to poverty alleviation and national development.

Our participation in the community also includes the sponsorship of traditional ceremonies. This is aimed at assisting in preserving some of the valuable cultural values that the traditional ceremonies offer to society.



Some of the traditional ceremonies supported during the year include the following:

- Nc'wala
- Ukusefya Pa Ng'wena
- Kulamba
- Mutomboko
- Mambwe Lungu
- Kunda Malaila
- Banamainga
- Matomolo
- Mutamfya Nsala
- Musubilwa Mpemba
- Ukosomona
- Amabila
- Chisemwa Chalunda
- Nsakwa Yaba Kaonde
- Lunda Lubanza
- Busoli Royal Shamifwi
- Kulamba Kubwalo

As a responsible corporate citizen ZESCO also ensures that it also compensates all project affected persons (PAPs) in all its project sites. According to the world bank's resettlement policy framework (2015), a PAP is a person or household directly affected economically or socially by the involuntary loss of land, shelter, assets or access to assets or loss of income sources or means of livelihood whether or not the affected person must move to another location. This is through providing monetary compensations to such people and also through infrastructure developments such as building schools and health centers for such communities. Over K15.3million was spent on compensations in 2018.

In the recent years, the company has also engaged qualifying local entrepreneurs as third party vendors (TPVs). This allows the vendors to sale electricity units on behalf of ZESCO in areas where the presence is limited or completely absent for a commission. This has helped to broaden our reach while significantly providing much needed cash inflows to support these entrepreneurs. A total of K43m was spent on commissions by the entity in 2018 compared to K34m in 2017. As a corporation we are committed to supporting and investing in more of such partnerships in the coming years and contributing to making life better wherever ZESCO is present.

# Operational Sustainability

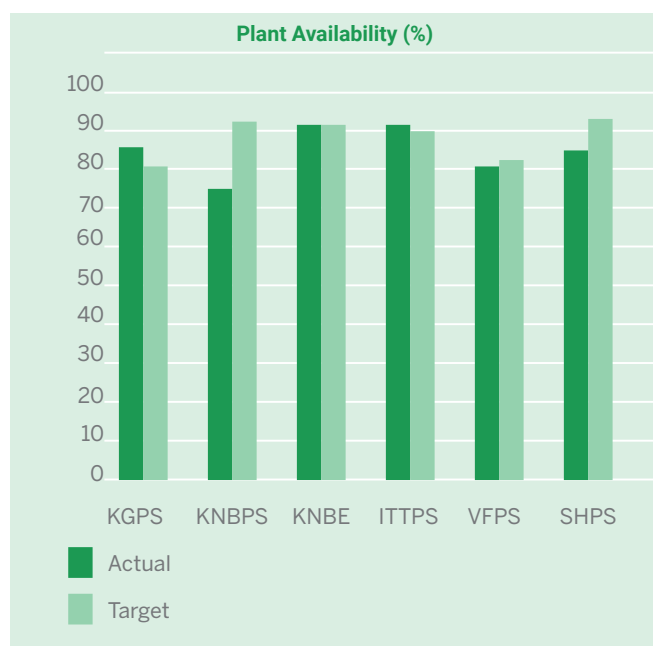
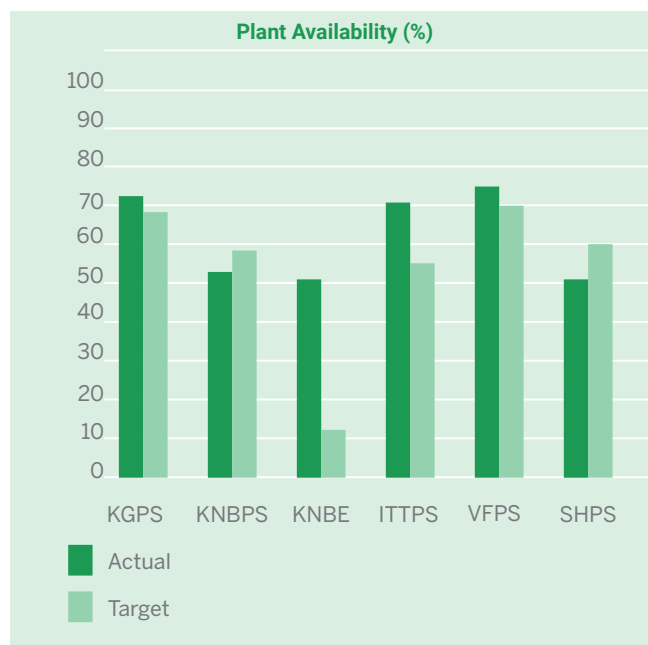
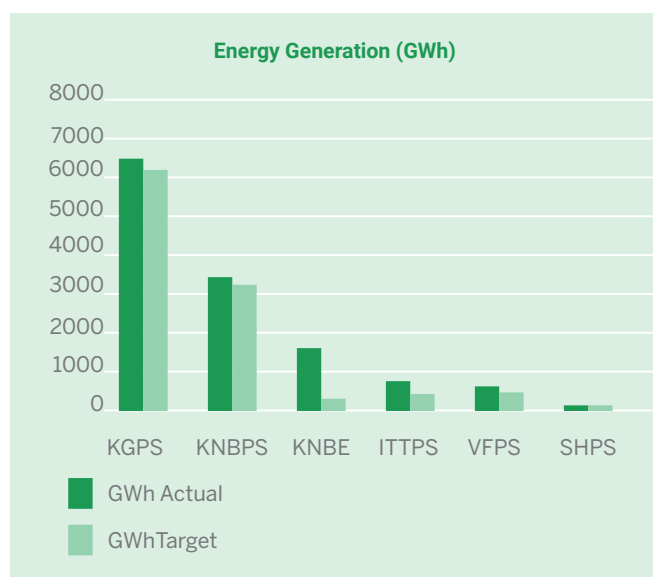
## Generation System Performance

Generation performance for the year was outstanding with a total of 10.8 GWh generated from the Power Stations. This was against a budget of 11,743 GWh which was 14% above budget.

The generation plant availability was at **87%** compared to 72% in 2017 with an average Capacity Factor of **59%** and 42% in 2017. At Kariba North Bank, water utilization was 5% below the annual allocation. Power generation at Victoria Falls and the Small Hydro power stations was normal.

All the stations apart from the Small Hydros exceeded the targeted plant availability. This mainly due to the normal to above normal rainfall resulting in high water levels in the reservoirs.

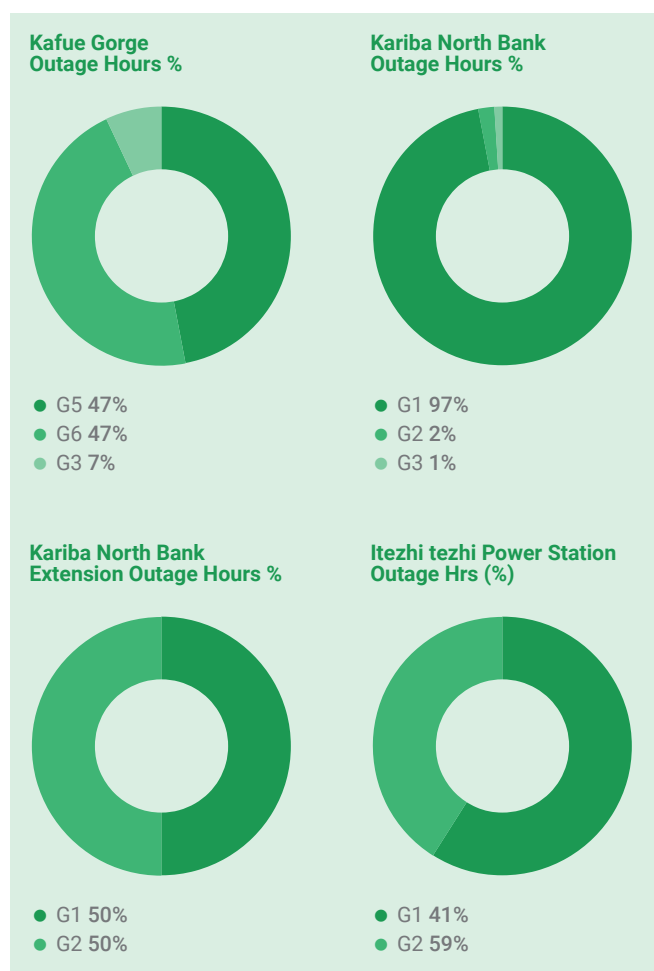
Key		
KGPS	Kafue Gorge Power Station	Small Hydro Power Stations
KNBPS	Kariba North Bank Power Station	Lusiwasi
KNBE	Kariba North Bank Extension	Chishimba
ITPC	Itezhi tezhi Power Corporation	Musonda
VFPS	Victoria Falls Power Station	Lunzua
SHPS	Small Hydro Power Stations	Shiwangandu



## Planned Outages

Planned outages were carried out to facilitate scheduled maintenance such as desilting of water ways, commissioning of plants and systems, and safety inspections.

Below are the graphical representations of the planned outage hours as a percentage of the total planned hours.



## Transmission System Operational Performance

The transmission system infrastructure facilitates the efficient and reliable evacuation of electricity to bulk supply points from power plants and external sources within the Southern African Power Pool (SAPP).

This system spans 10,597 km of High Voltage overhead transmission lines in the voltage class 66-330 kV and 147 substations with a combined transformation capacity of 8,237 MVA.

### System Stability and Security

The performance of the transmission system was stable at the Average Equipment Availability Index (AEAI) of 99.62% for transmission lines and 99.33 % for power transformers.

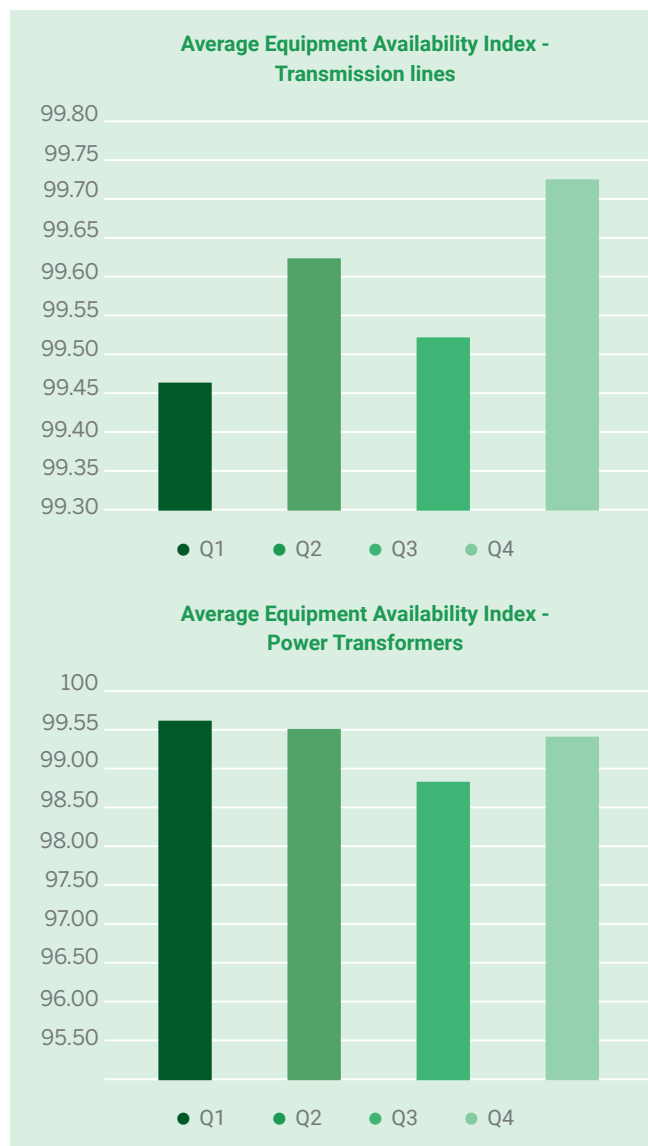
The Zambian grid did not experience any total blackouts of the

system during the period under review. However, there were some significant disturbances that led to loss of load in certain cases.

The notable faults include:

- Failure of the 90 MVA, 330/33/11 kV transformer at Lumwana substation;
- Failure of the isolator 303 support insulator on Kabwe line 3 at Kitwe substation and
- Failure of yellow phase insulator on tower 455 on the Kabwe – Pensulo line.
- Unsatisfactory performance of the 220 kV CEC/SNEL interconnector due to the malfunctioning of convertor.

The AEAI for the four quarters of 2018 for transmission lines and power transformers is shown in Figures 1 and 2 respectively below:





## System Demand, Operations and Maintenance

The system maximum demand for the year was at 2,236.98 which occurred in June. The transmission losses recorded in the year stood at 5.13 % which is better than the ERB performance index threshold of 6%.

During the year, scheduled time based maintenance of transmission system infrastructure was conducted with an average compliance of 89.87 %. Other maintenance activities undertaken were of preventive, corrective and condition based type.

## Distribution System Performance

The network performed better than in the previous year with one of the four indices (ASAI) being consistently achieved in both financial years. However, the KPIs associated with duration of interruptions were off the targets. To improve reliability of supply, there is need to focus on solutions that would reduce the duration of interruptions.

## Diesel Generation Performance

Following the connection of Northwestern Province of Zambia to the National Electricity Grid, electricity supply continued in a few remote places that depend on diesel power stations. The number of such stations has reduced to only four and two of these being supported by power imports from Malawi.

This reduction has resulted in an improvement in the sales as a percentage of the cost from 2016

Diesel Generation Performance			
	2018	2017	2016
Generation (GWh)	5.831	8.3643	19.249
Litres (Consumed)	1,588,298	2,389,889	5,670,453
Cost (K 'millions)	16.91	21.277	48.687
Sales (K 'millions)	3.001	2.185	7.728
Sales as a percentage of Costs	18%	10%	16%

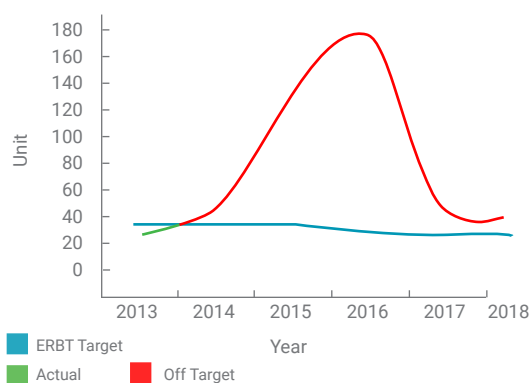
## Distribution System Reliability Indices

The system reliability was generally better than 2018 with the average availability indices being favorable. This is for the period from 2011 against Energy Regulations Board (ERB) Targets. However, the durations for the outages were all adverse and consequently require to be improved. To improve reliability of supply, there is need to focus on solutions that would reduce the duration of interruptions.

