



# **ZESCO**

## **Integrated Report**

2022

# 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 2022 Integrated Report for publication.



**Mr. Vickson Ncube**  
Chairman



**Eng. Victor B Mapani**  
Managing Director



**Mr. Emmanuel M Banda**  
Director - Investments  
and Finance



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

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## Mission Statement

To provide efficient, innovative, and excellent electricity services and energy solutions to our local and international customers.



## Vision

To be an effective provider of reliable and environmentally sustainable electricity services to all our customers by 2032.



## Values

### Integrity

We uphold fairness, accountability and truthfulness in our actions. We conduct ourselves in an honest and ethical manner.

### Customer Centricity

The customer is our focal point in our delivery of excellent services. We will care for, understand, respect and support our customers.

### Innovation

We will continuously keep abreast with, develop, implement and use modern technology in our business.

### Teamwork

We endeavour to work as a team in our quest to serve our customers through understanding, respecting, and supporting one another (Team Work Works).

### Safety and Environmental Sustainability

We shall adhere to the highest safety practices and endeavour to protect our stakeholders from danger, risk or injury in all our operations. We shall apply business solutions that enable us to go in a manner that has the least adverse effects on the environment.



# Glossary

## A

ABSA - Amalgamated Banks of South Africa  
ADB - African Development Bank

## B

bn - Billion  
BSA - Bulk Supply Agreement

## C

CAIDI - Customer Average Interruption Duration Index  
CEC - Copperbelt Energy Corporation  
CNMC - China Nonferrous Metal Mining Corporation

## D

DBSA - Development Bank of Southern Africa

## E

EBITDA - Earnings Before Interest, Taxes, Depreciation, and Amortization  
EIB - European Investment Bank  
ERB - Energy Regulation Board  
ERM - Enterprise Risk Management  
ESD - Environmental Sustainability Department  
ESI - Electricity Supply Industry  
EUR - Euro

## F

FDI - Foreign Direct Investment

## G

GBP - British Pound  
GDP - Gross Domestic Product  
GRZ - Government of the Republic of Zambia  
GWh - Gigawatt hour

## I

IDC - Industrial Development Corporation  
IMF - International Monetary Fund  
IPP - Independent Power Producer  
IRP - Integrated Resource Plan  
ITPC - Itezhi Tezhi Power Corporation Limited

## J

JICA - Japan International Cooperation Agency

## K

KGL - Kafue Gorge Lower  
KGLP - Kafue Gorge Lower Power Station  
KGRTC - Kafue Gorge Regional Training Centre  
kV - Kilovolt

KWh - Kilowatt hour

## L

LASF - Local Authorities' Superannuation Fund  
LIBOR - London Interbank Offered Rate

## M

MW - Megawatts

## N

NAPSA - National Pension Scheme Authority

## O

OHL- Overhead Line  
OPPP - Office for Promoting Private Power Investments

## P

PPA - Power Purchase Agreement

## R

REA - Rural Electrification Authority

## S

SAIDI - System Average Interruption Duration Index  
SAIFI - System Average Interruption Frequency Index  
SDG - Sustainable Development Goal  
SDF - Skills Development Fund  
SHEQ - Safety, Health, Environment, and Quality

## T

TEVETA - Technical Education, Vocational and  
Entrepreneurship Training Authority

## U

USD - United States Dollar

## Z

ZAM - Zambia Association of Manufacturers  
ZANACO - Zambia National Commercial Bank  
ZAR - South African Rand  
ZESCO - Zambia Electricity Supply Corporation Limited  
K - Zambian Kwacha  
ZNFU - Zambia National Farmers Union  
ZRA - Zambezi River Authority









# Group Highlights

## 2022 Group Highlights

## Performance

<div>Group Revenue</div> <div>-7% ▼</div> <div>K21.0 bn</div> <div>2021K22.0 bn</div>	<div>Net Profit Margin</div> <div>-7% ▲</div> <div>47%</div> <div>2021-114%</div>	<div>Generation</div> <div>7% ▼</div> <div>11,615 GWh</div> <div>202112,426 GWh</div>
<div>Operating Profit/ Loss</div> <div>-173% ▼</div> <div>K0.5 bn</div> <div>2021K11.7 bn</div>	<div>Return on Capital Employed</div> <div>-169% ▼</div> <div>-1.5%</div> <div>2021-113%</div>	<div>Customer Base</div> <div>6% ▲</div> <div>1,202,924</div> <div>20211,130,628</div>
<div>Net Assets</div> <div>-10% ▼</div> <div>K12.3 bn</div> <div>2021K13.7 bn</div>	<div>Interest Cover</div> <div>-98% ▼</div> <div>0x</div> <div>2021-12.10x</div>	<div>Customer/ Employee ratio</div> <div>8% ▲</div> <div>178</div> <div>2021165</div>
<div>Current Ratio</div> <div>9% ▼</div> <div>0.28x</div> <div>20210.25x</div>	<div>Debt Level</div> <div>4% ▼</div> <div>K36.6 bn</div> <div>2021K35.1 bn</div>	<div>Head count (annual average)</div> <div>1% ▼</div> <div>6,760</div> <div>20216,853</div>
<div>Gearing</div> <div>4% ▼</div> <div>75%</div> <div>202172%</div>	<div>EBITDA</div> <div>0% ►</div> <div>K14%</div> <div>202114%</div>	

# Chairman's Report



**Mr Vickson Ncube**  
Chairman

## **Dear Stakeholder,**

I take this opportunity to reflect on another year for ZESCO Limited (ZESCO) and present the Chairman's report. Given the circumstances surrounding our industry, these times remain challenging, yet we have witnessed significant progress and resilience, thanks to the dedication of our management and staff.

## **2022: A Year of Transition and Adaptation**

The year 2022 presented the ZESCO Board and Management with a challenge to navigate the difficult path of starting to restore confidence in the Corporation by various stakeholders given legacy matters, among them, a backlog of customers who paid ZESCO and were never connected extending to periods of up to eight years, failure to honour terms of Power of Purchase Agreements (PPA) with Independent Power Producers (IPP) and failure to service debt. These challenges have made it difficult for the Corporation to access financing both locally and internationally and where such was available a high-risk premium is always factored in increasing the cost of borrowing. In addition to the legacy issues, the Corporation is still obligated to meet its day-to-day obligations to employees and suppliers.



The Board working with its management put in place confidence building measures. The following measures are of particular note:

- A program to speed up the connection of the 67,000 customers who had paid by December 2021 but not connected. The program included preventing the buildup of the backlog by connecting new customers.
- Negotiations with IPPs on the outstanding debts while ensuring that current invoices are paid as they fall due.
- Introducing a culture of paying obligations as they fall due.
- A program to move the Corporation to cost reflective tariffs that will not only start to address the liquidity challenges but also provide a stable and predictable investment climate.

### Global Economic Performance and Macroeconomic Context

The global economy showed signs of recovery in 2022, with various factors impacting our electricity sector. Commodity prices, particularly copper, experienced fluctuations that directly influenced Zambia's economic landscape. The recovery of copper prices, which are crucial to our economy, played a pivotal role in boosting the country's foreign reserves and reducing the external debt burden.

In 2022, Zambia's GDP surged to approximately USD 29.16 billion from USD 22.1 billion in the previous year. This growth, buoyed by stronger copper prices and increased mining activity, contributed positively to government revenues, enabling a more favourable economic outlook. Inflation, which had spiked to 22% in 2021, significantly decreased to 11% in 2022, indicative of improved economic stability.

However, foreign direct investment (FDI) reflected a decline, dropping to USD 65.1 million compared to USD 394.2 million in 2021. This emphasizes the need for ZESCO to enhance its investment attraction strategies, ensuring that we can secure the necessary capital for infrastructure development and technological advancements in the energy sector.

The exchange rate also improved, with the Zambian Kwacha appreciating to around K16.91 per USD in 2022, compared to K19.97 in 2021. This shift not only positively affected our purchasing power but also mitigated some of the currency-related losses we previously experienced.

### Strategic Implications and Future Outlook

In light of these macroeconomic variables, ZESCO is positioned to leverage both domestic and international developments to align with our strategic goals. Addressing the outstanding backlog and embracing opportunities for diversification in energy generation and distribution are paramount to our long-term success.

As we implement our Turnaround Strategy, our focus will remain on enhancing operational efficiencies, securing cost-reflective tariffs, and fostering relationships with key stakeholders. Engaging the Energy Regulation Board concerning tariff structures and service improvements will be critical as we work towards a sustainable operational model.

The opportunities presented by the copper market and overall economic stability provide a conducive environment for us to propel ZESCO into the next phase of growth. Our strategic partnerships and infrastructure investments will be pivotal in evolving into a leading regional player in the electricity sector.