A summary of the performance is detailed in the following charts:

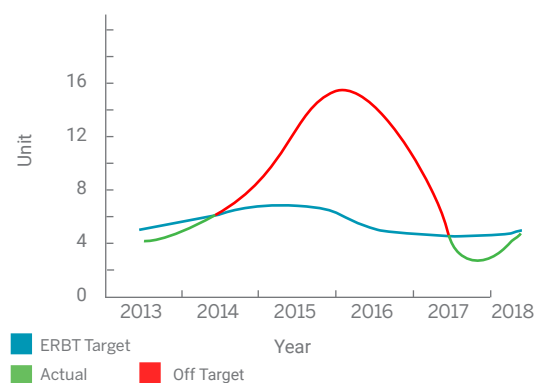
#### SAIDI

System Average Interruption Duration Index.



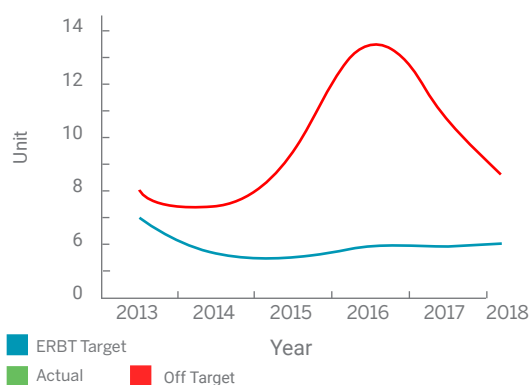
#### SAIFI

System Average Interruption Frequency Index.



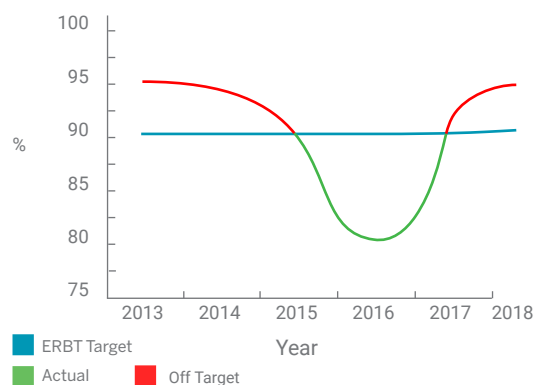
#### CAIDI

Customer Average Interruption Duration Index.



#### ASAI

Average System Availability Index.



## Major Internal Activities to Improve Distribution System Operations

To enhance the operational performance of the distribution system maintenance works continued to be carried out during the year. These involved the replacement and refurbishment of switchgear, transformer and line equipment.

Some of the notable works include the following:

Works to rehabilitate the Lusaka Transformer Workshops are almost

complete standing at 98%. The last set of portable instruments have since been delivered. Hands-on training of the employees commenced on 1<sup>st</sup> November 2018 and was expected to last until the end of January 2019.

Similar progress has been recorded on the rehabilitation of the Ndola Transformer Workshops. The completion of the two workshops is expected to cut down on outages related to transformer faults and enhance the maintenance of transformers. Approximately **728** distribution transformers were received at the Lusaka and Ndola Transformer Workshops while **332** were repaired. **515** Transformers were tested for external clients in the period under review.

# Environmental Sustainability

## Hydrology

Generally Cumulative rainfall performance during the year under review (2017/18 season) was normal to above normal rainfall. Most parts of the country had received normal to above rainfall except some areas of eastern parts of the country. The Kafue and Zambezi river systems lay in these catchments where the normal to above rainfall was received. Hence there was sufficient water inflows into ITT dam - which led to the spilling at Kafue Gorge. At Lake Kariba, the reservoir level appreciated considerably compared to the previous year.

The Itzhi-Tezhi reservoir reached a maximum of 1030.46 metres above sea level (m. ASL) on 26 May, 2018. The design maximum and minimum water levels for Itzhi-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. The water levels at ITT and Kafue Gorge dams on 31 December 2018 were 1024.32m ASL and 976.34m ASL respectively, compared to the previous year's corresponding levels of 1023.47 m and 975.79m ASL respectively. At the Kafue Gorge dam, 2,628 Mm<sup>3</sup> of water was released through the spillway gates.

At Lake Kariba, the maximum level attained during the year under

review was 486.90m above Kariba Datum which occurred on 10 July, 2018. On 31 December 2018, the water level in Lake Kariba was 482.38m Kariba Datum. The minimum water level is 475.50 m. The minimum water level during the year under review was 480.44 m Kariba Datum which occurred on 01 February 2018. There was no water released through the spillway gates during 2018.

The end of year water levels at Itzhi-tezhi was within the desired region, whereas that of Kariba was slightly lower than the desired level but had improved significantly compared to the end of year level in 2017.

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 95% of the allocation. Power generation at Victoria Falls power station was good as expected due to the available water. Adequate water was available for power generation at the Small Hydro power stations during the year under review.

The rainfall forecast for the 2018/19 rainy season indicates a likelihood of normal to below normal rainfall for most parts of the country. Correspondingly, the Zambezi River Authority (ZRA) reduced the annual allocation from 22.5 Bn. m<sup>3</sup> in 2018, to 19 Bn. m<sup>3</sup> for 2019 equivalent to 500MW average generation throughout the year.





The target average generation have been pegged at 500 MW at Kariba and 836 MW at Kafue Gorge.

## Environmental and Social Safe Guards Under Transmission

The following Environmental and Social safeguard documents have been considered for conformation to the European Investment Bank (EIB) Environmental and Social Standards, further to the approval by the World Bank (WB) and Zambia Environmental Management Agency (ZEMA):

- i. The Environmental and Social Impact Assessment Report (ESIA) for the Greenfield Segment; Water Works Substation – LSMFEZ – Chawama – Chilanga – Lusaka West Substation was submitted to ZEMA and Aurecon, the Lenders Engineer on the Project, to conform to the European Investment Bank (EIB) Environmental and Social Standards. ZEMA has since reviewed and given conditional approval and Energy Regulation Board (ERB) in July 2018. However, this approval is subject to full compensation of all affected persons and preparation and submission of a RCAP.
- ii. The Resettlement and Compensation Action Plan for the Greenfield Segment Water Works Substation – LSMFEZ – Chawama – Chilanga Substation was submitted to ZEMA for review by Aurecon, the Consulting Engineer on the Project, to conform to the European Investment Bank (EIB) Environmental and Social Standards. Feedback was given and ZESCO is currently working on the comments. The World Bank has not objected to the submitted ESIA.

iii. The Environmental and Social Impact Assessment Report (ESIA) for the Three Lines; Avondale – Ibex Hill, Chawama – Chilanga, and UNZA – Roma was cleared by ZEMA on condition that they prepare and submit the RCAP as a mitigation for the relocation impacts identified. ZESCO is still preparing a Scoping Meeting for the RCAP. The RCAP Scoping Meeting has been pushed to January, 2019.

## Rehabilitation of Existing 132kV Lusaka Ring

- i. Environmental Impact Statement (EIS) approved by ZEMA in March, 2013.
- ii. Wayleave inspections and notification exercise involving LTDRP Wayleave Inspection Team and ZESCO Security was carried out. The PAPs have complied up to 99%. The wayleave for the Ring is safe for commencement of construction.
- iii. The Environmental and Social Impact Assessment Report (ESIA) for the Three Lines; Avondale – Ibex Hill, Chawama – Chilanga, and UNZA – Roma was cleared by ZEMA and final copies yet to be submitted. ZEMA gave a condition that ZESCO commence preparation of the RCAP as soon as the final EPB is submitted. ZESCO is still preparing a Scoping Meeting for the RCAP. The RCAP Scoping Meeting has been pushed to January, 2019.
- iv. The consolidated final RCAP for the Leopards Hill–Avondale–Roma–Lusaka West –Coventry–Waterworks Substation was inspected by ZEMA in December, 2018. ZESCO awaits the written feedback on the matter



# Our Industry

## Institutional Framework

Ministry of Energy (MoE) is responsible for policy direction, development and management of the energy sector through the following statutory bodies;

- Energy Regulation Board (ERB)
- Zambezi River Authority (ZRA)
- Rural Electrification Authority (REA)

Industry Legal Framework.

There are three major statutes that govern the Zambian Electricity Supply Industry (ESI) in conjunction with other statutes that supports the sector.

In order to manage some of the inherent deficiencies that the current legal framework has, the MoE is undertaking a review process of the major statutes, to come up with amendment bills for enactment. These changes will affect the ESI business landscape such as

- Strengthening the mandate of the Energy Regulator
- Facilitate the adoption of the Open Access Regime in the country.

The three major statutes that currently govern our Zambian ESI are:

**Energy Regulation Act** - established the Energy Regulation Board, as a body corporate, whose primary role is to regulate players in the energy sector.

**Electricity Act** - provides for the legal framework to regulate the generation, transmission, distribution and supply of electricity.

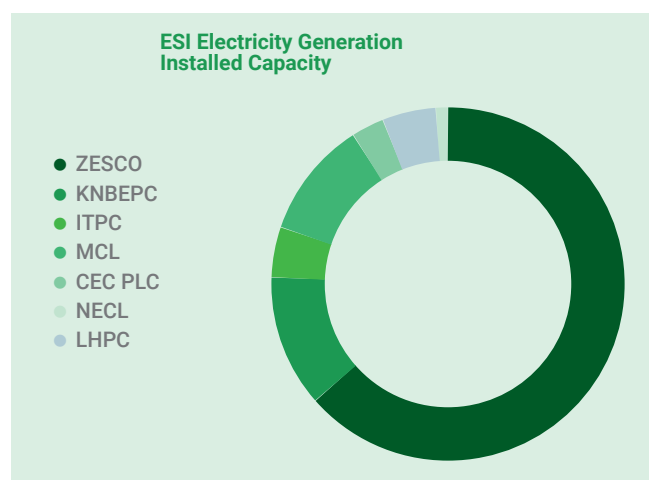
**Rural Electrification Act** - established the Rural Electrification Authority whose primary role is to provide increase rural access to electricity.

The key sectors in the ESI are Generation, Transmission and Distribution.

## Generation Sector

The ESI has a total installed capacity 2,889MW. The main players in the industry include:

- ZESCO Limited;
- Kariba North Bank Extension Power Corporation (KNBEPC) Limited;
- Maamba Collieries Ltd (MCL);
- Itezhi Tezhi Power Corporation (ITPC);
- Copperbelt Energy Corporation Plc (CEC);
- Ndola Energy Company Limited (NECL);
- Lunsemfwa Hydro Power Company (LHPC);



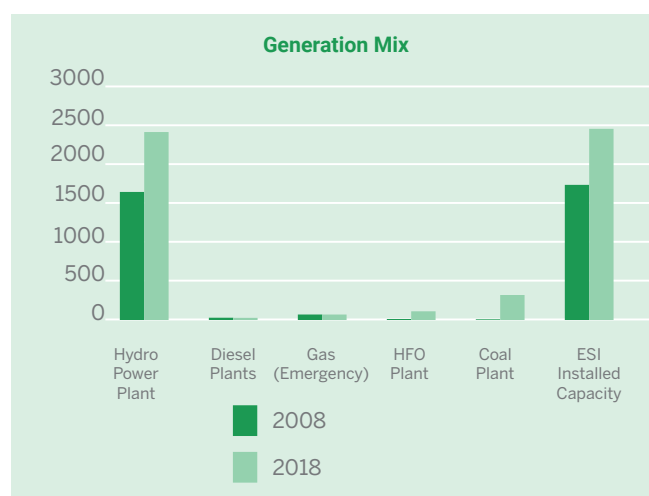
## Generation Mix

The generation mix has significantly improved from 2008 when the current energy policy was developed.

At that time, the ESI was predominantly hydro dependent at 95%. The contribution from other generation mix accounted for 5%.

Currently, the dependence on hydroelectricity has reduced to 83% and private sector participation improved the industry generation mix resulting in 17% growth in alternative electricity generation means. The new sources, which have contributed to this landscape transformation are Thermal (Coal fired) and Heavy Fuel Oil Plant.

The figure below shows the current generation mix in the ESI benchmarked against the 2008 position.



A number of other major generation projects aimed at growing the electricity industry's generation sector and making it more resilient are at various stages of implementation.



## Transmission Sector

The transmission infrastructure has five voltage categories i.e. 330kV, 220kV, 132kV, 88kV and 66kV. The power system forms part of the synchronized interconnected power systems of the Southern Africa Power Pool (SAPP).

ZESCO's National Control Centre under the Systems Operation and Power Trading divisions takes the provisional role of System Operator (SO) responsible for Grid and Energy Management in the sector. Some of the responsibilities of the SO includes:

- Ensuring short-term reliability of the Interconnected Power System (IPS),
- Controlling and operation of the transmission systems,
- Dispatching generation and/or balancing supply and demand in real time on the Zambia grid,
- Overall system operations, monitoring and coordination of different players in the sector.

### Key Players

Currently we have four players in the transmission sector namely: ZESCO, CEC, MCL and LHPC.

#### ZESCO

In 2018, ZESCO owned a substantial share of the transmission infrastructure in the sector. The transmission infrastructure spans 10,597 km of high voltage transmission lines in all the voltage classes (i.e. 330-66 kV) and 147 high voltage substations with a combined transformation capacity of 8,237 MVA.

ZESCO transmission infrastructure is key in the evacuation of electricity from various generation stations to load centres across the country and provides interconnection to utilities within SAPP.

#### CEC

CEC operates the transmission network in the Copperbelt province of Zambia, which transmit power to mining entities and ZESCO for its domestic customers.

CEC Transmission infrastructure spans 1,005km of high voltage transmission lines (220-66kV) and 42 substations.

#### MCL and LHPC

MCL and LHPC own small sections of transmission lines that evacuate electricity from their respective power plants to the ZESCO Grid at the point of interconnection.

Several key projects are at various execution stages and these will expand and reinforce the transmission capacity in line with the Seventh National Development Plan.

## Distribution Sector

The Distribution Sector is also a fully regulated market with two distribution companies providing electricity supply to residential, commercial, social and maximum demand customer groups. The major players are:

- ZESCO Limited – with the largest share of the customer base around 99.7%.
- North Western Energy Corporation (NWECC) - accounts for the remaining 0.3%.

There are a few Off-Grid solutions such as Zengamina (North Western Province) and Chinsanka (Luapula Province). The extent of the off grid solution's contribution to the ESI is yet to attain significant levels.

### Sector Overview

The Zambia Electricity Supply Industry is still growing, as there is room for growth in all the sectors. Highlighted below are some of the opportunities for growth by sector:

#### Generation

The generation sector has a lot of growth potential to help expand the current industry's installed capacity.

**Hydro Generation** – The country has a hydro generation potential of about 6GW with only less than 50% developed. Currently there are two projects in advanced stage of implementation that will add 765MW in the next 24 months.

**Renewable Energy** – Zambia has an approximately 68% of sunshine hours annually with an average irradiation of 5.5kWh/m<sup>2</sup>/day. These conditions provide potential for development of solar photovoltaic projects. Currently there are two projects under development in the Lusaka Multi Facility Economic Zone (LMFEZ).

#### Transmission

The sector is taking advantage of the country's centralized location in the region by developing robust transmission corridors and interconnection capacities with bordering countries.

#### Distribution

According central statistical office and ERB, the country has an estimated number of households of about 3 million with only 31% accessing electricity. The rural household electrification is at 4.4% whereas the urban household's electrification stands at 67.3%.

# Financial Statements

## Group Financial Statements

For the year ended 31 December 2018

The Old Zambian Kwacha (ZMK) is obsolete. It was replaced with the new Zambian Kwacha (ZMW) on January 1, 2013.  
One ZMW is equivalent to 1000 ZMK.

<b>Report of the Directors</b>	<b>74</b>
<b>Statement of Responsibility for the Annual Consolidated Financial Statements</b>	<b>76</b>
<b>Independent Auditor's Report</b>	<b>77</b>
<b>Consolidated Statement of Profit or Loss and other Comprehensive Income</b>	<b>79</b>
<b>Consolidated Statement of Financial Position</b>	<b>80</b>
<b>Consolidated Statement of Changes in Equity</b>	<b>82</b>
<b>Consolidated Statement of Cash Flows</b>	<b>83</b>
<b>Notes to the Consolidated Financial Statements</b>	<b>85</b>





# Report of the Directors

The Directors present their report and audited consolidated financial statements for the year ended 31 December 2018.

## Principal Activity

The principal activities of the ZESCO Limited ("Company") and its subsidiaries, Kafue Gorge Lower Power Development Corporation Limited, Batoka North Bank Power Corporation Limited and Kariba North Bank Extension Power Corporation Limited, together the "Group" continued to be the generation, transmission, distribution and supply of electricity, locally and in the region. The Group through its joint venture Itezhi Itezhi Power Corporation Limited and associates Zambia Electrometer Limited and El Sewedy Electric Zambia Limited also manufactures electricity meters, compact fluorescent lights and distribution transformers ranging from 25KV to a maximum of 5,000KV (5mva).

Registered Office And Principal Place Of Business

Stand 6949, Great East Road

Lusaka

## Results And Dividends

The profit for the year after taxation amounted to K1, 346 million (2017: Profit: K771 million). The Directors do not recommend payment of a dividend in respect of the year ended 31 December 2018.

## Directors

The Directors who held office during the year 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

## Corporate Governance

The Board continues 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

There was a change in the Group's property, plant and equipment during the year resulting from investments made in capital and operating projects. The Group invested a total of K13.4 billion (2017: K4.0 billion).

## Intangible Assets

During the year the Group did not acquire any software (2017: KNil).

## Exports

The value of electricity exports by the Group were K1, 063 million (2017: K729 million).

## Donations

The Group made donations during the year amounting to K5.8 million (2017: K3.4 million).

## Research And Development

The Group did not carry out any significant research and development activities during the year.

## Share Capital

The Group's authorised share capital increased from 200,000,000 to 2,500,000,000 shares at par value of K2 during the year. The issued and fully paid share capital increased from 96,894,542 to 1,412,462,015 at par value of K2 resulting in total value of shares of K2.8 billion.

## Employees

The average number of employees during each month of the year was as follows:

	2018	2017
January	6,872	6,818
February	6,906	6,828
March	6,915	6,831
April	6,911	6,819
May	6,904	6,820
June	6,899	6,829
July	6,903	6,819
August	6,901	6,824
September	6,929	6,814
October	6,920	6,810
November	6,917	6,800
December	6,988	6,791

The total remuneration and other related staff costs paid to the employees during the year was K1, 452 million (2017: K1, 525 million).

## Key Developments During the Year

- the generation of electricity during the year reduced minimally to 10,847 GWh, from 10,854 GWh in 2017. Generation at Kafue Gorge Power reduced by 11% due to the replacement of 330kv power cables and installation of control systems, which resulted in shutting down of two generation units from 3 September to 31 December 2018. However, generation at Kariba North Bank, Victoria Falls and Small Hydro Power Stations increased by an average of 30%, mitigating the reduction at Kafue Gorge Power Station. The contract for emergency power from Karpowership expired in the first quarter of 2018 and there were no subsidy disbursements by Government towards the emergency power

imports. To balance the load, the Group continued to buy power from Independent Power Producers which resulted in increased volume power purchases by 63% from 2,735 GWh in 2017 to 4,444 GWh in 2018.

- during the year, the contractor Sinohydro Corporation Limited has made about 57% progress in the construction of the 750 MW Kafue Gorge Lower Hydro Power Station and it is expected to be completed by 2020. The Company achieved the financial close of US\$1.5 billion senior debt facility with China Exim Bank and International Commercial Bank of China (ICBC) for financing the development of the project. In addition, the construction of the 330 kV transmission line to evacuate power from the power station is under way at a cost of US\$195 million. The project will be financed by a subordinate debt of US\$195 million and will be constructed by Sinohydro Corporation Limited. The line is expected to be completed in time of the completion of the power station.
- during the year, the Group embarked on the process to raise working capital financing on the Lusaka Stock Exchange. The Group is expecting to raise US\$500 million through a Bond Issuance on the Stock Exchange. The funds will be applied towards liquidating long outstanding power purchases arrears arising from the importation of emergency power and local power producers. The process of issuing a Bond on Lusaka Stock Exchange is expected to be concluded by the second quarter of 2019.
- during the year, the Group commenced power exports to Malawi of 20 MW through a 33KV distribution network. The Group has commenced the construction of Chipata-Chama-Lundazi transmission line at 132KV which will increase export capacity to Malawi and other neighbouring countries.
- 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 Project commercial structure is expected to change with the recommendations from Council of Ministers to develop the Project under Build, Operate and Transfer (BOT) commercial structure as a single project for both Zambia and Zimbabwe. The tendering process for the developer has commenced and is expected to be concluded before end of 2019.

During the year, the Group commissioned Musonda Falls Hydro Power Station which was upgraded from 5MW to 10MW. The Power Station will assist in meeting the increasing demand for power and improve voltage levels in Luapula and Northern regions.

### Health and Safety of Employees

The Group has a Safety, Health, Environment and Quality system called SHEQ. The SHEQ programme conforms to international standards/specifications such as ISO 9001, ISO 14001, OHSAS 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 to 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 Group achieve its strategic objectives and establish and entrench a SHEQ driven culture within the Group.

### Auditors

Messrs Deloitte & Touche's term of office comes to an end at the next Annual General Meeting. A resolution proposing their re-appointment as auditors and authorising the Directors to determine 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 the Annual Consolidated Financial Statements

The Companies Act, 2017 requires the Directors to prepare financial statements for each financial year that give a true and fair view of the state of affairs of the Group as at the end of the financial year and of its financial performance. It also requires the Directors to ensure that the Group keeps proper accounting records that disclose, with reasonable accuracy, the financial position of the Group. They are also responsible for safeguarding the assets of the Group. The Directors are further required to ensure the Group adheres to the corporate governance principles or practices contained in Part VII Sections 82 to 122 of the Companies Act, 2017.

The Directors accept responsibility for the annual consolidated financial statements, which have been prepared using appropriate accounting policies supported by reasonable estimates, in conformity with International Financial Reporting Standards and the requirements of the Companies Act, 2017.

The Directors further accept responsibility for the maintenance of accounting records that may be relied upon in the preparation of financial statements, and for such internal controls as the directors determine necessary to enable the preparation of consolidated financial statements that are free from material misstatement whether due to fraud or error. In addition, the Directors are responsible for preparing the Directors' report.


The Directors are of the opinion that the financial statements set out on pages 8 to 60 give a true and fair view of the state of the financial affairs of the Group and of its financial performance in accordance with International Financial Reporting Standards and the Companies Act, 2017. The Directors further report that they have implemented and further adhered to the corporate governance principles or practices contained in Part VII, Sections 82 to 122 of the Companies Act, 2017.

The Directors have made an assessment of the ability of the Group to continue as a going concern and have no reason to believe that the business will not be a going concern for at least twelve (12) months from the date of this statement.

The auditor is responsible for reporting on whether the consolidated financial statements are fairly presented in accordance with the applicable financial reporting framework described above.

Approval of the consolidated financial statements

The consolidated financial statements of ZESCO Limited and its subsidiaries, set out on pages 8 to 60, were approved by the Board of Directors on June 2019 and signed on its behalf by:



**Chairman**

Dr. Mbita Chitala



**Managing Director**

Mr. Victor M Mundende

# Independent Auditor's Report



**PO Box 30030  
Lusaka  
Zambia**

Deloitte & Touche  
Abacus square  
Plot No. 2374/B  
Thabo Mbeki Road  
Lusaka, Zambia

Tel: +(260) 21 1 228 677/8/9.  
Fax : +(260) 21 1 226 915  
www.deloitte.com

To the members of ZESCO Limited

## Report on the Audit of the Consolidated Financial Statements Opinion

We have audited the consolidated financial statements of ZESCO Limited and its subsidiaries, set out on Pages 8 to 60, which comprise the consolidated statement of financial position as at 31 December 2018, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of ZESCO Limited and its subsidiaries as at 31 December 2018, 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, 2017.

## 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 Consolidated Financial Statements section of our report. We are independent of the Group 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 consolidated 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	How our audit addressed the key audit matter
Impairment of trade receivables	
Effective 1 January 2018, the International Financial Reporting Standard (IFRS) 9 – Financial Instruments became effective replacing International Accounting Standard (IAS) 39: Financial Instruments: Recognition and Measurement. The key changes arising from adoption of IFRS 9 are that the Group's credit losses are now based on expected losses rather than an incurred loss model, and the change in the classification and measurement of the Group's financial assets and liabilities.	We performed the following audit procedures:
As at 31 December 2018, the gross amount of trade receivable was K6,392,582,000 against which an impairment provision of K4,963,596,000 was recorded. The impairment provision policy is presented in accounting policies in note 2 to the financial statements, which indicates that all financial assets are stated at amortised cost net of identified impairments.	<ul style="list-style-type: none"><li>● Tested inputs into the calculation of the doubtful debts, including the ageing, validity and completeness included in the calculation for doubtful debts;</li><li>● Assessed the recoverability taking into account the type of debtors and historical payment terms;</li><li>● Performed a retrospective review of the provision previously raised against the actual bad debts written off in the current year;</li><li>● Tested the collection of subsequent receipts received after year-end;</li><li>● Reviewed the IFRS 9 assessment and procedures carried out;</li><li>● Reviewed the reasonableness of the simplified model adopted for impairment assessments;</li></ul>

## Other Information

The Directors are responsible for the other information. The other information comprises the Directors' Report, as required by the Companies Act, 2017, which we obtained prior to the date of this auditor's report. The other information does not include the financial statements and our auditor's report thereon.

Our opinion on the consolidated 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 consolidated 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 Consolidated Financial Statements

The Directors are responsible for the preparation of consolidated financial statements which give a true and fair view in accordance with International Financial Reporting Standards and the requirements of the Companies Act, 2017, and for such internal control as the Directors determine is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Directors are responsible for assessing the Group'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 Group or to cease operations, or have no realistic alternative but to do so.

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

Our objectives are to obtain reasonable assurance about whether the consolidated 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 consolidated 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 consolidated 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 Group'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 Group'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 Group 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 Group to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the Group 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.

#### Report on other legal requirements

The Companies Act, 2017 requires that in carrying out our audit, we consider the adequacy of the accounting records, other records and registers required by the Acts for purposes of the audit. We confirm that these have been properly kept in accordance with the Act.

Further, Section 259(3) of the Companies Act, 2017 requires that in carrying out our audit, we consider and report that:

- There is no relationship, interest or debt which we have with and in the Group; and
- there are no serious breaches of corporate governance principles or practices by the Directors. This statement is made on the basis of the corporate governance provisions as enshrined in Part VII - corporate governance Section of the Companies Act, 2017.

Deloitte & Touche

Andrew Njovu

Partner

AUD/F000802

Date:

# Consolidated Statement of Profit or Loss and other Comprehensive Income

For the year ended 31 December 2018

Figures in ZMW	Notes	2018	2017
Revenue Refer to 5. Revenue on page 98 for more details.	5	9,534,935	7,424,850
Cost of sales Refer to 5. Revenue on page 98 for more details.	6	(5,285,630)	(4,310,900)
Gross Profit		4,249,305	3,113,950
Other operating income	7	561,475	424,143
Other losses	8	(1,652,092)	(87,071)
Marketing expenses		(19,718)	(32,123)
Administration expenses		(3,449,279)	(2,378,645)
Other expenses	9	(2,319,648)	(786,549)
Finance costs	10	(554,735)	(439,909)
Share of profit of associates	16.1	22,247	10,206
Share of profit of a joint venture	16.1	440,064	235,124
(LOSS) PROFIT BEFORE TAX		(2,722,381)	59,126
Income tax credit	12	4,068,348	711,877
PROFIT FOR THE YEAR		1,345,967	771,003
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		1,345,967	17,510,987

# Consolidated Statement of Financial Position

At 31 December 2018

Figures in ZMW	Notes	2018	2017
<b>ASSETS</b>			
Non current assets			
Property, plant and equipment	14	58,736,180	49,685,159
Intangible assets	15	68,632	68,740
Investments in associates	16.1	59,199	36,952
Investments in a joint venture	16.1	971,761	531,697
Investments in strategic fund	16.2	19,580	13,596
Total non current assets		59,855,352	50,336,144
Current assets			
Inventories	17	869,591	1,002,763
Trade and other receivables	18	2,671,493	2,436,240
Amounts due from related parties	21	3,133,088	2,237,135
Cash and bank balances		2,460,653	2,062,566
Total current assets		9,134,825	7,738,704
<b>TOTAL ASSETS</b>		<b>68,990,177</b>	<b>58,074,848</b>
<b>Equity and Liabilities</b>			
Equity and Reserves		22,891,837	24,089,690
Capital and reserves			
Issued capital	19	2,825,118	194
Amount pending allotment of shares	20	-	2,824,924
Revaluation reserve		13,999,659	16,976,452
Retained earnings		6,067,060	4,288,120
Total equity		22,891,837	24,089,690
Liabilities			
Non current liabilities		0.47	0.66
Borrowings	23	20,437,978	11,913,694
Retirement benefit obligation	24	2,096,160	2,063,280
Capital grants and contributions	25	2,602,043	2,308,755
Deferred tax liability	13	1,556,231	5,992,046
Total non current liabilities		26,692,412	22,277,775
Current liabilities			
Trade and other payables	26	13,507,037	7,368,112
Amounts due to related parties	21	2,427,680	1,233,893
Borrowings	23	1,790,821	1,549,061



Figures in ZMW	Notes	2018	2017
Retirement benefit obligation	24	178,250	125,485
Capital grants and contributions	25	130,006	109,863
Current tax liabilities	12	1,317,201	1,226,145
Bank overdraft	27	54,933	94,824
Total current liabilities		19,405,928	11,707,383
Total liabilities		46,098,340	33,985,158
Total Equity And Liabilities		68,990,177	58,074,848

The responsibilities of the Group's Directors with regard to the preparation of the consolidated financial statements are set out on page 4. The consolidated financial statements on pages 8 to 60 were approved by the Board of Directors and authorised for issue on JUNE 2019 and were signed on its behalf by:



**Chairman**

Dr. Mbita Chitala



**Managing Director**

Mr. Victor M Mundende

# Consolidated Statement of Changes in Equity

For the year ended 31 December 2018

Figures in ZMW	Share capital	Amount pending allotment of shares	Revaluation reserve	Retained earnings	Total
Balance at 1 January 2017	194	2,824,924	304,851	3,448,734	6,578,703
Profit for the year	-	-	-	771,003	771,003
Other comprehensive income for the year, net of income tax	-	-	16,739,984	-	16,739,984
Amortisation of revaluation reserve	-	-	(68,383)	68,383	-
Balance at 31 December 2017 as previously stated	194	2,824,924	16,976,452	4,288,120	24,089,690
Transition adjustment IFRS 9 (Note 18)	-	-	-	(243,089)	(243,089)
Balance at 1 January 2018 as restated	194	2,824,924	16,976,452	4,045,031	23,846,601
Issue of shares	2,824,924	(2,824,924)	-	-	-
Profit for the year	-	-	-	1,345,967	1,345,967
Deferred tax on revaluation	-	-	236,622	-	236,622
**Adjustments on revaluation	-	-	(2,537,353)	-	2,537,353)
Amortisation of revaluation reserve	-	-	(676,062)	676,062	-
Balance at 31 December 2018	2,825,118	-	13,999,659	6,067,060	22,891,837

\* The comparative information has been restated as a result of the initial application of IFRS 9 as discussed in note 18.