### Strategic Direction: Emphasizing the 10-Year Rolling Strategy and Renewable Energy

As we look to the future, ZESCO is committed to implementing our 10-Year Rolling Strategy, which emphasizes sustainability and the integration of renewable energy sources. By 2032, we aim to significantly enhance our energy mix by investing in solar, wind, and hydropower generation. This commitment will not only align with global sustainability goals but also promote energy security and environmental stewardship in Zambia.

The advancement of our renewable energy initiatives is critical, especially in light of the ongoing challenges related to climate change. We recognize the pressing need to adapt to changing environmental conditions and are dedicated to reducing our carbon footprint. Our strategy encapsulates a shift towards cleaner, sustainable energy solutions, which we believe are essential to supporting national development and attracting investment.

In parallel to our renewable energy focus, we aim to enhance operational efficiencies across our power generation, transmission, and distribution systems. By leveraging cutting-edge technologies and innovative practices, we will strive to deliver reliable electricity that meets the evolving needs of our customers.

In addition to expanding our renewable energy portfolio, we will continue to foster strategic partnerships with stakeholders, including independent power producers, government agencies, and international organizations, to facilitate the growth and sustainability of the energy sector.

### Appreciation

I extend my heartfelt appreciation to our management team for their unwavering commitment during this challenging yet transformative period. I also thank our shareholders, stakeholders, and the communities we serve for their continued support and faith in ZESCO. Together, we will strive to enhance our service provision and embrace opportunities for growth.

In conclusion, ZESCO remains steadfast in its resolve to achieve operational efficiency and sustainability. Let us embark on this journey together, committed to powering Zambia and the region.



**Mr Vickson Ncube**  
Chairman

# Managing Director's Report



**Eng. Victor Benjamin Mapani**  
Managing Director

## **Dear Valued Stakeholder,**

As we reflect on 2022, I wish to express my heartfelt gratitude to every member of the ZESCO family whose unwavering dedication has been instrumental in steering our company through these challenging times. Your hard work and resilience have ensured that we continue to fulfill our mission of providing stable and quality electricity, vital for our nation's economic heartbeat.

## **Navigating Challenges**

This year, ZESCO has faced multifaceted challenges, both operational and financial. It is no secret that ZESCO has endured financial strain, with a notable backlog of payments amounting to 67,000 as of December 31, 2021. Our focus on dismantling this backlog is critical, and during this journey, we have secured a loan of USD 58 million to aid in this endeavor.

Our financial landscape paints a complicated picture. While revenue for 2022 declined to K20.55 billion from K22.00 billion in 2021, we continue to prioritize addressing our debt, which rose to K36.61 billion. Exchange rate fluctuations exerted pressure on our balance sheet, resulting in realized loss and further emphasizing the urgency for a strategic response.



### Cost-Reflective Tariffs as a Catalyst for Investment

At the heart of our strategic focus lies the necessity for cost-reflective tariffs. Such tariffs are not just essential for ensuring ZESCO's sustainability but also vital for attracting significant investments in the energy sector. Implementing accessible and cost-reflective pricing for electricity will enable us to recover operational costs, secure our financial footing, and, most importantly, encourage the influx of both local and foreign investments.

Currently, our burgeoning debt to Independent Power Producers, which stands at an unsustainable USD 1.8 billion, is a pressing concern. This debt hampers our ability to attract new investments and impedes our operational flexibility. Consequently, it is imperative that we prioritize the resolution of this debt. Reducing this financial burden will not only enhance our credibility within the investment community but also pave the way for strategic partnerships that drive growth and expansion.

As we work diligently to dismantle this debt, ZESCO is committed to open collaboration with all stakeholders, including the government and financial institutions, to explore viable debt relief solutions. We understand that addressing this issue is fundamental to regaining investor confidence and fostering a conducive environment for future investment.

### Restoration and Growth

The recent partnership with Maamba Collieries, securing a reduced purchase tariff, is a positive step toward more sustainable energy sourcing. Additionally, our agreement with Copperbelt Energy Corporation for the bulk supply of power under improved terms reflects our commitment to securing better rates and stabilizing our financial outlook.

In line with our growth aspirations, ZESCO remains committed to diversifying our energy portfolio. Discussions to secure participation in the Mphanda Nkuwa Hydropower Project in Mozambique present exciting opportunities to enhance our capacity and reach. As we engage with ETC Holdings, we foresee tremendous benefits that will maximize our contribution to regional energy security.

### Financial Management and Strategic Focus

As we advance, prudent financial management is paramount. The Board has approved various initiatives to tackle our working capital challenges. Our focus remains on cost-reflective tariffs, which are vital for offsetting operational costs and facilitating investment in infrastructure improvements. By harnessing our collective expertise, we aim to breathe new life into ZESCO and enhance our service delivery.

Our 10-year Rolling Strategic Plan aims to grow our collections consistently, driving a projected annual increase of 3%, which addresses our liquidity. We are committed to operational efficiencies that will strengthen our balance sheet and lay a solid foundation for the future.

### Flagship Projects and Sustainability

Our investment in major flagship projects continues to define our operational mandate. As we progress with the Kafue Gorge Lower project and upgrade smaller hydropower plants, our commitment to sustainable electricity access remains steadfast. ZESCO also recognizes the importance of rehabilitating existing infrastructure, enhancing reliability, and improving service provision.

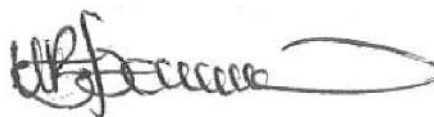
### Human Resources and Organizational Culture

2021 a year that was redrawn by COVID, has been transformative for our organizational culture, with increased emphasis on remote working arrangements that have fostered flexibility while ensuring safety for our employees. As of 2022, our workforce remains robust and dedicated, bolstering our mission through active engagement and innovative thinking.

### Conclusion

In summary, the road ahead is lined with challenges, but our vision remains clear. The implementation of our strategies, coupled with the support of our stakeholders, will enable ZESCO to emerge stronger. Our journey towards sustainable growth must be collective. I extend my gratitude to the Board, our devoted employees, and our valued stakeholders for your continued support.

Together, we will navigate these waters and strive tirelessly to illuminate the future of ZESCO and Zambia.



**Eng. Victor B Mapani**  
Managing Director

# Chief Finance Officer's Statement

## Key Highlights

..."The optimism of the Corporate Leadership team and staff is that ZESCO's financial and operational performance will be transformed by 2032..."

- Resolution of protracted mining tariff disputes through a consent judgment
- Advanced in completion of the fifth unit at KGL to increase generation capacity to 750 MW.
- Poor financial performance due to the following:
  - 7% reduction in turnover mainly due to reduction in mining sales on account of adjustments on resolution of disputed tariffs with some mining customers.
  - Accumulation of mining receivables due to delayed settlement of disputed tariffs resulting in bad debts provisions which eroded profitability and cashflow.
  - The high average cost of power purchases from Independent Power Producers (IPPs) exceeds the average selling price thereby considerably narrowing the Gross Profit margin.
- 8% depreciation of the local currency against the USD resulting in exchange losses on foreign-denominated liabilities and finance obligations.

- High maintenance costs on aged critical infrastructure.

## Performance Overview

### Revenues

The Group recorded a 7% reduction in turnover from K22 billion to K20.5 billion mainly on account of reduced revenues from mining customers induced by disputed tariffs.

### Operating Expenses and Finance Costs

Operating expenses increased in 2022 compared to 2021 mainly due to the K6 billion exchange losses against exchange gains of K9 billion in 2021. Further, impairment losses for trade receivables also recorded an increase on account of mining, exports, and Government trade receivables. The loss in the year was compounded by the finance costs on loans; 89% rise to K1.8 billion.

Some initiatives employed by the Corporate Leadership Team in enhancing financial performance included tariff renegotiations with most of the Independent Power Producers (IPPs) and cost control measures on administrative expenses with a 31% reduction. These included fleet management, staff optimisation, travel, and hotel accommodation.

## Summary of Profit

For the Year Ended 31 December 2022

	Group		Company		Contribution	
	2022	2021	2022	2021	2022	2021
	K' million	K' million	K' million	K' million	%	%
<b>REVENUE</b>	20,549	22,002	20,445	18,477	99%	84%
Cost of Sales	(8,890)	(9,138)	(11,908)	(10,175)	134%	111%
<b>GROSS PROFIT</b>	11,659	12,864	8,537	8,301	73%	65%
Other Operating Income	459	811	457	848	100%	104%
Other Losses/Gains	(5,959)	8,746	(2,537)	(9,346)	43%	-107%
Marketing Expenses	(13)	(9)	(13)	(13)	98%	145%
Administration Expenses	(3,427)	(4,971)	(4,674)	(9,422)	136%	190%
Other Expenses	(2,265)	(5,729)	(2,228)	(4,468)	98%	78%
Finance Costs	(1,825)	(964)	(915)	(741)	50%	77%
Share of Profit of Associates	7	(26)	-	-	0%	0%
Share of Profit of a Joint Venture	6	(26)	-	-	0%	0%
<b>(LOSS) PROFIT BEFORE TAX</b>	(1,358)	10,698	(1,372)	(14,841)	101%	-139%
Income Tax Credit	(26)	(254)	(34)	(754)	132%	297%
<b>LOSS FOR THE YEAR</b>	(1,384)	10,444	(1,406)	(15,595)	102%	-149%

## Revenues

Revenues declined by 7%, from K22 billion in 2021 to K20.5 billion in 2022. This reduction was mainly attributable to the rebilling of certain mining customers following the resolution of tariff disputes, which was compounded by reduced energy uptake from key mining operations, particularly Kansanshi Mine.