\*\*Adjustments arise from the fixed assets which were captured under revaluation of assets and yet they were still captured under Capital Works in Progress.

# Consolidated Statement of Cash Flows

For the year ended 31 December 2018

Figures in ZMW	NOTES	2018	2017
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Profit for the year		1,345,967	771,003
Adjustments for:			
- Income tax credit	12	(4,068,348)	(711,877)
- Share of profit loss of associates	16.1	(22,247)	(10,206)
- Share of profit of joint venture	16.1	(440,064)	(235,124)
- Interest income	7	(10,027)	(5,892)
- Finance costs recognised in profit or loss	10	554,735	439,909
- Net exchange losses recognised on borrowings	23	4,171,429	30,880
		(244)	(5,162)
- Depreciation of non-current assets	14	1,966,878	833,214
- Capitalised depreciation	14	(425)	(420)
- Amortisation of intangible assets	15	7,873	13,013
- Amortisation of capital grants and contributions	25	(151,425)	(102,387)
- Adjustment upon adoption of IFRS 9	18	(243,089)	-
- Impairment loss recognised on trade receivables	18	1,287,324	158,670
- Impairment reversal recognised on trade receivables	18	(91,452)	(1,682,886)
- Impairment loss recognised on other receivables		27,718	15,772
- Impairment reversal recognised on other receivables	18	(252,936)	(2,240)
		4,081,666	(493,734)
<b>Movements in working capital:</b>			
Decrease (increase) in inventory		133,172	(37,784)
(Increase) decrease in trade and other receivables		(1,205,905)	844,277
Increase in amounts due from related parties		(895,953)	(759,890)
Increase in trade and other payables		6,138,925	3,194,032
Increase in retirement benefit obligation		85,645	156,243
Increase in amounts due to related parties		1,193,787	625,174
<b>Cash generated from operations</b>		<b>9,531,336</b>	<b>3,528,318</b>
Interest paid	10	(554,735)	(439,909)
Income taxes paid	12	(39,789)	(172,860)
<b>Net cash generated by operating activities</b>		<b>8,936,813</b>	<b>2,915,549</b>
		<b>2,405,720</b>	<b>1,967,742</b>

Figures in ZMW	NOTES	2018	2017
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Proceeds from disposal of property, plant and equipment		944	6,266
Payments for property, plant and equipment	14	(13,555,528)	(4,008,121)
Payments for intangible assets	15	(7,765)	-
Strategic reserve fund payments	16.2	(5,984)	(4,792)
Interest received	7	10,027	5,892
Net cash used in investing activities		(13,558,306)	(4,000,755)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Repayment of borrowings	23	(2,330,626)	(1,042,313)
Proceeds from capital grants and contributions	25	464,856	991,466
Proceeds from borrowings	23	6,925,241	1,133,770
Net cash generated from financing activities		5,059,471	1,082,923
Net increase in cash and cash equivalents		437,978	(2,283)
Cash and cash equivalents at the beginning of the year		1,967,742	1,970,025
Cash and cash equivalents at the end of the year		2,405,720	1,967,742
<b>COMPRISING OF:</b>			
Bank and cash balances		2,460,653	2,029,346
Short term deposits		-	33,220
Bank overdraft	27	(54,933)	(94,824)
		2,405,720	1,967,742

# Notes to the Consolidated Financial Statements

## Contents

1.	Corporate Information	86	15.	Intangible Asset	103
2.	Adoption of New and Revised Standards	86	16.	Investments In Subsidiaries	104
3.	Significant Accounting Policies	90	17.	Inventories	106
4.	Critical Accounting Judgements and Key Sources of Estimation Uncertainty	92	18.	Trade and other Receivables	107
5.	Revenue	98	19.	Share Capital	109
6.	Cost of Sales	98	20.	Amounts Pending Allotment of Shares	109
7.	Other Operating Income	99	21.	Related Party Transactions	109
8.	Other Losses	99	22.	Operating Lease Comitments	109
9.	Other Expenses	99	23.	Borrowings	110
10.	Finance Costs	99	24.	Retirement Benefit Obligation	115
11.	(Loss) Profit Before Tax	99	25.	Capital Grants and Capital Contributions	116
12.	Current Tax	100	26.	Trade and Other Payables	116
13.	Deferred Tax	101	27.	Bank Overdraft	116
14.	Property, Plant and Equipment	101	28.	Financial Instruments	117
			29.	Contingent Liabilities	122
			30.	Events After the Reporting Date	122



# 1. Corporate Information

ZESCO Limited ("the Company") and its subsidiaries, Kafue Gorge Lower Power Development Corporation Limited, Batoka North Power Corporation Limited and Kariba North Bank Extension Power Corporation Limited are together the "Group" are incorporated and domiciled in Zambia. Its parent and ultimate holding company is Industrial Development Corporation Zambia Limited, a company incorporated in Zambia. The address of its registered office, principal place of business and principal activities are disclosed in the Directors' report on page 1.

## 2. Adoption of New and Revised Standards

### 2.1. New and amended IFRS that are effective for the current year

#### Impact of initial application of IFRS 9 Financial Instruments

"In the current year, the Group has applied IFRS 9 Financial Instruments (as revised in July 2014) and the related consequential amendments to other IFRS Standards that are effective for an annual period that begins on or after 1 January 2018. The transition provisions of IFRS 9 allow an entity not to restate comparatives.

IFRS 9 introduced new requirements for:

1) The classification and measurement of financial assets and financial liabilities,

2) Impairment of financial assets.

Details of these new requirements as well as their impact on the consolidated financial statements are described below.

The Group has applied IFRS 9 in accordance with the transition provisions set out in IFRS 9.

#### (a) Classification and measurement of financial assets

The date of initial application (i.e. the date on which the Group has assessed its existing financial assets and financial liabilities in terms of the requirements of IFRS 9) is 1 January 2018. Accordingly, the Group has applied the requirements of IFRS 9 to instruments that continue to be recognised as at 1 January 2018 and has not applied the requirements to instruments that have already been derecognised as at 1 January 2018. Comparative amounts in relation to instruments that continue to be recognised as at 1 January 2018 have not been restated as the impact has been deemed to be insignificant.

All recognised financial assets that are within the scope of IFRS 9 are required to be measured subsequently at amortised cost or fair value on the basis of the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets.

Specifically:

- debt instruments 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 amount outstanding, are measured subsequently at amortised cost;

- debt instruments that are held within a business model whose objective is both to collect the contractual cash flows and to sell the debt instruments, and that have contractual cash flows that are solely payments of principal and interest on the principal amount outstanding, are measured subsequently at fair value through other comprehensive income (FVTOCI);
- All other debt investments and equity investments are measured subsequently at fair value through profit or loss (FVTPL). Despite the foregoing, the Group may make the following irrevocable election/designation at initial recognition of a financial asset:
- the Group may irrevocably elect to present subsequent changes in fair value of an equity investment that is neither held for trading nor contingent consideration recognised by an acquirer in a business combination in other comprehensive income; and
- the Group may irrevocably designate a debt investment that meets the amortised cost or FVTOCI criteria as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

In the current year, the Group has not designated any debt investments that meet the amortised cost or FVTOCI criteria as measured at FVTPL.

When a debt investment measured at FVTOCI is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment. When an equity investment designated as measured at FVTOCI is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is subsequently transferred to retained earnings.

Debt instruments that are measured subsequently at amortised cost or at FVTOCI are subject to impairment. See (b) below.

The directors of the Group reviewed and assessed the Group's existing financial assets as at 1 January 2018 based on the facts and circumstances that existed at that date and concluded that the initial application of IFRS 9 has had an insignificant impact on the Group's financial assets as regards their classification and measurement:

- financial assets classified as loans and receivables under IAS 39 that were measured at amortised cost continue to be measured at amortised cost under IFRS 9 as they are held within a business model to collect contractual cash flows and these cash flows consist solely of payments of principal and interest on the principal amount outstanding.

#### (b) Impairment of financial assets

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 the Group 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 of the financial assets. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.

**Specifically, IFRS 9 requires the Group to recognise a loss allowance for expected credit losses on:**

(1) Debt investments measured subsequently at amortised cost or at FVTOCI;

(2) Lease receivables;

(3) Trade receivables and contract assets; and

In particular, IFRS 9 requires the Group to measure the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses (ECL) if the credit risk on that financial instrument has increased significantly since initial recognition, or if the financial instrument is a purchased or originated credit-impaired financial asset.

However, if the credit risk on a financial instrument has not increased significantly since initial recognition (except for a purchased or originated credit-impaired financial asset), the Group is required to measure the loss allowance for that financial instrument at an amount equal to 12-months ECL. IFRS 9 also requires a simplified approach for measuring the loss allowance at an amount equal to lifetime ECL for trade receivables and lease receivables in certain circumstances.

For the purpose of assessing whether there has been a significant increase in credit risk since initial recognition of financial instruments that remain recognised on the date of initial application of IFRS 9 (i.e. 1 January 2018), the directors have compared the credit risk of the respective financial instruments on the date of their initial recognition to their credit risk as at 1 January 2017.

The result of the assessment is as follows:

Items existing as at 01/01/18 that are subject to the impairment provisions of IFRS 9	Note	Credit risk attributes 1 January 2017 and 1 January 2018
Receivables from related parties	21	The directors have concluded that it would require undue cost and effort to determine the credit risk of each receivable on their respective dates of initial recognition. These receivables are also assessed to have credit risk other than low. Accordingly, the Group recognises lifetime ECL for these loans until they are derecognised.
Trade and other receivables	18	The Group uses a provision matrix to measure the expected credit loss of trade receivables. Based on the industry practices and the business environment in which the entity operates, management considers that the trade receivables are credit impaired if the payments are more than 90 days past due.
Cash and bank		All bank balances are assessed to have low credit risk at each reporting date as they are held with reputable international banking institutions.

(c) Classification and measurement of financial liabilities

A significant change introduced by IFRS 9 in the classification and measurement of financial liabilities relates to the accounting for changes in the fair value of a financial liability designated as at FVTPL attributable to changes in the credit risk of the issuer.

Specifically, IFRS 9 requires that the changes in the fair value of the financial liability that is attributable to changes in the credit risk of that liability be presented in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk 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, but are instead transferred to retained earnings when the financial liability is derecognised.

Previously, under IAS 39, the entire amount of the change in the fair value of the financial liability designated as at FVTPL was presented in profit or loss.

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

The application of IFRS 9 has had no impact on the classification and measurement of the Group's financial liabilities.

### (d) Disclosures in relation to the initial application of IFRS 9

There were no financial assets or financial liabilities which the Group had previously designated as at FVTPL under IAS 39 that were subject to reclassification or which the Group has elected to reclassify upon the application of IFRS 9. There were no financial assets or financial liabilities which the Group has elected to designate as at FVTPL at the date of initial application of IFRS 9.

### Impact of application of IFRS 15 Revenue from Contracts with Customers

In the current year, the Group has applied IFRS 15 Revenue from Contracts with Customers (as amended in April 2016) which is effective for an annual period that begins on or after 1 January 2018. IFRS 15 introduced a 5-step approach to revenue recognition. Far more prescriptive guidance has been added in IFRS 15 to deal with specific scenarios. Details of the new requirements as well as their impact on the Group's financial statements are described below.

The Group has adopted IFRS 15, 'Revenue from Contracts with Customers' applying the cumulative effect method applied retrospectively to the contracts that are not completed as of 1 January 2018 (being the date of initial application). Accordingly, the comparative information has not been restated. The effect on adoption of the said standard is insignificant on these financial statements.

Revenue is recognised upon transfer of control of promised products or services to the customer at the consideration which the Group has received or expects to receive in exchange of those products or services, net of any taxes / duties, discounts and process waivers. In order to determine if it is acting as a principal or as an agent, the Group assesses whether it is primarily responsible for fulfilling the performance obligation.

IFRS 15 uses the terms 'contract asset' and 'contract liability' to describe what might more commonly be known as 'accrued revenue' and 'deferred revenue', however the Standard does not prohibit an entity from using alternative descriptions in the statement of financial position. The Group has adopted the terminology used in IFRS 15 to describe such balances.

The Group's accounting policies for its revenue streams are disclosed in detail in note 3 below. Apart from providing more extensive disclosures for the Group's revenue transactions, the application of IFRS 15 has not had a significant impact on the financial position and/or financial performance of the Group.

## 2.2. New and revised IFRS standards in issue but not yet effective

In the current year, the Group has applied a number of amendments to IFRS Standards and Interpretations issued by the International Accounting Standards Board (IASB) that are effective for an annual period that begins on or after 1 January 2019. Their adoption has not had any material impact on the disclosures or on the amounts reported in these consolidated financial statements.

At the date of authorisation of these financial statements, the Group has not applied the following new and revised IFRS Standards that have been issued but are not yet effective.

IFRS 16	Leases
Amendments to IFRS 9	Prepayment Features with Negative Compensation
Amendments to IAS 19 Employee Benefits	Plan Amendment, Curtailment or Settlement
IFRIC 23	Uncertainty over Income Tax Treatments

The directors do not expect that the adoption of the Standards listed above will have a material impact on the financial statements of the Group in future periods, except as noted below:

### IFRS 16 Leases

#### General impact of application of IFRS 16 Leases

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements 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 for accounting periods beginning on or after 1 January 2019. The date of initial application of IFRS 16 for the Group will be 1 January 2019.