However, export sales increased by 16% mainly due to an additional 80 MW sold to NamPower that commenced in the second quarter of the year.



Revenue by Category	2022	2021	2020	+/-	
	K' million	K' million	K' million	K' million	%
Mining	9,242	11,839	10,963	(2,598)	-22
Residential	4,746	4,090	2,440	655	16
Industrial and Agricultural	2,898	2,854	2,328	43	2
Exports	2,812	2,428	2,169	384	16
Commercial	852	686	577	167	24
IP Connectivity	-	105	-	(105)	-100
<b>Total</b>	<b>20,549</b>	<b>22,002</b>	<b>18,477</b>	<b>(1,453)</b>	<b>-7</b>

### Cost of Sales

Cost of Sales decreased by K0.3 billion, representing a 3% reduction compared to 2021. This was largely driven by lower power imports, reduced local wheeling charges, and lower maintenance costs, with local wheeling alone accounting for 324% of the overall reduction. No export wheeling charges were incurred during the year. However, as a share of revenue, Cost of Sales was slightly higher at ~43% in 2022, compared to ~41% in 2021, reflecting a 5% adverse variance on local electricity purchases.

K' million	2022	2021	+/-	%
Local Purchases	6,056	5,793	262	5%
Direct labour Costs	1,122	1,017	105	10%
Maintenance Costs	900	961	(61)	-6%
Power Imports	27	32	(5)	-15%
Generation Water Usage Costs	569	317	252	80%
Local Wheeling Charges	217	1,018	(802)	-79%
Export Wheeling Charges	-	-	-	0%
<b>Total</b>	<b>8,890</b>	<b>9,138</b>	<b>(247)</b>	<b>-2.7%</b>

### Gross Profit Margin

The Gross Profit Margin remained relatively stable at 57%, a net result of the tradeoff between the 7% and 3% decrease in turnover and cost of sales respectively.

### Operating Expenses and Profitability

Operating Expenses during the year were relatively lower than the previous year by 36% due to reduced provisions for Bad Debts, Other Expenses, and Administrative Expenses. However, an operating loss was recorded due to the exchange loss recorded for the year as the Kwacha depreciated by 8% closing at K18.064/USD. The operating loss is a 113% reduction from the previous year's operating profit. Further, there were marginal gains as the group recorded a share of Profits in Associates and Joint Ventures compared to Losses in 2021.

Chart 1: Key Financial Elements

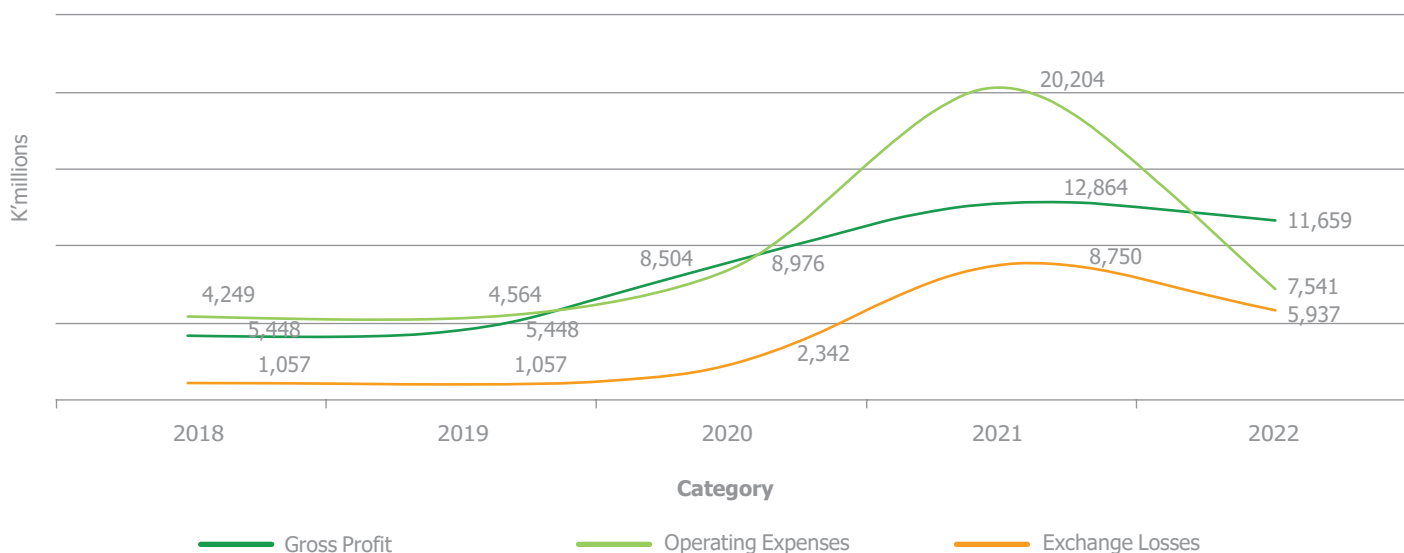
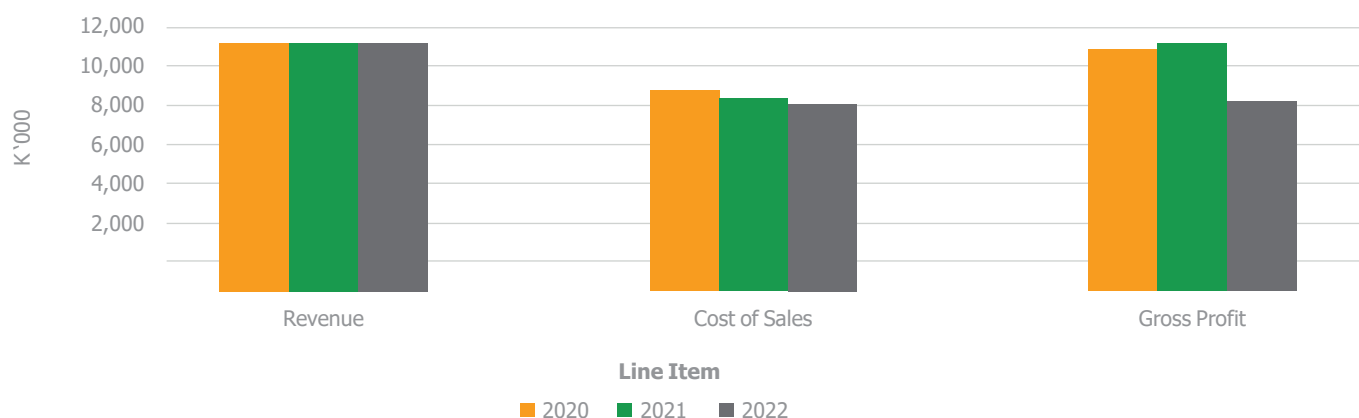