In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. "

The Group will apply the definition of a lease and related guidance set out in IFRS 16 to all lease contracts entered into or modified on or after 1 January 2019 (whether it is a lessor or a lessee in the lease contract).

### Impact on Lessee Accounting

#### Operating leases

IFRS 16 will change how the Group accounts for leases previously classified as operating leases under IAS 17, which were off-balance sheet.

On initial application of IFRS 16, for all leases (except as noted below), the Group will:

- Recognise right-of-use assets and lease liabilities in the statement of financial position, initially measured at the present value of the future lease payments;
- Recognise depreciation of right-of-use assets and interest on lease liabilities in the statement of profit or loss;
- Separate the total amount of cash paid into a principal portion (presented within financing activities) and interest (presented within operating activities) in the cash flow statement.

Lease incentives (e.g. rent-free period) will be recognised as part of the measurement of the right-of-use assets and lease liabilities whereas under IAS 17 they resulted in the recognition of a lease liability incentive, amortised as a reduction of rental expenses on a straight-line basis.

Under IFRS 16, right-of-use assets will be tested for impairment in accordance with IAS 36 Impairment of Assets. This will replace the previous requirement to recognise a provision for onerous lease contracts.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as personal computers and office furniture), the Group will opt to recognise a lease expense on a straight-line basis as permitted by IFRS 16.

### Finance leases

The main differences between IFRS 16 and IAS 17 with respect to assets formerly held under a finance lease is the measurement of the residual value guarantees provided by the lessee to the lessor. IFRS 16 requires that the Group recognises as part of its lease liability only the amount expected to be payable under a residual value guarantee, rather than the maximum amount guaranteed as required by IAS 17. On initial application the Group will present equipment previously included in property, plant and equipment within the line item for right-of-use assets and the lease liability, previously presented within borrowing, will be presented in a separate line for lease liabilities.

### Impact on Lessor Accounting

Under IFRS 16, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently. However, IFRS 16 has changed and expanded the disclosures required, in particular regarding how a lessor manages the risks arising from its residual interest in leased assets.

Under IFRS 16, an intermediate lessor accounts for the head lease and the sublease as two separate contracts. The intermediate lessor is required to classify the sublease as a finance or operating lease by reference to the right-of-use asset arising from the head lease (and not by reference to the underlying asset as was the case under IAS 17).

Because of this change the Group will reclassify certain of its sublease agreements as finance leases. As required by IFRS 9, an allowance for expected credit losses will be recognised on the finance lease receivables. The leased assets will be derecognised and finance lease asset receivables recognised. This change in accounting will change the timing of recognition of the related revenue (recognised in finance income).

### Amendments to IFRS 9 Prepayment Features with Negative Compensation

The amendments to IFRS 9 clarify that for the purpose of assessing whether a prepayment feature meets the SPPI condition, the party exercising the option may pay or receive reasonable compensation for the prepayment irrespective of the reason for prepayment. In other words, prepayment features with negative compensation do not automatically fail SPPI.

The amendment applies to annual periods beginning on or after 1 January 2019, with earlier application permitted. There are specific transition provisions depending on when the amendments are first applied, relative to the initial application of IFRS 9.

The directors of the Group do not anticipate that the application of the amendments in the future will have an impact on the consolidated financial statements.

### Amendments to IAS 19 Employee Benefits Plan Amendment, Curtailment or Settlement

The amendments clarify that the past service cost (or of the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment

(or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position). IAS 19 is now clear that the change in the effect of the asset ceiling that may result from the plan amendment (or curtailment or settlement) is determined in a second step and is recognised in the normal manner in other comprehensive income.

The paragraphs that relate to measuring the current service cost and the net interest on the net defined benefit liability (asset) have also been amended. An entity will now be required to use the updated assumptions from this remeasurement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. In the case of the net interest, the amendments make it clear that for the period post plan amendment, the net interest is calculated by multiplying the net defined benefit liability (asset) as remeasured under IAS 19.99 with the discount rate used in the remeasurement (also taking into account the effect of contributions and benefit payments on the net defined benefit liability (asset)).

The amendments are applied prospectively. They apply only to plan amendments, curtailments or settlements that occur on or after the beginning of the annual period in which the amendments to IAS 19 are first applied. The amendments to IAS 19 must be applied to annual periods beginning on or after 1 January 2019, but they can be applied earlier if an entity elects to do so.

The directors of the Group do not anticipate that the application of the amendments in the future will have an impact on the Group's financial statements.

### IFRIC 23 Uncertainty over Income Tax Treatments

IFRIC 23 sets out how to determine the accounting tax position when there is uncertainty over income tax treatments. The Interpretation requires an entity to:

- determine whether uncertain tax positions are assessed separately or as a Group; and
- assess whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings:

– If yes, the entity should determine its accounting tax position consistently with the tax treatment used or planned to be used in its income tax filings.

– If no, the entity should reflect the effect of uncertainty in determining its accounting tax position. The Interpretation is effective for annual periods beginning on or after 1 January 2019. Entities can apply the Interpretation with either full retrospective application or modified retrospective application without restatement of comparatives retrospectively or prospectively.

The directors of the Group do not anticipate that the application of the amendments in the future will have an impact on the consolidated financial statements.

# 3. Significant Accounting Policies

## 3.1. Statement of compliance

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

## 3.2. Basis of preparation

The Directors have, at the time of approving the consolidated financial statements, a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Thus they continue to adopt the going concern basis of accounting in preparing the financial statements.

The consolidated financial statements have been prepared on the historical cost basis except for certain properties and financial instruments that are measured at revalued amounts or 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 Group 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 consolidated financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in Zambian Kwacha (K).

The consolidated financial statements incorporate the financial statements of the Group and its subsidiaries. Group is achieved where the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

- has power over the investee;

- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

Consolidation of subsidiaries, begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the investments. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Group and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Group and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

### 3.2.1. Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment, or a portion thereof, is classified as held for sale, in which case it is accounted for in accordance with IFRS 5. Under the equity method, an investment in an associate or a joint venture is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.



The requirements of IAS 39 are applied to determine whether it is necessary to recognise any impairment loss with respect to the Group's investment in an associate or a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36 Impairment of Assets as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date when the investment ceases to be an associate or a joint venture, or when the investment is classified as held for sale. When the Group retains an interest in the former associate or joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with IAS 39. The difference between the carrying amount of the associate or joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) when the equity method is discontinued.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

When a group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognised in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

As at 31 December 2018, the Group's current liabilities exceeded their current assets by K10, 271,103,000 (2017: K3, 968,679,000). The consolidated 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 Group 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 Group 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 Group for the foreseeable future, should this be required, enabling it to pay its debts as and when they fall due.

### 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.

Revenue arises mainly from the distribution and supply of electricity to customers being Mines, exports, domestic and commercial customers.

To determine whether to recognise revenue, the Group follows a 5-step process:

1. Identifying the contract with a customer;
2. Identifying the performance obligations;
3. Determining the transaction price;
4. Allocating the transaction price to the performance obligations; and
5. Recognising revenue when/as performance obligation(s) are satisfied.

The Group enters into transactions involving a range of the Group's products and services. These include wheeling of electricity, supply of electricity.

In all cases, the total transaction price for a contract is allocated amongst the various performance obligations based on their relative stand-alone selling prices. The transaction price for a contract excludes any amounts collected on behalf of third parties.

Revenue is recognised either at a point in time or over time, when (or as) the Group satisfies performance obligations by transferring the promised goods or services to its customers.

The Group recognises contract liabilities for consideration received in respect of unsatisfied performance obligations and reports these amounts as customer financed long term payables in the statement of financial position. Similarly, if the Group satisfies a performance obligation before it receives the consideration, the Group recognises either a contract asset or a receivable in its statement of financial position, depending on whether something other than the passage of time is required before the consideration is due.

#### Sale of electricity

Revenue from the sale of electricity for an agreed tariff is recognised when or as the Group transfers electricity to the customer. Invoices for goods or services transferred are due upon receipt by the customer. Prepaid Sales are recognised at the point when the electricity tokens are issued to the customers.

For stand-alone sales of energy and capacity that are neither customised by the Group nor subject to significant integration services, control transfers at the point in time that the customer takes undisputed delivery of the goods. When such items are either customised or sold together with significant integration, they represent a single combined performance obligation over which control is considered to transfer over time. This is because the combined product is unique to each customer (has no alternative use) and the Group has an enforceable right to payment for the power delivered to date.

## 4. Critical Accounting Judgements and Key Sources of Estimation Uncertainty

The preparation of the consolidated financial statements in conformity with the Group'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 Group 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) Calculation of loss allowance

When measuring ECL the Company uses reasonable and supportable forward looking information, which is based on assumptions for the future movement of different economic drivers and how these drivers will affect each other.

Loss given default is an estimate of the loss arising on default. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, taking into account cash flows from collateral and integral credit enhancements.

Probability of default constitutes a key input in measuring ECL. Probability of default is an estimate of the likelihood of default over a given time horizon, the calculation of which includes historical data, assumptions and expectations of future conditions.

#### (c) Significant increase in credit risk

As explained in note 3, ECL are measured as an allowance equal to 12-month ECL for stage 1 assets, or lifetime ECL for stage 2 or stage 3 assets. An asset moves to stage 2 when its credit risk has increased significantly since initial recognition. IFRS 9 does not define what constitutes a significant increase in credit risk. In assessing whether the credit risk of an asset has significantly increased the company takes into account qualitative and quantitative reasonable and supportable forward looking information.

#### (d) Provision for obsolete inventory

The Group 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 Group 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.

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 Group's management determines the estimated useful lives and related depreciation charge for its items of property, plant and equipment on an annual basis. The Group 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 Group's assessment of the Group'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 Group's weighted average cost of capital adjusted to reflect the specific economic environment of the joint venture or associate.

#### (d) Actuarial valuation assumptions

The Group has a defined benefit pension scheme, the valuation of the net assets or liabilities involves accounting estimates arising from actuarial valuation based on assumptions. Actuarial assumptions made in determining the present obligation of retirement benefits.

The sale of energy to customers in the foreign countries and Zambia bought from utilities in the SAPP is known as power trading.

### 4.3. 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.

### 4.4. Rental income

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

### 4.5. Fibrecom 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.

### 4.6. 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.

### 4.7. Foreign currencies

In preparing the consolidated 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

### 4.8. 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.

### 4.9. Capital grants and contributions

Capital grants are not recognised until there is reasonable assurance that the Group 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 Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group 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.

### 4.10. 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 Group'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

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

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 Group 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 Group 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.

## 4.11. Property, plant and equipment

Property, plant and equipment are stated in the statement of consolidated 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, Office 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 Group'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 Group.

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.

## 4.12. 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.

### 4.12.1. Finance leases

Assets held under finance leases are initially recognised as assets of the Group 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 Group's general policy on borrowing costs. Contingent rentals are recognised as expenses in the periods in which they are incurred.

### 4.12.2. 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.

## 4.13. 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, and are recognised in profit or loss when the asset is derecognised.

## 4.14. Impairment of tangible and intangible assets

At the end of each reporting period the Group 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 Group 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.

## 4.15. Financial instruments

Financial assets and financial liabilities are recognised in the Group's statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other

than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognised immediately in profit or loss.

## 4.16. Financial assets

All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognised financial assets are measured subsequently in their entirety at either amortised cost or fair value, depending on the classification of the financial assets.

### Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortised cost:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income (FVTOCI):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

By default, all other financial assets are measured subsequently at fair value through profit or loss (FVTPL).

Despite the foregoing, the Group may make the following irrevocable election/designation at initial recognition of a financial asset:

- the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met; and
- the Group may irrevocably designate a debt investment that meets the amortised cost or FVTOCI criteria as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.
- Amortised cost and effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period.

For financial assets other than purchased or originated credit-impaired financial assets (i.e. assets that are credit-impaired on initial recognition), 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) excluding expected credit losses, through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition.



## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses, to the amortised cost of the debt instrument on initial recognition.

The amortised cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortised cost of a financial asset before adjusting for any loss allowance.

The amortised cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortised cost of a financial asset before adjusting for any loss allowance.

For purchased or originated credit-impaired financial assets, the Group recognises interest income by applying the credit-adjusted effective interest rate to the amortised cost of the financial asset from initial recognition.

The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit-impaired. Interest income is recognised in profit or loss.

### Foreign exchange gains and losses

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically;

- for financial assets measured at amortised cost that are not part of a designated hedging relationship, exchange differences are recognised in profit or loss;
- for debt instruments measured at FVTOCI that are not part of a designated hedging relationship, exchange differences on the amortised cost of the debt instrument are recognised in profit or loss. Other exchange differences are recognised in other comprehensive income in the investments revaluation reserve;
- for equity instruments measured at FVTOCI, exchange differences are recognised in other comprehensive income in the investments revaluation reserve.

### Impairment of financial assets

The Group recognises a loss allowance for expected credit losses on investments in debt instruments that are measured at amortised cost or at FVTOCI, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group always recognises lifetime ECL for trade receivables, contract assets and lease receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

#### (i) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information considered includes the future prospects of the industries in which the Group's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think-tanks and other similar organisations, as well as consideration of various external sources of actual and forecast economic information that relate to the Group's core operations.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor, or the length of time or the extent to which the fair value of a financial asset has been less than its amortised cost;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- significant increases in credit risk on other financial instruments of the same debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligation

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if:

- (1) The financial instrument has a low risk of default,

(2) The debtor has a strong capacity to meet its contractual cash flow obligations in the near term, and

(3) Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

#### (ii) Definition of default

The Group considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

- When there is a breach of financial covenants by the debtor; or
- Information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collateral held by the Group).

Irrespective of the above analysis, the Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

#### (iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

- (a) Significant financial difficulty of the issuer or the borrower;
- (b) A breach of contract, such as a default or past due event;
- (c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- (d) It is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or
- (e) The disappearance of an active market for that financial asset because of financial difficulties.

#### (iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over law of limitation period past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in profit or loss.

#### (v) Measurement and recognition of expected credit losses

The measurement of expected credit losses is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above.

As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the reporting date; for financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Group's understanding of the specific future financing needs of the debtors, and other relevant forward-looking information.

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to the Group in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the original effective interest rate.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

#### Derecognition of financial assets

The Group 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 Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group 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 profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument which the Group has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

#### Financial liabilities and equity

##### Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

##### Equity instruments

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

Repurchase of the Group's own equity instruments is recognised and deducted directly in equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

##### Financial liabilities

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

All financial liabilities are measured subsequently at amortised cost using the effective interest method or at FVTPL.

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 (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 liability, or (where appropriate) a shorter period, to the amortised cost of a financial liability.

### Foreign exchange gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortised cost at the end of each reporting period, the foreign exchange gains and losses are determined based on the amortised cost of the instruments. These foreign exchange gains and losses are recognised in the 'other gains and losses' line item in profit or loss.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period.