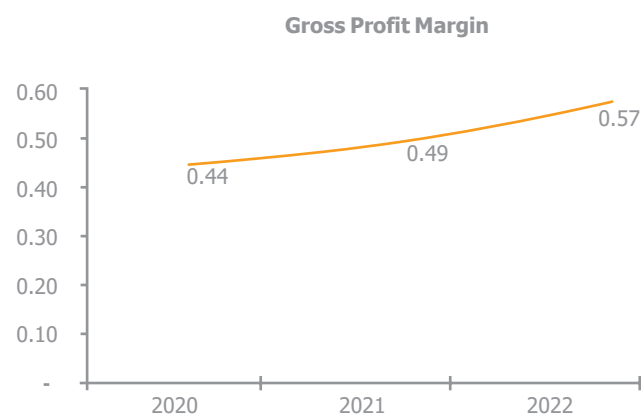
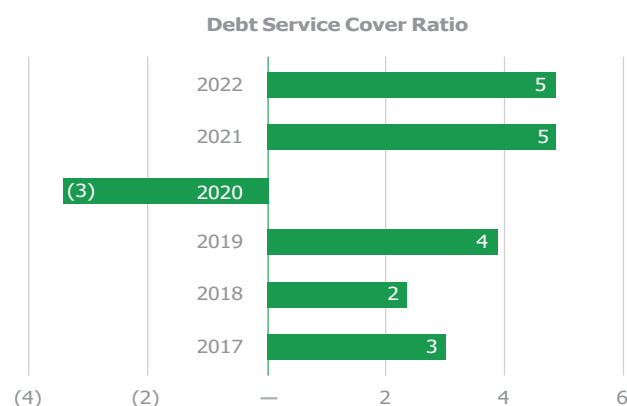
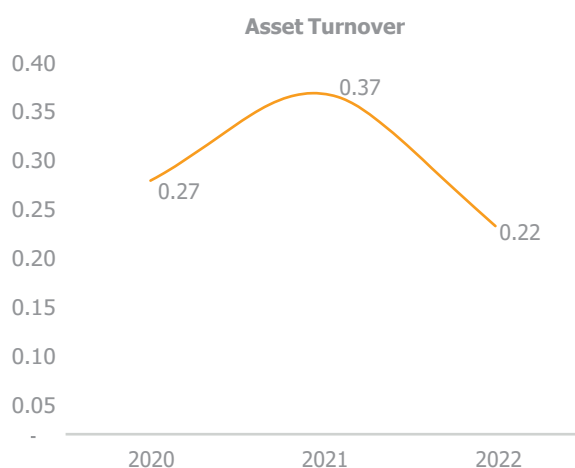
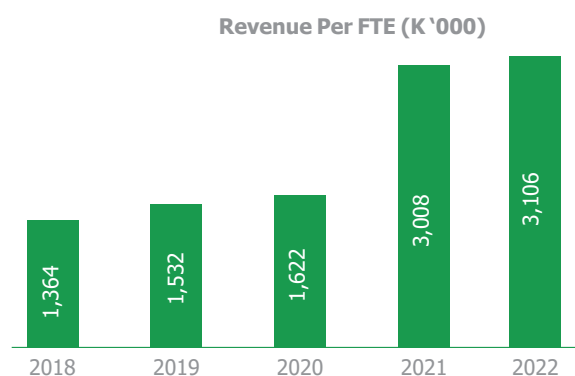
Chart 2: Gross Profit



Earnings Before Interest, Depreciation, tax and amortization (EBIDTA) for the year improved by 89% while the EBIDTA Margin also increased by 22% mainly on account of increases recorded in the Finance Costs and the Depreciation and Amortization Expense. This was further compounded by the exchange loss of K5.9 billion compared to exchange gains of K8.8 billion posted in 2021.

	K' million	K' million	K' million
EBITDA Margin	2022	2021	2020
Loss/Profit Before Tax	(1,348)	10,698	(16,702)
Add Back:			
Finance Costs	1,825	964	795
Depreciation and Amortisation Expense	2,662	1,985	1,957
Amortisation of Capital Grants and Contributions	(214)	(197)	(187)
Exchange Gains/ (Losses)	5,937	(8,750)	11,371
<b>EBITDA</b>	<b>8,862</b>	<b>4,700</b>	<b>(2,765)</b>
<b>EBITDA Margin</b>	<b>43%</b>	<b>21%</b>	<b>-15%</b>

## Group Financial Overview

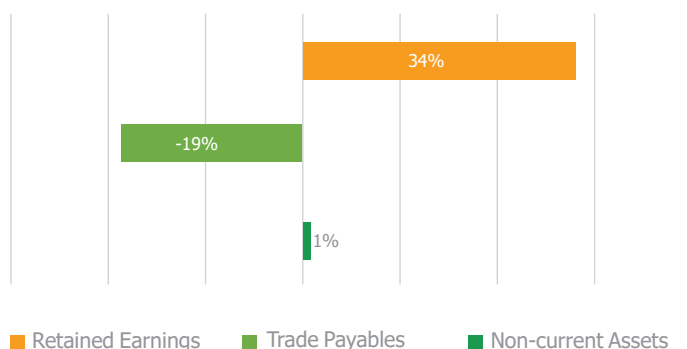




## Cash flow, Net Debt and Balance Sheet

The group recorded a 151% improvement in the net increase of cash and cash equivalents mainly due to the increase in trade and other payables and the adjustment for the impairment loss recognized on trade receivables, while the net cash generated from operating activities increased by over 120% over the two years to K17.2 billion on account of movements in trade receivables, trade payables, deferred liabilities and amounts due to related parties.

**Chart 3: Movements (2020 - 2022)**



The group's Net Debt increased by 57% due to foreign denominated obligations and the continued depreciation of the Kwacha over the period. Additional debt was contracted during the year to support the acquisition of materials for the dismantling of new connections backlog and support the completion of Kafue Gorge Lower.

The cash and cash equivalents on the other hand increased by 66% compared to 42% and 77% increments in Long and short-term liabilities respectively. The Group's Retained Earnings remained in the negative range and has seen a 34% positive movement from 2020. Trade Payables on the other hand have seen a favorable movement declining by 19% over the same period while the Non-Current Assets have increased by 1% or K0.8 billion.

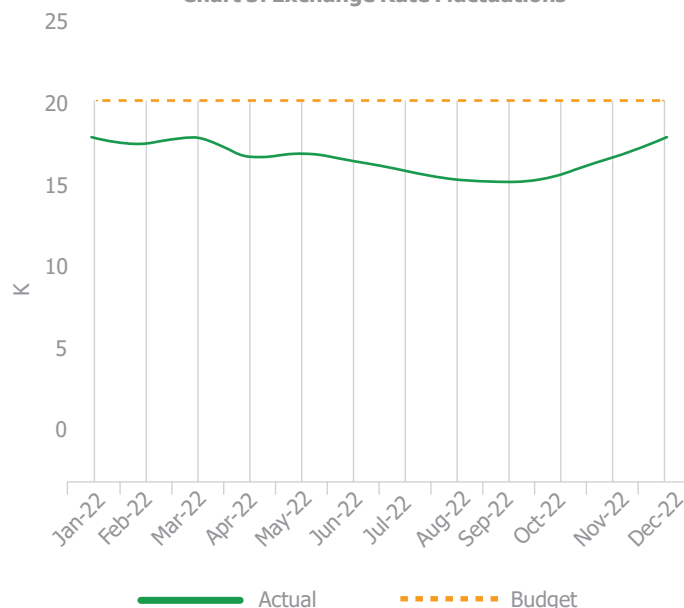
**Chart 4: Net debt**



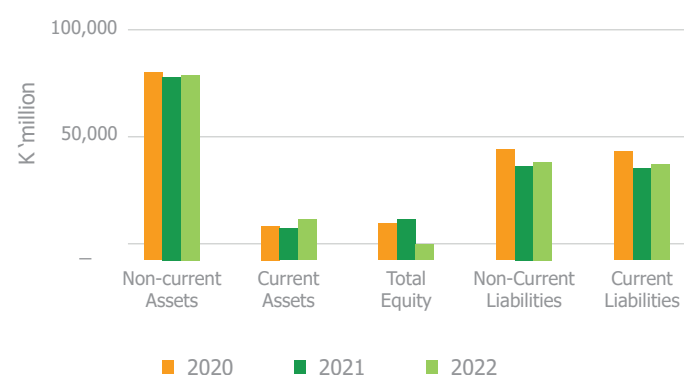
Current Liabilities increased by 5% from K39 billion (2021) to K41 billion (2022). The increase is attributed to the accumulation of trade payables on Independent Power Purchases which accounted for over 80% of the current liabilities.

Non-current assets on the other hand increased by 2% while Net Assets reduced by 10% to K12.3 billion mainly on account of the negative retained earnings for the year.

**Chart 5: Exchange Rate Fluctuations**



**Chart 6: Assets and Liabilities**



## The ZESCO Ten Year Rolling Strategy

The first quarter of 2022 saw the Corporate Leadership Team implement a Ten-Year Rolling Strategy with the focus being customer satisfaction, financial sustainability, expanded infrastructure, effective maintenance, and optimized human capital.

To restore Financial Sustainability, the strategy targets to address the major financial challenges as follows:

### Unsustainable levels of Debt

The amounts owed especially to IPPs have adversely impacted ZESCO's financial performance and resulted into the erosion of solvency ratios. The Strategy intends to restructure some loans and amounts payable to IPPs thereby freeing up cashflows and relieving stress on the overburdened Balance Sheet. Further, some On-Lent Loans from the Government are marked for conversion into Equity to ease our cash outflows.

### High amounts of uncollectible Mining and Government Receivables

The high level of uncollectible debt from some of the Mining Customers and the Government institutions has adversely impacted ZESCO through enormous impairments which have continually eroded profitability and liquidity.

Engagements are underway with most of the mining customers to resolve outstanding debt arising from disputed tariffs as a way of avoiding lengthy litigation processes. In addition, engagements with the Government through the Ministry of Finance are underway for debt swaps.

Unsustainable CAPEX

The approach to future investments has been streamlined to ensure that projects are appraised for financial, operational, environmental, and technical viability before commencement. Projects will be required to meet the minimum rate of return and all non-critical projects deferred.

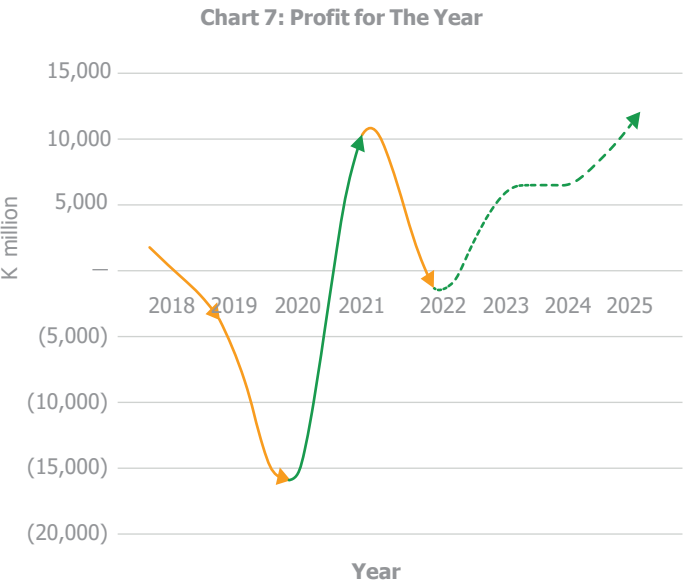
Non-Cost Reflective Retail Electricity Tariffs and Connection Fees

ZESCO's poor financial performance has also been compounded by the retail tariffs, which are not cost reflective. The average cost of power purchases is USD 0.09/kWh which is far above the average retail tariff of USD 0.03/kWh. The deficit therefore led to an accumulation of debt to the IPs and thereby eroding the liquidity of the corporation and solvency ratios.

Similarly, the average standard connection cost for thirty meters (30m) per retail customer of K4,700 is far higher than the average connection fees of K2,875 and was last revised in 2005. To this end, ZESCO has continued to engage the Regulator (ERB) with a view to having the connection fees revised regularly. Further, ZESCO has applied to the ERB for multi-year tariff migration which considers relevant macro-economic factors.

Other Operational Inefficiencies

The cost of some operational inefficiencies has also contributed to the worsened financial performance, and the strategy is intent on making operations efficient and effective. These include the huge cost of operating the ZESCO fleet, travel costs etc. Several measures have since been implemented to curtail these costs such as the suspension of travel, withdrawal of person to holder vehicles, curtailing of misuse of corporation fleet and embracing the use of technologies such as virtual interactions to minimize costs.



Outlook

The poor financial performance in 2022 reinforces the need for the success of all the initiatives in the ten-year rolling strategy. The optimism of the Corporate Leadership team and staff is that ZESCO's financial and operational performance will be transformed by 2032. The implementation of the strategy requires a combined effort by all stakeholders to guarantee success thereby securing the financial sustainability of the organization.

Our View on Taxation

ZESCO and its subsidiaries, recognize the importance of fulfilling their tax obligations as a vital aspect of being a responsible and law-abiding corporate citizen. By meeting our tax obligations, we demonstrate our commitment to the well-being of the communities in which we operate.

The Board of Directors is ultimately responsible for ensuring that sound tax management and policies are put into place. The responsibility for handling and reporting on tax-related matters rests with the Director of Investments and Finance.

Our Approach

Ensuring tax compliance involves accurately preparing and submitting tax returns, paying taxes in a timely manner, and treating all transactions correctly from a tax perspective.

We are committed to working with Zambia Revenue Authority (ZRA) in a collaborative, transparent and compliant manner. This includes engaging ZRA on interpretation of tax law to avoid being at variance with the law. Furthermore, the corporation collects outstanding taxes on behalf of ZRA from suppliers and contractors associated with us and ensure tax compliance through regular checks of tax clearance.

The company takes it with the seriousness it deserves in frequent tax seminars, workshops and trainings to employees involved in tax matters to keep abreast with the evolving tax regulations, which helps with both compliance and accurate reporting.

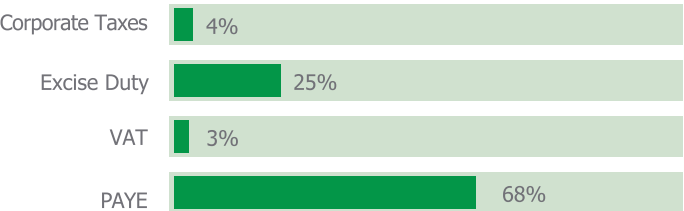
The business has gone a step further by engaging a tax expert and specialist in transfer pricing from one of the big four firms in the world, to advise ZESCO and its subsidiaries.

Tax audits are done on a regular basis and as a corporation, we approach these audits with the seriousness they deserve, and audits are always carried out successful.

If an employee is discovered to be in violation of tax laws, the corporation will take disciplinary action against them.

Tax Paid

A total of K1.13 billion was paid in taxes as shown below.



Corporate Taxes	K42.99m
Excise Duty	K288.02m
VAT	K31.69m
PAYE	K767.57m
Total	K1,130.28m





# Corporate Governance

- Ownership
- Board Composition
- Corporate Leadership Team
- Change of Corporate Leadership Team;
- Change in Sub-Committee of the Board;

## Corporate Governance Report

### The Year in Review

On 12 August 2021, Zambia held its general elections, resulting in the elections of His Excellency President Hakainde Hichilema as the 7th Republican President.

This change of Government brought about some modifications in Corporate Governance. As a result, the Managing Director and the Director Investment & Finance will no longer be members of the Audit & Risk and Finance & Investment Committees.

Moreover, Executive Directors will no longer be involved in any of the Board Sub-Committees. However, Directors may be invited to attend Sub-committee meetings as necessary. The Managing Director however, will be a member of all Committees except the Audit and Risk Committee. Further, the Company has made amendments to its Articles of Association during the year to align with IDC Group's Articles.

### Corporate Governance and Best Practices

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.

- The Board Charter, under Section 14 provides that the Board subscribe and promote the principles of good Corporate Governance as pronounced by adopted codes from time to time.
- The Board is mandated to ensure that the Directors, Management and staff individually and severally subscribe to and implement adopted principles of Corporate Governance and best practice and to achieve this, the Board ensured that ZESCO's affairs are administered in confirmatory with the law and with adopted codes of Corporate Governance.

That a culture of Fairness, Transparency, Responsibility and Accountability is promoted throughout ZESCO's activities and personnel;

- All Board Directors are periodically familiarised with, understand and subscribe to adopted principles of Corporate Governance;
- ZESCO adequately discloses its Corporate Governance practices in its Annual Reports; and
- The organisation structure of ZESCO reflects the requirements of Corporate Governance principles.

### Board Composition

The Non-Executive Directors (NED) are appointed from diverse professional backgrounds. The Managing Director is the only member of the Executive Directors (ED) that sits on the Board.

The Directors who held office during the year were:

- |                                 |                       |
|---------------------------------|-----------------------|
| • <b>Mr. Vickson Ncube</b>      | <b>Board Chairman</b> |
| • <b>Ms. Edna Mwala Mudenda</b> | <b>Member</b>         |
| • <b>Ms. Chikonjiwe Mumba</b>   | <b>Member</b>         |
| • <b>Dr. Jolly Kamwanga</b>     | <b>Member</b>         |
| • <b>Eng. Charles Kaisala</b>   | <b>Member</b>         |
| • <b>Mr. Emmanuel Gardner</b>   | <b>Member, and</b>    |
| • <b>Eng. Victor B. Mapani</b>  | <b>Member.</b>        |

### Board Activities

As part of the induction program the Board visited some key installations of the Corporation, amongst them, Victoria Falls Power Station, Kariba North Bank Power Stations and Kafue Gorge Power Stations. Site visitations will continue in 2022.

### Board Performance and Evaluation

As per the ZESCO Board Charter provides for the Board to annually assess its performance and the performance of each of its Committees against the terms of Performance Agreement signed with Stakeholders as well as against its Board Charter or terms of reference of the Committees.



The method of evaluation to be used shall be decided upon by the Board and shall include self-assessment, peer evaluation or an evaluation by an independent qualified consultant.

The purpose of the evaluation shall be to determine whether the Board or Committee has adequately discharged its responsibilities, the adequacy of Board or Committee operations and decision-making processes and the overall effectiveness of the Board and its Committees.

Upon completion of the evaluation exercise corrective measures shall be recommended to improve the individual performance of each Board Member, including further specified training, where necessary.

### Key Board Decisions

The Board at its 176th Ordinary meeting approved the following the request by Management to secure a loan of USD58 Million from commercial banks to finance the dismantling the backlog of 67,000 customers as at 31st December 2021.