### Derecognition of financial liabilities

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

## 4.17. Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group 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.

## 4.18. 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 Group'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 Group 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 Group pays fixed contributions into a separate entity. The Group 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.

## 5. Revenue

Figures in ZMW	2018	2017
Arose from customers in the following sections:		
Mining	5,324,388	4,168,070
Residential	1,596,638	1,578,360
Industrial and agricultural	1,239,429	924,033
Exports	1,063,366	728,968
Commercial (retail outlets)	311,114	25,419
	9,534,935	7,424,850

## 6. Cost of Sales

Figures in ZMW	2018	2017
Local purchases of power	3,609,806	2,595,875
Direct labour costs	854,873	781,856
Maintenance costs	319,948	368,051
Emergency power imports (financed by Government)	307,232	341,560
Local wheeling charges	94,418	84,381
Generation water usage & fuel costs	80,027	83,274
Power imports (internally financed)	10,050	29,822
Export wheeling charges	9,276	26,081
	<b>5,285,630</b>	<b>4,310,900</b>

The importation of emergency power contract with Karpowership expired on 31 March 2018. The company depended on internal generation and also power purchases from Independent Power Producers (IPPs). The cost of local power purchases from IPPs increased by 42% partially due to increase in volume power purchases and depreciation of the Kwacha against US Dollar. The IPPs include Maamba Collieries Limited, Ndola Energy and Itezhi Tezhi Power Corporation Limited whose average cost of power exceeds ZESCO's selling price to customers. During the year there was no disbursements from the Government of the Republic of Zambia (2017: K368.5 million) towards the arrears of emergency power purchases. 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

Figures in ZMW	2018	2017
Sundry income	259,962	57,660
Amortisation of capital grants and contributions (Note 26)	151,425	102,387
Fibrecom income	89,215	77,338
Interest on late payments	26,280	160,436
Wheeling income	22,585	18,429
Interest income	10,027	5,892
Rental income	1,981	2,001
	<b>561,475</b>	<b>424,143</b>

## 8. Other Losses

Figures in ZMW	2018	2017
Net exchange losses	(1,652,336)	(92,233)
Gain on disposal of property, plant and equipment	244	5,162
	<b>(1,652,092)</b>	<b>(87,071)</b>

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

The impact of the appreciation of the Zambian Kwacha during the year is that the Group recorded significant exchange gains 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 2018	Mid – market exchange rate as at 31 December 2018	Average depreciation during the year
US Dollar (1 US\$ = )	K9.953	K11.9339	20%

## 9. Other Expenses

Figures in ZMW	2018	2017
Provision for bad debts	1,315,049	781,817
Other expenses	1,004,599	4,732
	<b>2,319,648</b>	<b>786,549</b>

## 10. Finance Costs

These comprise the following:

Figures in ZMW	2018	2017
Interest paid on borrowings	541,850	424,007
Interest paid on overdraft	12,885	15,903
	<b>554,735</b>	<b>439,909</b>

## 11. (Loss) Profit Before Tax

Figures in ZMW	Notes	2018	2017
(Loss) profit before tax is stated after crediting:			
Amortisation of capital grants and capital contributions		151,425	102,387
Interest income		10,027	5,892
Gain on disposal of property, plant and equipment		244	5,162
and after charging:			
Net exchange losses	8	1,652,336	92,233
Employee benefits		452,473	1,524,753
Depreciation and amortisation	14 & 15	1,974,751	846,227
Finance costs	10	554,735	439,909
Pension costs		88,831	398,903
Directors' fees			

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

Figures in ZMW	Notes	2018	2017
- in connection with the management		13,860	12,135
- as Directors		4,486	1,504
Operating lease rental		11,000	8,785
Donations		5,816	3,434

## 12. Current Tax

Figures in ZMW	Notes	2018	2017
Income tax charge at 35%			
Deferred taxation	13	(4,199,193)	(758,895)
Current tax		130,845	47,018
Income tax credit		(4,068,348)	(711,877)

Subject to agreement with the Zambia Revenue Authority, the Company had estimated tax losses of K24.366 billion (2017: K12.358 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:

2017/2018 losses available until 2021	24,365,979	12,357,968
Included under current liabilities:		
Arising during the year	130,845	47,018
Payable in respect of prior year	1,226,145	1,351,987
	1,356,990	1,399,005
Paid during the year	(39,789)	(172,860)
Payable at end of year	1,317,201	1,226,145
Reconciliation of tax charge		
The total income tax expense for the year can be reconciled to the accounting profit as follows:		
(Loss) profit before tax	(2,722,381)	59,126
Applicable tax rate of 35%	(952,833)	20,694
Permanent differences:		
- Capital exchange gains	(536,981)	(581,006)
- Other disallowable items	(2,578,533)	(25,747)
Tax rate adjustment	-	(125,818)
	(4,068,348)	(711,877)



## 13. Deferred Tax

Figures in ZMW	2018	2017
At beginning of year	5,992,046	(2,226,074)
(Credit) charge to equity	(236,622)	8,977,015
Credit to profit or loss for the year (Note 12)	(4,199,193)	(758,895)
At end of year	1,556,231	5,992,046

Figures in ZMW	Net unutilised tax losses	Accelerated capital allowances	Revaluation surplus	Provisions and other	Total
2017					
"At beginning of year restated"	(1,783,440)	2,527,570	164,150	(3,134,355)	(2,226,075)
(Credit) charge to profit or loss	(2,392,236)	687,347	-	945,993	(758,896)
Charge to equity	-	-	8,977,015	-	8,977,015
At end of year	(4,175,676)	3,214,917	9,141,165	(2,188,362)	5,992,044
2018					
At beginning of year	(4,175,676)	3,214,917	9,141,165	(2,188,362)	5,992,044
(Credit) charge to profit or loss	(4,066,621)	(614,301)	(74,206)	555,937	(4,199,191)
Charge to equity	-	-	(236,622)	-	(236,622)
At end of year	(8,242,297)	2,600,616	8,830,337	(1,632,425)	1,556,231

Refer To Note 4 – 12 & Notes 13-14

## 14. Property, Plant and Equipment

Figures in ZMW	Generation systems	Transmission systems	Distribution systems	Civil works & Buildings	Vehicle, furniture & fittings & equipment	Capital work in progress	Total
Cost or valuation							
At 1 January 2017	2,255,587	11,594,105	-	1,575,692	6,037	8,917,012	24,348,433
Additions	41,411	-	-	4,852	1,518	3,960,339	4,008,120
Depreciation Capitalised	-	-	-	-	-	420	420
Transfers	576,045	4,358,719	-	202,277	-	(5,137,041)	-
Revaluation	2,182,595	9,056,025	-	10,632,005	-	-	21,870,625
Disposals	(23,673)	-	-	-	-	-	(23,673)
At 31 December 2017	5,031,965	25,008,849	-	12,414,826	7,555	7,740,730	50,203,925
At 31 December 2018							
Additions	4,216	-	-	5,251	91,905	13,454,156	13,555,528
Depreciation Capitalised	-	-	-	-	-	425	425
Transfers	17,836	144,939	165,101	1,989	2,871	(332,736)	-
*Realignments	(150,867)	(13,634,295)	12,755,933	(3,042,758)	4,071,987	-	-
**Adjustments	-	(109,197)	(156,888)	-	-	(2,271,268)	(2,537,353)
Disposals	-	-	-	-	(5,093)	-	(5,093)
At 31 December 2018	4,569,826	10,857,708	12,099,611	8,946,464	3,671,264	18,591,307	58,736,180
At 31 December 2017	4,900,892	24,732,308	-	12,311,229	-	7,740,730	49,685,159

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

Figures in ZMW	Generation systems	Transmission systems	Distribution systems	Civil works & Buildings	Vehicle, furniture & fittings & equipment	Capital work in progress	Total
At 31 December 2018	4,903,150	11,410,296	12,764,146	9,379,308	4,169,225	18,591,307	61,217,432
Depreciation							
At 1 January 2017	97,935	-	-	148,417	3,316,133	-	3,562,485
Charge for year	33,138	-	-	153,736	646,340	-	833,214
Reclassification to intangible asset	-	-	-	-	(7,989)	-	(7,989)
Eliminated on revaluation	-	-	-	-	(3,647,819)	-	(3,647,819)
Eliminated on disposal	-	-	-	(198,555)	(22,569)	-	(221,124)
At 31 December 2017	131,073	-	-	103,598	284,096	-	518,767
Charge for year	202,251	552,588	664,535	329,246	218,258	-	1,966,878
Eliminated on disposal	-	-	-	-	(4,393)	-	(4,393)
At 31 December 2018	333,324	552,588	664,535	432,844	497,961	-	2,481,252
CARRYING AMOUNT							
At 31 December 2018	4,569,826	10,857,708	12,099,611	8,946,464	3,671,264	18,591,307	58,736,180
At 31 December 2017	4,900,892	24,732,308	-	12,311,229	-	7,740,730	49,685,159

\*Adjustments arise from the fixed assets which were captured under revaluation of assets and yet they were still captured under Capital Works in Progress.

\*Realignments of balances arise due to the change in classification of fixed assets.

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 248 of the Companies Act, 2017, the register of Land and Buildings is available for inspection by members and their duly authorised agents at the registered records office of the Group.

### Assets Held as Security

Certain assets under Civil and Buildings have been placed as Security for a Loan obtained from Industrial Development Corporation Limited (IDC). The assets held as security are Office Buildings in nature. The Loan was obtained on behalf of ZESCO Limited ("Parent") by IDC. The buildings have been placed as security to secure against the credit risk.

## 15. Intangible Asset

Figures in ZMW	2018	2017
Cost		
At beginning of year	68,740	143,448
Loss on revaluation	-	(74,708)
Additions	7,765	-
At end of year	76,505	68,740
Accumulated amortisation		
At beginning of year	-	(57,363)
Reclassification from property, plant and equipment (note 14)	-	(7,989)
Elimination of accumulated amortisation	-	78,365
Amortisation expense	(7,873)	(13,013)
Balance at 31 December	(7,873)	-
Carrying amounts:		
At end of year	68,632	68,740

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

Oracle software	4 years
Business information system	20 years

### 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.

Intangible assets	Valuation technique	Description of valuation technique	Observable inputs
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

Figures in ZMW	Level 1	Level 2	Level 3	Fair value at 31 December 2018
Intangible assets	-	-	76,505	76,505

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 In Subsidiaries

Name of subsidiary	Principle activity	Place of incorporation and principle place of business	Proportion of ownership interest/ voting rights held by the Group
Kariba North Bank Extension Power Corporation Limited	Generation and supply of electricity	Zambia, Lusaka	100%
Kafue Gorge Lower Power Development Corporation Limited	Construction of the power generation facility	Zambia, Lusaka	100%
Batoka North Bank Power Corporation Limited	Construction of the power generation facility	Zambia, Lusaka	100%

### 16.1. Investments in Associates and a Joint Venture

Name and nature of investment	Principle activity	Place of incorporation and principle place of business	Proportion of ownership interest/ voting rights held by the Group
Itezhi Itezhi Power Corporation Limited (Joint Venture)	Generation and supply of electricity	Zambia, Lusaka	50%
El Sewedy Electric Zambia Limited (Associate)	Manufacturing of distribution transformers ranging from 25kv to a maximum of 5,000kv (5mva)	Zambia, Ndola	40%
Zambia Electrometer Limited (Associate)	Manufacture of electricity meters and compact fluorescent lights.	Zambia, Ndola	40%

All the above associates and joint venture are accounted for using the equity method in these consolidated financial statements.

Summarised financial information in respect of each of the Group's material associates is set out below. The summarised financial information below represents amounts shown in the associate's financial statements prepared in accordance with the IFRS's adjusted by the Group for equity accounting purposes.

[i] Itezhi tezhi Power Corporation Limited (Joint Venture)

Figures in ZMW	2018	2017
At the beginning of the year	531,697	296,573
Share of profit for the year	440,064	235,124
	971,761	531,697
Statement of financial position:		
Current assets	2,601,797	1,460,621
Non-current assets	1,659,043	1,722,948
Current liabilities	432,383	334,661
Non- current liabilities	1,883,791	1,784,369
Net assets of the joint venture	1,944,666	1,064,539
Proportion of the Group's ownership	50%	50%
Group share of net assets	972,333	532,270
Statement of comprehensive income:		
Revenue	997,551	891,090
Net exchange gains	47,345	20,867
Profit and total comprehensive profit	880,127	470,248
Proportion of the Group's ownership	50%	50%
Group share of joint venture's profit for the year	440,064	235,124

[ii] El Sewedy Electric Zambia Limited (Associate)

Figures in ZMW	2018	2017
At the beginning of the year	27,829	22,528
Share of profit for the year	15,604	5,301
	43,433	27,829
Statement of financial position:		
Current assets	194,045	180,010
Non-current assets	79,903	66,948
Current liabilities	139,915	151,937
Non- current liabilities	-	-
Net assets of the joint venture	134,033	95,021
Proportion of the Group's ownership	40%	40%
Group share of net assets	53,613	38,008
Statement of comprehensive income:		
Revenue	107,356	79,897
Profit for the year	17,505	12,656
Total comprehensive income for the year	39,010	13,253
Proportion of the Group's ownership	40%	40%
Group share of associate's profit for the year	15,604	5,301

[iii] Zambia Electrometer Limited (Associate)

Figures in ZMW	2018	2017
At the beginning of the year	19,868	14,963
Share of profit for the year	6,643	4,905
	26,511	19,868
Statement of financial position		
Current assets	20,839	15,297
Non-current assets	7,284	7,703
Current liabilities	107,941	86,209
Non- current liabilities	2,218	2,218
Proportion of the Group's ownership	40%	40%
Group share of net liabilities	(32,814)	(26,171)
Statement of comprehensive income:		
Revenue	45,193	4,262
Profit for the year	16,608	12,263
Total comprehensive income for the year	16,608	12,263
Proportion of the Group's ownership	40%	40%
Group share of associate's profit for the year	6,643	4,905
Summary of associates position:		
At the beginning of the year	36,952	26,746
Share of profit for the year:		
ElSewedy Electric Zambia Limited	15,604	5,301
Zambia Electrometer Limited	6,643	4,905
	22,247	10,206
Total closing position for both associates	59,199	36,952



## 16.2. Investments in Strategic Reserve Fund

Figures in ZMW	2018	2017
ERB strategic reserve fund	19,580	13,596

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 currently still work in progress.

## 17. Inventories

Figures in ZMW	2018	2017
Materials	831,912	838,337
Goods in transit	21,491	145,599
Fuel and lubricants	11,393	13,244
Spares	9,451	8,095
	874,247	1,005,275
Allowance for obsolescence	(4,656)	(2,512)
	869,591	1,002,763

The cost of inventories recognised as an expense during the year was K226 million (2017: K256 million).