Copperbelt Energy Corporation Renewal of BSA: an initial agreement was reached for Bulk Supply of Power between CEC and ZESCO, and a new tariff was agreed, with tenure of 13 years instead of 25 years.

The Board at its third special meeting of 2022 resolved to approve the request by Management to purchase the Mukuba Pension House at an amount of **K158, 455, 000**.

### Board Committee

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 Corporate Leadership Team (CLT) does not mitigate or discharge the Board and its members of their duties and responsibilities.

The Board Committees in 2022 were as follows:

- Audit and Risk Committee;
- Finance and Investment Committee;
- Technical Committee;
- Human Capital and Development Committee; and
- Legal and Administration Committee.

Each Committee has formal terms of reference approved by the Board. The Chairpersons of the Committees report back to the Board on at least a quarterly basis on a general principle of transparency and full disclosure.

Board Profiles



Mr. Vickson Ncube

Professional Chartered Accountant with a strong business acumen and service ethic, thriving in highly dynamic and changing environments having served as CEO in various organizations in both public and private sector.



Eng. Charles Kaisala

Registered engineer with vast experience in power systems having worked in the industry for over 30 years.



Ms. Edinah Mwaala Mudenda

Banking and Finance specialist having held various senior management positions at the Central Bank of Zambia.



Mr. Emmanuel Gardner

Held senior management roles in Barlow world and Bell equipment with extensive Board membership experience



Ms. Chikonjiwe Mumba

Seasoned business Entrepreneur with experience in managing various businesses and has extensive work experience at managerial level.



Eng. Victor B. Mapani

Seasoned Registered Engineer with vast experience in the power sector having served in various senior management positions at ZESCO, Rural Electrification Authority, Botswana Power Corporation among others.



Dr. Jolly K. Kamwanga

Senior research consultant with vast experience ranging from Monitoring and Evaluation, Public finance and human capital development amongst other skills. He has worked with development organizations such as UNAIDS, UNDP, INESOR and GiZ.

## Corporate Leadership Team

### Organisation Changes

The Board approved the change in organization structure aimed at improving service delivery. These changes resulted in the formation of new directorates such as Planning and Projects and merging of Distribution and Customer Services.

Corporate Leadership Team (CLT) is charged with running of the Company's day to day operations. The CLT is led by the Managing Director who is supported by the following Directorates:

- **Power Generation;**
- **Transmission, Operations and Power Trade;**
- **Distribution and Customer Services;**
- **Planning and Projects;**
- **Human Capital and Development;**
- **Corporate Support Services;**
- **Investment and Finance; and**
- **Legal Services and Company Secretary.**

### CLT Profiles



Director Power Generation. Prior to this role, Wesley served as Project Director for Kafue Gorge Lower, a subsidiary of ZESCO.

**Eng. Wesley Lwiindi**  
Director Power Generation



Director Human Capital Development. Maxwell is a seasoned Human Resource practitioner with experience at senior management level in ZESCO and in various financial institutions.

**Mr. Maxwell Saya**  
Director Human Capital Development



Director of Transmission Operations and Trade. His career includes senior positions in Generation and Transmission at ZESCO, and immediately prior to this role he was Chief Executive Officer of Lunsemfwa Hydro Power Company.

**Eng. Justin C Loongo**  
Director Transmission, Operations and Trade (TOT)



Director Corporate Support Services. Before this role, Matembo was Head Legal and Company Secretary at ECO Bank Zambia, having earlier served as Legal Services Manager at ZESCO.

**Ms. Matembo Lisimba**  
Director Corporate Support Services



Director Planning and Projects. Gyavira brings extensive leadership experience from senior management roles at Botswana Power Corporation and ZESCO.

**Eng. Gyavira M Bwalya**  
Director Planning and Projects



Director Investment and Finance. Emmanuel brings strong financial leadership, having worked at senior management level with Standard Chartered Bank prior to his appointment at ZESCO

**Mr. Emmanuel M. Banda**  
Director Investment and Finance



Director Distribution and Customer Services. Peter previously served as Divisional Manager for ZESCO's Northern Division under the Distribution Directorate, and later worked as a Consultant before taking up his current role.

**Eng. Peter Chamfya**  
Director Distribution and Customer Services



Director Legal and Company Secretary, McRobby has worked at Senior Management Level before being appointed in his current Portfolio.

**Mr. McRobby V. Chiwale**  
Director Legal and Company Secretary



# Building Blocks to Financial Sustainability

Under the 10-year Rolling plan, the corporation formulated Five (5) Strategic Objectives to enable it achieve its vision and mission as below:

- To achieve customer satisfaction, win customer confidence and loyalty;
- To be a financially sustainable organisation that balances the needs of its stakeholders;
- To expand its Generation, Transmission and Distribution systems guided by a clear Integrated Resource Plan;
- To enhance the maintenance programme for Generation, Transmission and Distribution systems; and
- To align human capital to achieve business objectives.

The Strategic Objectives are condensed into four strategic focus areas which are a must win for ZESCO:

## **a. Improve customer service delivery:**

There are several initiatives around this focus area, such as improving the:

- Customer application process;
- Connection of new customers;
- Customer service centres; and
- Faults management system to reduce faults resolution time, and; implement customer management systems with integrated analytical capabilities to measure customer experience.

## **b. Strengthening the core business:**

The following are some of the initiatives developed under this focus area:

- Increase generation capacity;
- Increase the transmission transfer capacity;
- Expand and reinforce the distribution network;
- Improve the System Average Interruption Duration Index (SAIDI);
- Improve System Average Interruption Frequency Index (SAIFI); and

### **Improve Customer Average Interruption Duration Index (CAIDI).**

## **c. Optimise human capital: the following are some of the initiatives developed under this focus area:**

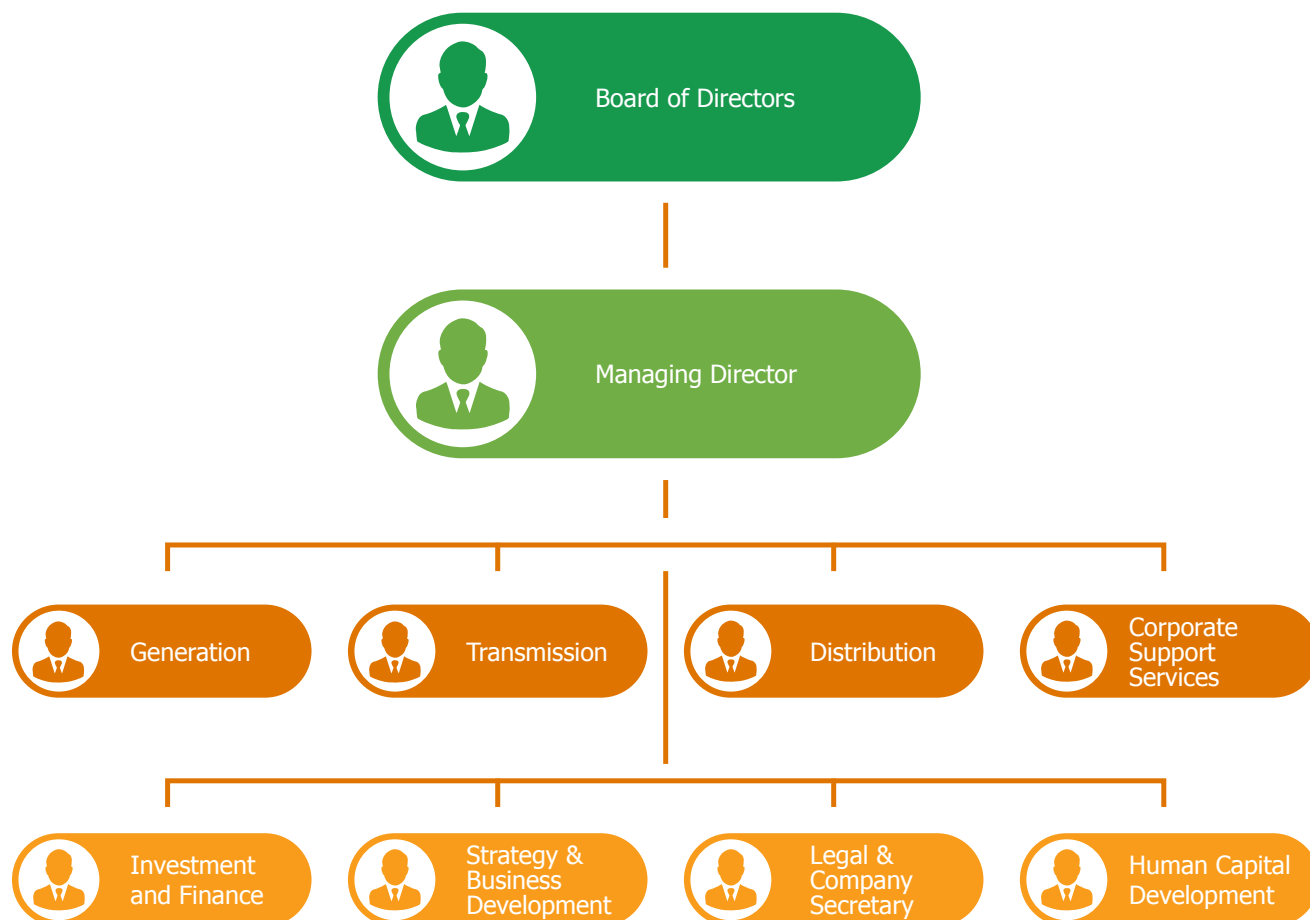
- Carry out a staff skills audit;
- Review organisation structure;
- Develop capacity building training programs;
- Develop a reward system for performance management;
- Implement the performance management system and develop individual score cards; and
- Enhance staff retention schemes.

## **d. Debt, Revenue, Cost and Working Capital management:**

This focus area will focus on sales growth, solvency, profitability and liquidity improvements.

## **Outlook**

The 10 year rolling Strategic Plan (the Plan) will drive the organisation from its current position to an envisaged future state. The new strategic direction aims at improving overall business performance for the Corporation, to steer it back into a viable national power utility focused on efficient service delivery.

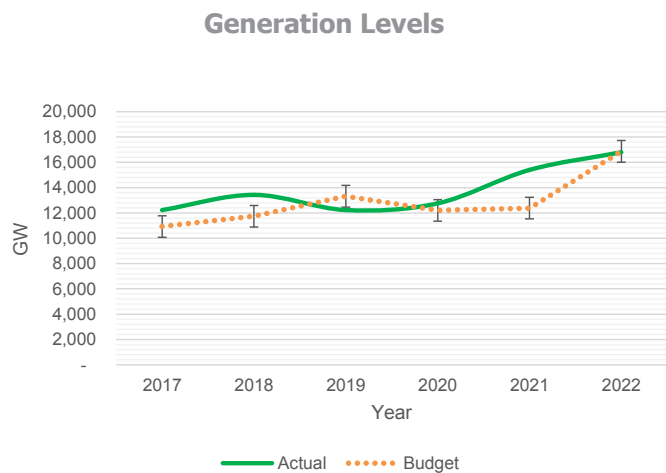
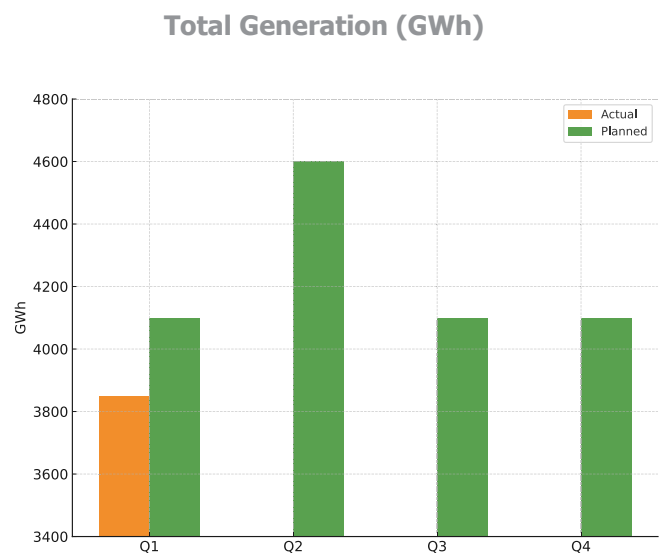


# Operational Sustainability

As a business, we employ numerous methods of evaluating whether we can maintain existing practices without risking potential resources. We understand Sustainable Operations to mean meeting present needs through our operations without compromising on the ability to meet future needs. We place great value on resources such as water, marine and the general ecology around our operating stations. Operating with minimal or no harm to the environment where we operate remains one of our major objectives.

## Generation System Performance

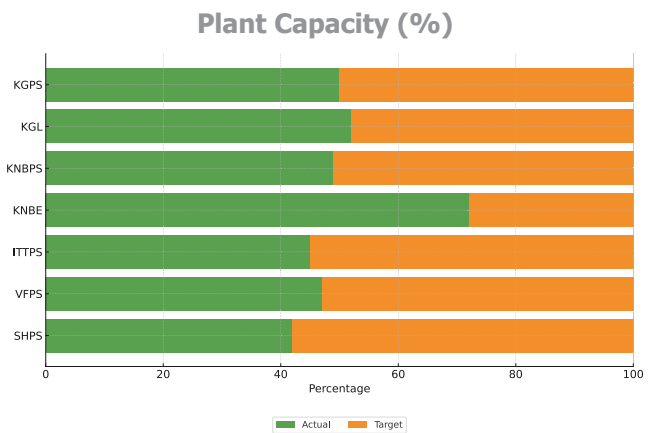
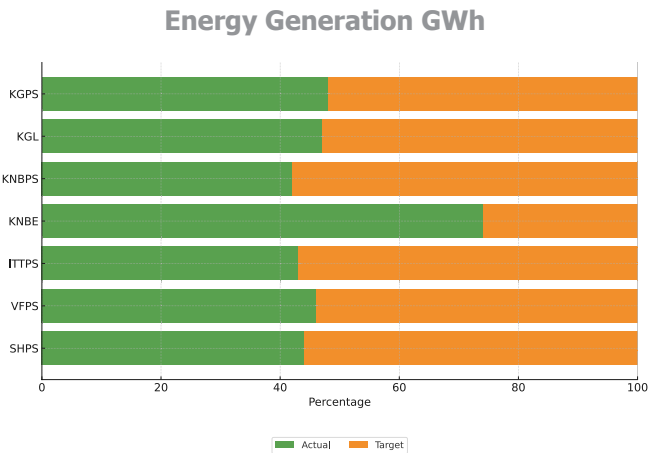
Generation performance for the year was favorable at a total of **16,789 GWh** generated from the Power Stations which was lower than the planned production **16,872GWh** by 1%.



Similarly, average availability of generating plant improved to 89%, better than the 85% the previous year, with an average Capacity Factor of 66% (2021: 69%). Water utilization at the Kariba North Bank Power Stations, exceeded the annual allocation from the Zambezi River Authority while there was adequate water for all-out power generation available at Victoria Falls power station and the Small Hydro power stations during the year.

## Maintenance Activities

During the year, all the power stations experienced periodic shutdowns to facilitate maintenance. The works conducted include routine annual and quarterly maintenance of auxiliary Plant.





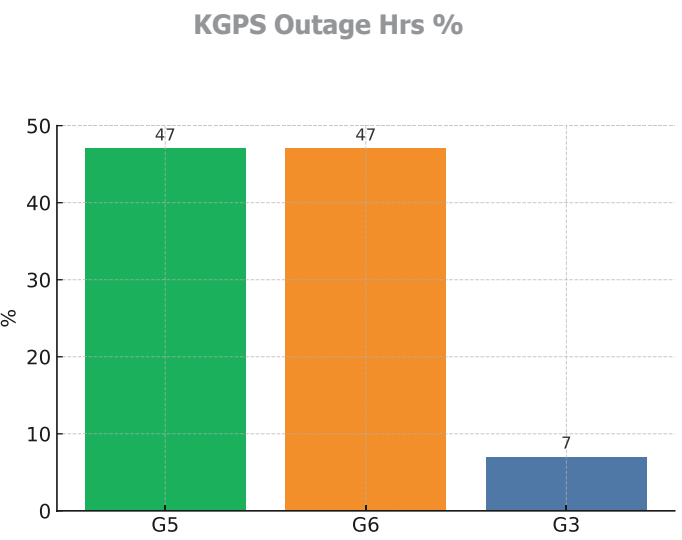
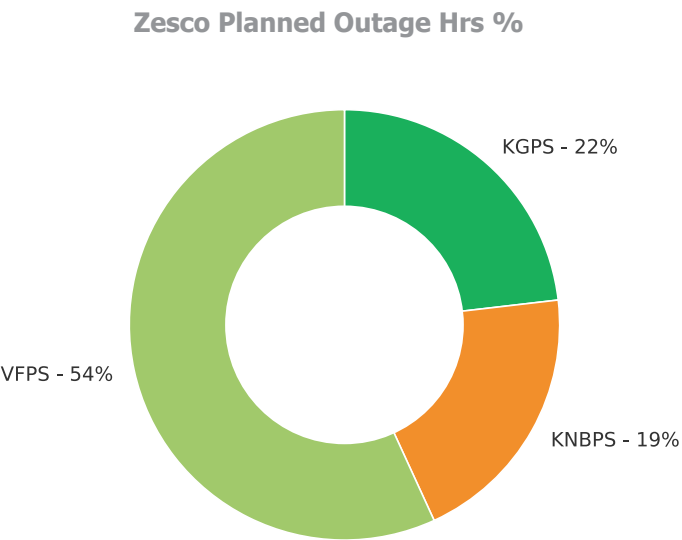
Only the Small Hydro Power Stations (SHPS) failed to exceed their targeted plant availability as only Shiwang’andu and Lunzua exceeded the targeted availability. This mainly due to disruptions to allow for maintenance works at most of the other small hydro stations.