Inventories are disclosed net of provision for obsolete stock amounting to K4.6 million (2017: K2.5 million).

## 18. Trade and other Receivables

Figures in ZMW	2018	2017
The balance comprises:		
Gross trade receivables	6,392,582	4,841,523
Impairment allowance	(4,963,596)	(3,524,635)
	1,428,986	1,316,888
Other receivables		
Other receivables	1,446,833	1,543,020
Staff receivables	9,144	53,998
Prepayments	40,183	1,205
Allowance for doubtful debts	(253,653)	(478,871)
	1,242,507	1,119,352
Total trade and other receivables	2,671,493	2,436,240
The movement in allowance for doubtful trade receivables is as follows:		
Balance at beginning of year	3,524,635	5,048,851
Reversal of impairment losses recognised on trade receivables	(91,452)	(1,682,886)
Additional provision prior year	243,089	-
Impairment losses recognised on trade receivables	1,287,324	158,670
At end of the year	4,963,596	3,524,635
The movement in allowance for doubtful debts for other receivables is as follows:		
Balance at beginning of year	478,871	465,339
Impairment losses recognised on other receivables	27,718	15,772
Reversal of impairment losses recognised on other receivables	(252,936)	(2,240)
At end of the year	253,653	478,871

The following tables detail the risk profile of trade receivables based on the Group provision matrix. As the Groups' historical credit loss experience shows significantly different loss patterns for different customer segments, the provision for loss allowance based on past due status is not further distinguished between the companies' different customer bases.

### 31 December 2018

Figures in ZMW	Not past due	0-30 past due	31-60 past due	61-90 past due	More than 90 days past due	Total
Expected credit loss rate	-	21%	29%	32%	99%	78%
Estimated total gross carrying Amount at default	-	809,361	581,020	507,263	4,494,938	6,392,582
Lifetime ECL	-	171,991	170,743	160,376	4,460,486	4,963,596
	-	637,370	410,278	346,887	34,451	1,428,986
31 December 2017						
Figures in ZMW	Not past due	0-30 past due	31-60 past due	61-90 past due	More than 90 days past due	Total
Expected credit loss rate	-	22%	22%	22%	90%	73%
Estimated total gross carrying Amount at default	-	490,129	436,889	281,550	3,632,954	4,841,523
IAS 39 Allowance for doubtful receivables	-	(110,262)	(95,036)	(60,667)	(3,258,670)	(3,524,635)
As previously stated	-	379,867	341,853	220,883	374,284	1,316,888
Transition adjustment IFRS 9	-	(7,053)	(36,132)	(22,371)	(177,533)	(243,089)
	-	372,814	305,721	198,512	196,751	1,073,799

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

The following table shows the movement in lifetime ECL that has been recognised for trade receivables in accordance with the simplified approach set out in IFRS 9.

Balance as at 31 December 2017 under IAS 39		(3,524,635)
Adjustment upon adoption of IFRS 9		(243,089)
Balance as at 1 January 2018 – As restated		(3,767,724)
Transfer to allowance for doubtful receivables		(1,287,324)
Reversal of impairments on trade receivables		91,452
		(4,963,596)
Ageing of past due but not impaired trade receivables		
30 - 60 days	6,160	67,419
60 - 90 days	8,699	61,762
Over 90 days	182,052	90,484
	196,911	219,665

The average credit period on sales of goods is 60 days. Penalties are charged for late payment on mining customers.

The Group measures the loss allowance for trade receivables at an amount equal to lifetime ECL. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors, general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast direction of conditions at the reporting date. The Company has recognised a loss allowance of 100% against all receivables over 120 days past due because historical experience has indicated that these receivables are generally not recoverable.

The Group writes off a trade receivable when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or when the trade receivables are over two years past due, whichever occurs earlier. None of the trade receivables that have been written off is subject to enforcement activities.

30 - 60 days	-	-
60 - 90 days	-	-
Over 90 days	3,464,606	3,464,606
	<b>3,464,606</b>	<b>3,464,606</b>

### Trade Receivables placed as Security

Part of Copperbelt Energy receivables have been assigned as security for China Exim Bank Loan which was procured to finance the construction Kariba North Power Extension Corporation Limited. The Kalumbila receivables have been assigned 100% towards the Power Purchases from Maamba Collieries.

## 19. Share Capital

Figures in ZMW	2018	2017
Authorised		
2,500,000,000 ordinary shares of K2 each	5,000,000	400
Issued and fully paid		
1,412,559,015 ordinary shares of K2 each	2,825,118	194
Movement during the year:		
At beginning of year	194	194
Issued shares	2,824,924	-
At 31 December 2018, 1,412,559,015 ordinary shares of K2 each	2,825,118	194

## 20. Amounts Pending Allotment of Shares

Figures in ZMW	2018	2017
Shares pending allotment (a)	-	21
Shares pending allotment (b)	-	1,654,785
Shares pending allotment (c)	-	1,170,118
	-	2,824,924

(a) Shares pending allotment were converted to ordinary shares in 2018. This followed the shareholder resolution to increase the authorised share capital from 200,000 shares to 2,500,000 shares at K2 each resulting in share capital of K5, 000,000,000.

(b) The issued share capital was also increased from 96,894,542 shares at K0.002 to 1,412,462,000 shares at K2. The authorised but not issued shares amount to 1,087,538,000 unissued shares for future utilisation.

(c) On 5 April 2018, the Company issued 1,412,559,015 additional shares at K2 per share.

## 21. Related Party Transactions

The Group's immediate and ultimate holding company is Industrial Development Corporation Zambia Limited incorporated in Zambia.

(i) Trading transactions

Figures in ZMW	2018	2017
Rendering of services	168,068	194,616
Purchases of services	(1,413,134)	(259,281)

(ii) Year end balances

Amounts due from related parties

Itezhi tezhi Power Corporation Limited (ITTPC) incorporated in Zambia	458,282	325,324
Government of the Republic of Zambia	2,657,600	1,905,781
Rural Electrification Authority	14,531	3,821
Zambia Electrometer Limited, incorporated in Zambia	2,675	2,209
	3,133,088	2,237,135

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. However, in the prior year the entire balance due from Government had been provided for. These amounts are as a result of the trading activities of the Group.

(b) Amounts due to related parties

Figures in ZMW	2018	2017
Itezhi Tezhi Power Corporation Limited (ITTPC) incorporated in Zambia		
	2,333,810	1,133,828
Elsewedy Electric Zambia Limited	84,604	100,065
Zambia Electrometer Limited	9,266	-
	2,427,680	1,233,893

Itezhi Tezhi Power Corporation is a joint venture investment with 50% shareholding. Elsewedy Electric Zambia Limited and Zambia Electrometer Limited are associates.

(c) Key management personnel remuneration

Figures in ZMW	2018	2017
Figures in ZMW	2018	2017
Key management remuneration	13,860	12,135
Directors fees	3,417	1,504
	17,277	13,639

## 22. Operating Lease Commitments

### Rental expense on leasehold building

Operating lease payments represent rentals payable by the Group for the building used as the Group's customer service centres.

Minimum lease payments paid under operating leases recognised as an expenses in the year.	11,000	8,785
---	--------	-------

At the reporting date, the Group had no outstanding commitments

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

under non-cancellable operating leases.

## 23. Borrowings

Figures in ZMW	2018	2017
The movement on loan is as follows:		
At beginning of year	13,462,755	13,336,760
Prior year adjustment	-	3,658
Borrowings arising during the year	6,925,241	1,133,770
Net exchange losses	4,171,429	30,880
Repayments made during the year	(2,330,626)	(1,042,313)
Balance at end of the year	22,228,799	13,462,755
The borrowings are repayable as follows:		
On demand or within one year	1,790,821	1,549,061
Loans payable within 1 to 2 years	2,140,260	2,187,965
Loans payable within 3-5 years	4,337,285	3,281,947
Loans payable over 5 years	13,960,433	6,443,782
Due after one year	20,437,978	11,913,694
	<b>22,228,799</b>	<b>13,462,755</b>

The borrowings are due to the following:

Figures in ZMW	2018	2017
i Industrial Commercial Bank of China and the Export Import Bank of China	6,509,369	-
ii Industrial Commercial Bank of China	3,058,246	2,834,097
iii China Exim Bank	2,236,276	2,131,582
iv Nordea Stanbic Bank	1,455,484	1,324,283
v Standard Chartered Bank	1,164,749	1,214,303
vi DBSA - Kafue George Hydro Power Station	1,147,992	995,330
vii DBSA - Kariba North Bank Extension Power Corporation Limited	698,291	662,300
viii China Exim	537,797	448,542
ix GRZ/International Development Association- Kafue Muzuma	496,468	407,204
x European Investment Bank	493,519	411,612
xi India Exim Bank	484,156	471,104
xii GRZ/International Development Agency	429,602	164 989
xiii GRZ/Agency Francaise De Development	410,526	342,394
xiv African Development Bank	369,686	305 684
xv Industrial Commercial Bank of China Facility Loan - Musonda Falls	357,362	298 053
xvi Industrial Commercial Bank of China Facility -Mpika Transmission	256,616	57 550
xvii European Investment Bank - LTDRP loan facility	183,945	22 578
xviii Industrial Commercial Bank of China Facility-Chipata-Lundazi	176,969	73 625
xix Standard Bank	176,432	206,010
xx China Machinery Engineering Corporation Limited	176,397	-
xxi European Investment Bank	168,240	140,319
xxii China Jiangxi Bridge Finance	164,202	-
xxiii Stanbic Bank	100,894	151,469



Figures in ZMW		2018	2017
xxiv	GRZ/Japan International Cooperation Agency	95,558	46 645
xxv	Mpande Limestone Limited - Bridging Finance	91,913	-
xxvi	China Exim Bank-Ii Kabwe-Pensulo	91,166	-
xxvii	ATLASMARA (Z) Bank Limited	87,515	-
xxviii	Development Bank of Southern Africa Bank 1	75,343	88 006
xxiv	Industrial Development Corporation Limited DC-Shareholder Loan	73,990	-
xxx	Nigeria Trust Fund	71,572	59,693
xxxi	GRZ/World Bank	52,661	43,921
xxxii	ZANACO - Short Term Facility	52,299	113,827
xxxiii	Bank of China	48,225	120 665
xxxiv	CNMC Industrial Zone Development	44,235	44 272
xxxv	Agency Francaise de Development	40,920	35 681
xxxvi	Stanbic Bank	39,056	97,722
xxxvii	GRZ/World Bank Facility 2	38,638	32 226
xxxviii	European Investment Bank 2	36,322	38 710
xxxvii	ATLASMARA (Z) Bank Limited	19,890	-
xxxv	Mpande Limestone Limited	11,733	-
xxxvii	Barclays Bank Zambia Plc	4,546	25 549
xxxviii	Sinohydro Bridging Loan II-Musonda Falls	-	28,841
xxxvix	Zambia National Commercial Bank Plc	-	13,318
xxxv	Standard Chartered Bank	-	10 652
		22,228,799	13,462,755

#### i. Industrial Commercial Bank of China and the Export Import Bank of China

On 13 November 2017, a facility agreement of up to USD 1, 530, 576, 039.16 was signed between Kafue Gorge Lower Power Development Corporation Limited, Industrial and Commercial Bank of China Limited and The Export-Import Bank of China. Drawdowns had only began after the financial close was achieved in June 2018. As at 31 December 2018 KGL had drawn down a total of \$551,291,040 (ZMW 5,564,221).

#### ii. 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.

#### iii. 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.

#### iv. Nordea Stanbic Bank

This is a US\$133million 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. Standard Chartered Bank (\$122m)

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.

#### vi. 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.

#### vii. Development Bank of South Africa (DBSA) (KNBEPC)

The borrowing is a term loan facility of US\$105.5 million from the Development Bank of Southern Africa Limited. The loan is used to finance the Kariba North Bank Extension Power Corporation project. The loan is to be repaid in equal instalments semi-annually

## Financial Statements | Notes to the Financial Statements

*For the year ended 31 December 2018*

commencing on 31 January 2013. The amount of repayments during the year was US\$12,3million.

Interest is charged semi-annually as the sum of the margin (4.95% before commencement of operations and 4.70% after commencement of operations) and 6 month LIBOR. The loan has a second ranking security on property, plant and machinery of the project and is denominated in United States Dollars. "

### **viii. 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.

### **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. 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 Itzhi-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\$41.3 million or K411.6 million.

### **xi. 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 instalments. 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.

### **xii. 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.

### **xiii. GRZ/Agence Française De Développement**

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 Itzhi 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.

### **xiv. 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\$29.6 million or K305.7 million.

### **xv. 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.

### **xvi. 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 loan facility is in United States Dollar and the balance at the reporting date was US\$11.5 million or K137.1 million.

### **xvii. 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 instalments 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.

### **xviii. 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.

### **xix. 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 North-western 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.

#### **xx. China Machinery Engineering Corporation (CMEC)**

This is a US\$15 million facility (Bridging finance) obtained from China Machinery Engineering Corporation (CMEC) by ZESCO Limited on the 31 May 2018. The facility was obtained for the construction of Lusiwasi Upper Hydropower Station. The tenure of the facility is 18 months from the date when the agreement came into effect to the date when the funds are available from the financial institutions. Funds and Interest shall be repaid at once after ZESCO Limited obtains financing or in twelve equal instalments whichever comes earlier. The interest is charged at 6% fixed per annum. The balance at the reporting date was US\$14.78 million or K176.4 million.

#### **xxi. 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 instalments 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 K168.2 million.

#### **xxii. China Jianxi International**

This is a US\$16.94 million facility (Bridging finance) obtained from China Jiangxi International Corporation (CJIC) by ZESCO Limited on the 20 August 2018. The facility was obtained for the construction of the second Kabwe Step-down-Pensulo 330KV Transmission Line project. The tenure of the facility is 16 months. Funds and Interest shall be repaid in 16 successive instalments. The interest is charged at 10% fixed per annum. The balance at the reporting date was US\$13.76 million or K164.2 million.

#### **xxiii. 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 instalments of 55 months. The Letter of Credit was secured against the Company's receivables. The facility is in United States Dollar and the balance at reporting date was US\$8.4 million or K100.9 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 884 million or K95.6 million.

#### **xxv. Mpande Limestone (Z) Limited**

The facility was obtained (Bridging Finance) for the power connection to Mpande Limestone (Z) Limited on 23 March 2018. It

is to be paid in 45 months. The interest on this facility is at 4.5%. The balance at the reporting date was US\$7.7 million or K91.9 million.

#### **xxvi. The Export-Import Bank of China**

This is a US\$114 million facility obtained from Export-Import Bank of China (EXIM Bank of China) by ZESCO Limited on the 15 December 2017. The facility was obtained for the construction of the Second Kabwe Stepdown-Pensulo 330KV Transmission Line project. The tenure of the facility is 15 years. Funds and Interest shall be repaid in 24 successive semi-annual instalments. The interest is charged at 3% margin plus LIBOR per annum. The balance at the reporting date was US\$7.64 million or K91.17 million.

#### **xxvii. ATLASMARA (Z) Limited**

This is a US\$8 million Short Term Loan facility obtained from African Banking Corporation (Z) Limited on 8 October 2018 by Zesco Limited to enable the Borrower procure Duplex Cable and other materials to reduce on the backlog of standard connections. Interest is charged at 9.5% and the loan (principal plus interest) will be repaid within 2 years. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$7.3 million or K87.52 million.

#### **xxviii. 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. This is a related party Loan between the Parent Company and its subsidiary (ZESCO Limited). The loan facility has a fixed interest rate of 15.25% per annum. The balance as at the reporting date was ZAR91.1 million or K75.3 million.

#### **xxiv. Industrial Development Corporation Limited (IDC)**

This is a US\$10 million facility obtained from the Industrial Development Corporation Limited (IDC) by ZESCO Limited on the 20 September 2018. The facility was obtained for the purpose of discharging its debt obligation for power purchases to Maamba Collieries Limited (MCL) as at 31 August 2018. The tenure of the facility is 15 months. Funds and Interest shall be repaid in 12 successive instalments. The Loan is secured over the Buildings placed as collateral by ZESCO Limited. The interest is charged at 1.5% fixed per annum. The balance at the reporting date was US\$6.2 million or K74 million.

#### **xxx. Nigeria Trust Fund**

This is a US\$6.4 million loan facility obtained from the Nigerian 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 Itezhi-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\$6.0 million or K71.6 million.

#### **xxxi. 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

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

the reporting date was US\$4.4 million or K52.7 million.

### xxxii. ZANACO Short-term 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\$4.4 million or K52.3 million.

### xxxiii. 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\$4.0 million or K48.2 million.

### xxxiv. 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.

### xxxv. Agency 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 K41.0 million.

### xxxvi. 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 instalments of 55 months. The Letter of Credit was secured against the Company's receivables. The facility is in noted States Dollar and the balance at reporting date was US\$3.3 million or K39.1 million.

### xxxvii. 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 K38.6 million.

### xxxviii. 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 Uprating 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 EUR2.7 million or K36.3 million.

### xxxvii. Atlas Mara Bank (Z) Limited

This is a US\$5 million facility (Short Term Facility) obtained from AtlasMatra Bank (Z) Limited by ZESCO Limited on the 3 April 2018. The facility was obtained to enable the Borrower (Zesco Limited) to meet supplier payments to Aggrekko and Karpowership for emergency power that was imported in 2016. The tenure of the facility is one year. Principal and Interest shall be repaid monthly. The interest is charged at 9.5% fixed per annum. The loan is denominated in United States Dollar. The loan balance at the reporting date was US\$1.67 million or K19.89 million.

### xxxv. Mpande Limestone (Z) Limited

This is an interest free facility of US\$2.5 million, is governed by the Connection Agreement (CA) signed on 30 December 2016, and the Power Supply Agreement (PSA) signed on 23 March 2018. The recoveries on this facility is through monthly invoices to Mpande by Zesco and the final repayment date is the date of the invoice on which the last repayment deductions towards Zesco Capital Contribution is made. The facility is denominated in United States Dollars currency and closing balance as at the reporting date was US\$968,764.34 or K11.7 million.

### xxxvii. 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\$0.38 million or K4.6 million.

### xxxviii. 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 \$0.00 million or K00.0 million.

### xxxvix. Zambia National Commercial Bank Plc

This was 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\$0.00 million or K0.00 million. The facility is secured by company's collections and guarantee from the Government of the Republic of Zambia.

### xxxvv. 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\$0.00 million or K0.00 million.

#### Breach of loan agreements

##### (i) European Investment Bank

The Group 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 Group was not in compliance with the Barclays Bank letter of credit as the interest was below 1.5 times and the current ratio was less than 1.

##### (iii) Development Bank of Southern Africa

The Group was non-compliant with the DBSA loan covenants 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 1.2:1 was compliant to the covenant of 1.5:1 or less, we were not compliant to the Gross Debt to EBITDA was 34:1; and the Debt Service Cover Ratio was less than 1.25.

##### (v) Stanbic Bank

The Group 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 were compliant with the Debt to Equity percentage which was less than 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 Group was non-compliant as the EBITDA to Total Interest Cost was less than 2 and; we were compliant to the ratio of Total Liabilities to Total Assets was less than 70%.

##### (vii) ZANACO

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 Group pays fixed contributions into the National Pension Scheme Authority, which is a defined contribution plan. The Group 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 Group's contributions to the defined contribution schemes are charged to profit or loss in the year to which they relate. The Group has no further obligation once contributions have been paid.

The total expense recognised in the profit or loss of K60.3 million (2017 - K60.9 million) represents contributions payable to these plans by ZESCO.

##### (ii) LASF defined benefit plan

In accordance with IAS 19 Employee Benefits paragraph 62 and 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 Group 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 Group 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 K23.8 million (2017: K25 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:

Figures in ZMW	2018	2017
At beginning of the year	2,188,765	2,032,522
Current service cost	292,137	413,149
Benefits paid during the year	(206,492)	(256,906)
At 31 December	2,274,410	2,188,765
Disclosed in the financial statements as:		
Non-current	2,096,160	2,063,280
Current	178,250	125,485
	<b>2,274,410</b>	<b>2,188,765</b>



## 25. Capital Grants and Capital Contributions

Figures in ZMW	Capital grants	Capital contributions	Total
At 1 January 2017	325 279	1204 260	1529 539
Additions during the year	-	991 466	991 466
Amortisation of capital grants and contributions	(21,780)	(80,607)	(102,387)
At 31 December 2017	303,499	2,115,119	2,418,618
Additions during the year	32 698	432,158	464 856
Amortisation of capital grants and contributions	(22,414)	(129,011)	(151,425)
At 31 December 2018	313,783	2,418,266	2,732,049
Maturity analysis:			
Non current		2,602,043	2,308,755
Current		130,006	109,863
Total		2,732,049	2,418,618

## 26. Trade and Other Payables

Figures in ZMW	2018	2017
Trade payables	12,081,697	6,407,204
Sundry payables and accrued expenses	1,065,654	607,968
Employee related accruals	359,686	352,940
	13,507,037	7,368,112

Trade and other payables principally comprise amounts outstanding in respect of trade purchases and ongoing costs, as well as amounts accrued in respect of operating costs.

The average credit period on purchases of certain goods is 30 days. No interest is charged on trade payables. The Group 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

Figures in ZMW	2018	2017
Barclays Bank Zambia Plc	15,279	52,948
Zambia National Commercial Bank Plc	39,654	41,876
	54,933	94,824

Barclays Bank Zambia Plc

An overdraft banking facility amounting to K50 million. The overdraft was agreed in January 2018 with a 12 month tenor with interest payable monthly at three month LIBOR plus 8.5%. The facilities are repayable strictly on demand. The amount drawn as on 31 December 2018 under this facility is K15.3 million (2017: K52 million). The facility is secured against unlimited collections held in the bank

accounts from time to time.

Zambia National Commercial Bank Zambia Plc

An overdraft banking facility amounting to K50 million. The overdraft was agreed in January 2018 with a 12 month tenor with interest payable monthly at three month LIBOR plus 9.0%. The facilities are repayable strictly on demand. The amount drawn as on 31 December 2018 under this facility was K39.6 million (2017: K41 million). The facility is secured against unlimited collections held in the bank accounts from time to time.



## 28. Financial Instruments

### Capital risk management

The Group 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 the debt and equity balance. The Group's overall strategy remains unchanged from prior year.

The capital structure of the Group consists of cash and cash equivalents, interest bearing liabilities and equity attributable to equity holders of the Group, comprising issued capital, reserves and retained earnings.

### Gearing ratio

The Group 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 Group has a gearing ratio of **49%** (2017: 36%) determined as the proportion of net debt to equity.

The gearing ratio at the yearend was computed as follows:

Figures in ZMW	2018	2017
Debt (i)	22,228,799	13,462,755
Equity (ii)	22,891,837	24,089,690
Total debt and equity	49%	36%

### 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 consolidated 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

Figures in ZMW	2018	2017
Financial assets:		
- Amounts due from related parties	3,133,088	2,237,135
- Trade and other receivables	1,428,986	1,316,888
- Bank and cash	2,460,653	2,062,566
	7,022,727	5,616,589
Financial liabilities:		
- Amounts due to related parties	2,427,680	1,233,893
- Trade and other payables	12,081,697	6,407,204
- Borrowings	22,228,799	13,462,755
- Bank overdraft	54,933	94,824
	36,793,109	21,198,676

Financial risk management objectives

The Group'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 Group. 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 Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

### Market risk

The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates. The Group 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 Group's exposure to market risks or the manner in which it manages and measures the risk.

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

### Foreign currency risk management

The Group 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 Group's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:

	Financial assets		Financial liabilities	
Figures in ZMW	2018	2017	2018	2017
United States Dollar (\$)	14,430,499	9,154,085	25,582,718	19,269,015
Japanese Yen (JPY)	-	-	95,558	46,645
South Africa Rand (ZAR)	74,398	35,673	75,343	88,006
<b>Euro</b>	-	50,826	86,885	56,832
<b>GBP</b>	-	-	-	6,240

### 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:

		Scenario 1	Scenario 2
		5% increase in variable interest rates	5% decrease in variable interest rates
At 31 December 2018			
Loss before tax	(2,722,381)	(2,858,500)	(2,586,262)
At 31 December 2017			
<b>Profit before tax</b>	<b>616,329</b>	<b>647,145</b>	<b>585,513</b>

### Interest rate risk management

The Company, its subsidiaries, associates and joint venture are 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, its subsidiaries, associates and joint venture'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 Group. The Group is exposed to credit risk in respect of trade and other receivables. As at the financial period end the Group had trade receivables which were due from the Group's customers.

The Group's maximum exposure to credit risk is analysed below:

Figures in ZMW	2018	2017
Amounts due from related parties	3,133,088	2,237,135
Bank and cash balances	2,460,653	2,062,566
Trade and other receivables	1,428,986	1,316,888
	7,022,727	5,616,589
<b>The maximum exposure to credit risk for trade receivables at the reporting date by key customer sector was:</b>		
Mining	5,202,576	3,916,140
Exports	237,496	364,767
Domestic customers	146,994	213,596
The Local authorities and water utilities	507,018	195,308
Government and related entities	253,109	132,744
Industrial and related sectors	18,933	13,817
Agriculture and related sectors	5,014	5,151
	6,371,140	4,841,523

## Financial Statements | Notes to the Financial Statements

For the year ended 31 December 2018

### Liquidity risk management

The Group 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 Group's remaining contractual maturity for its non-derivate financial assets and liabilities. The table below has been drawn up based on the undiscounted contractual maturities of the financial assets and liabilities.

#### Year ended 31 December 2018

Figures in ZMW	Payable on demand	1 - 3 months	3 months to 1 year	Above 1 year	Total
Financial liabilities					
- Trade and other payables	-	-	12,081,697	-	12,081,697
- Bank overdraft	54,933	-	-	-	54,933
- Borrowings	-	-	1,790,821	20,437,978	22,228,799
- Amounts due to related parties	-	-	-	2,427,680	2,427,680
	54,933	-	13,872,518	22,865,658	36,793,109
Financial assets					
- Amounts due from related parties	-	-	3,133,088	-	3,133,088
- Trade and other receivables	-	-	1,428,986	-	1,428,986
- Bank and cash balances	2,460,653	-	-	-	2,460,653
	2,460,653	-	4,562,074	-	7,022,727
Year ended 31 December 2017					
Financial liabilities					
- Trade and other payables	-	-	6,407,204	-	6,407,204
- Bank overdraft	94,824	-	-	-	94,824
- Borrowings	-	-	1,549,061	11,913,694	13,462,755
- Amounts due to related parties	-	-	-	1,233,893	1,233,893
	94,824	-	7,956,265	13,147,587	21,198,676
Financial assets					
- Amounts due from related parties	-	-	2,237,135	-	2,237,135
- Trade and other receivables	-	-	1,316,888	-	1,316,888
- Bank and cash balances	2,062,566	-	-	-	2,062,566
	2,062,566	-	3,554,023	-	5,616,589

Figures in ZMW	2018		2017	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Loans and receivables:				
- Amounts due from related parties	3,133,088	3,133,088	2,237,135	1,303,547
- Trade and other receivables	1,428,986	1,428,986	1,316,888	1,777,868
Total	4,562,074	4,562,074	3,554,023	3,081,415
Financial liabilities				
- Borrowings	22,228,799	22,228,799	13,462,755	13,336,760
- Trade and other payables	12,081,697	12,081,697	3,858,126	3,858,126
- Bank overdraft	54,933	54,933	70,393	70,393
Total	34,365,429	34,365,429	17,391,274	17,265,279

Fair value hierarchy as at 31 December 2018

Figures in ZMW	Level 1	Level 2	Level 3	Total
Financial assets				
Loans and receivables:				
- Amounts due from related parties	-	-	3,133,088	3,133,088
- Bank and cash balances	-	-	2,460,653	2,460,653
- Trade and other receivables	-	-	1,428,986	1,428,986
Total	-	-	7,022,727	7,022,727
Fair value hierarchy as at 31 December 2017				
Financial liabilities:				
Financial liabilities held at amortised cost:				
- Amounts due to related parties	-	-	2,427,680	2,427,680
- Trade and other payables	-	-	12,081,697	12,081,697
- Borrowings	-	-	22,228,799	22,228,799
- Bank overdraft	-	-	54,933	54,933
Total	-	-	36,793,109	36,793,109
Financial assets				
Loans and receivables:				
- Amounts due from related parties	-	-	2,237,135	2,237,135
- Trade and other receivables	-	-	1,316,888	1,316,888
- Bank and cash	-	-	2,062,566	2,062,566
Total	-	-	5,616,589	5,616,589
Financial liabilities:				
Financial liabilities held at amortised cost:				
- Amounts due to related parties	-	-	1,233,893	1,233,893
- Trade and other payables	-	-	6,407,204	6,407,204
- Borrowings	-	-	13,462,755	13,462,755
- Bank overdraft	-	-	94,824	94,824
Total	-	-	21,198,676	21,198,676

*For the year ended 31 December 2018*

## 29. Contingent Liabilities

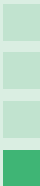
Figures in ZMW	2018	2017
Authorised by the directors but not contracted for	4,515,600	8,450,607

There were no known material contingent liabilities at 31 December 2018 and 31 December 2017.

## 30. 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 consolidated financial statements that require disclosure in or adjustment to the consolidated financial statements.







## Email

---

[zesco@zesco.co.zm](mailto:zesco@zesco.co.zm)  
[www.zesco.co.zm](http://www.zesco.co.zm)



## Phone

---

Tel: +260 211 361111



## Address

---

Company Secretary  
ZESCO Head Office  
6th Floor  
6949 Great East Rd  
P.O Box 33304, Lusaka, Zambia.