### KEY

Kafue Gorge	KGPS
Kafue Gorge Lower	KGL
Kariba North	KNBPS
Kariba North Extension	KNBE
Itezhi Tezhi	ITTPS
Victoria Falls	VFPS
Lusiwasi	LHP
Small Hydros	SHP

## Planned Outages by Power Station

Planned outages are mainly effected to carry out among other things, scheduled maintenance, replacement and installation of parts, control system upgrades, facilitating desilting of water ways and allow for tests such as commissioning tests, reliability, inspection and guarantee tests. Below are the graphical representations of the planned outage hours in the major stations as a percentage of the total planned outage and by machines measured in hours.



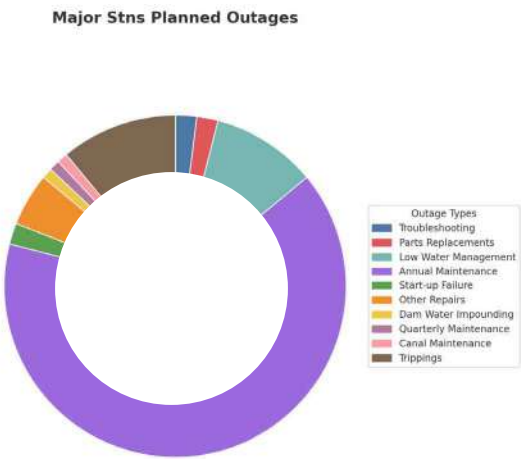
At Kafue Gorge Power Station machines G5 and G6 contributed equally to 93% of the planned outage hours while the remaining 7% was for G3. The planned outages were mainly to cater for annual maintenance and low water management. No unplanned outage hours were recorded at the station.

At the Kariba North Bank Complex 97% of the outages affected G1 while the remaining 3% was between G2 and G3 for mainly annual maintenance. Further, machines G5 and G6 equally shared the proportion of outage hours. 140 hours were lost due to unplanned outages.

At Itezhi tezhi Power Station close to 570 hours were lost with G1 accounting for 41% and the remaining being attributed to G2.

At Victoria Falls Power Station 60% of the outage hours were accumulated on A3 and these relate to a tripping during tests conducted as part of annual maintenance. The same machine accounted for 73% of the outage hours lost due to unplanned outages. This mainly for emergency bearings inspections and repairs.

At the small hydro power stations planned outages were mainly at Musonda, Chishimba and Shiwang’andu Power Stations.



## Transmission System Operational Performance

ZESCO’s transmission system consists of infrastructure used for the evacuation of electricity to bulk supply points that deliver power to large industrial and mining customers as well as ZESCO’s distribution system for subsequent supply to various domestic customers. It is also interconnected to the Southern African Power Pool (SAPP).

The asset base stood at over 10,000 km of High Voltage overhead transmission lines in the voltage class 66-330 kV and 147 substations with a combined transformation capacity of over 8,200 MVA.

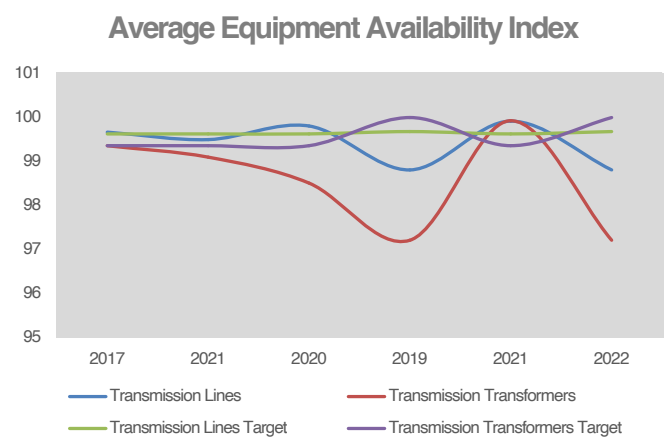
## System Stability and Security

The performance of the transmission system was generally stable for most of the year with intermittent outages resulting from internal and external system disturbances. A few equipment trip-outs were also experienced during the year.

The Average Equipment Availability Index (AEAI) for transmission lines was 99.5% a drop from 99.62 % the previous year whilst that for power transformers was 98.6%, also a drop from 99.33 %. The deviation was mainly as a result of scheduled annual maintenance for the transformers and lines which intensified in the last quarter.

The Grid did not experience any total blackout of the system during the period under review. Load management was also implemented to mitigate reduced generation due to low water levels, with an average deficit of 810MW.

The AEAI per quarter for both transmission lines as well as power transformers is as shown below:



## System Demand, Operations and Maintenance

The total power from the transmission grid was 15,259.60 GW a 2% increase over 2019. The maximum demand for the year was 1,977MW which occurred on 23 December 2020, recorded at 19:29 hours. The transmission losses recorded in the year stood at 795,494 MWh or 5 % which is below the ERB performance index threshold of 6 %.

The annual time-based maintenance of plant and equipment commenced during the second quarter of the year but had to be rescheduled due to the outbreak of COVID-19 global pandemic and the subsequent guidelines from the Ministry of Healthy on measures to contain the spread of the disease. Internally, business operations were streamlined with some employees being required to work on rotational basis. However, other maintenance activities of preventive and corrective nature were executed by specialized teams.

The performance of the protection, control and metering infrastructure was also satisfactory during the year under review. The National Control Center (NCC) was also functional and available.

During the year, scheduled maintenance of transmission plant and equipment was conducted with an average compliance of 96.7 % of the annual planned schedule. Other maintenance activities undertaken were of the preventive, corrective and condition-based type which are expected to improve power supply security and reliability.

Voltage Level/ Fault Type	Number of Faults			
	2022	2021	2020	2019
33kV	4,900	4793	3080	2857
11kV	20,055	24,453	13,089	11,772
0.4kV	44,389	19,085	20,096	16,908
Service Faults	314,963	186,215	344,154	448,147
Transformer Faults	900	1,373	848	970
HT Cable Faults	446	595	538	618
MV Faults	9,620	45,169	19,085	24,625

## Distribution System Performance

The system performance was negatively impacted by load management and none of the four performance indices were achieved.

## Vandalism

The operation of the Power System continued to be adversely impacted by vandalism. Our installations were targeted especially copper cables (both underground and overhead) and transformers (for diesel).

A total of 601 cases of vandalism were recorded in the year which resulted in losses of ZMW8.9 million and recoveries of ZMW1.651 million. To curb this vice, we have continued to carry out awareness and sensitization campaigns, enhance security operations and partner with the state police. A total of ZMW66.6million was invested in securing our installations and equipment during the year. The exercise is yielding results, and 99 arrests were made and 63 convictions during the year.

## Demand Side Initiatives

The corporation has continued with initiatives to promote energy efficiency, monitor power quality with a view to achieving ZS387 compliance requirements, deploy advanced metering infrastructure including smart meters, meter data management system (MDMS), and integrate back-end systems (BES) to MDMS on the distribution network.

## Diesel Generation Performance

Electricity supply to some remote districts continued to be supported by diesel power stations. The number of such stations has reduced to only three and two of these being supplemented by power imports from Malawi. The total number of customers supplied by Diesel at the end of the year stood at over 6,500. The ratio of sales relative to cost of running the stations was reduced during the year due to reduced sales (a drop of 60% while the operating costs increased by 22%).

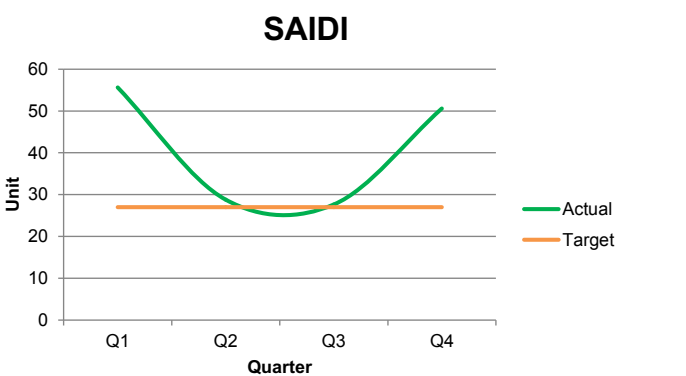
Diesel Generation Performance	2022	2021	2020	2019	2018
Generation (GWh)	2.40	1.51	3.07	5.910	5.831
Cost (K millions)	15.95	6.20	11.55	20.6	16.91
Sales (K millions)	5.7	5.37	3.3	1.2	3.0
Sales as a % of Cost	35.7	86.6	28.4	5.8	17.7

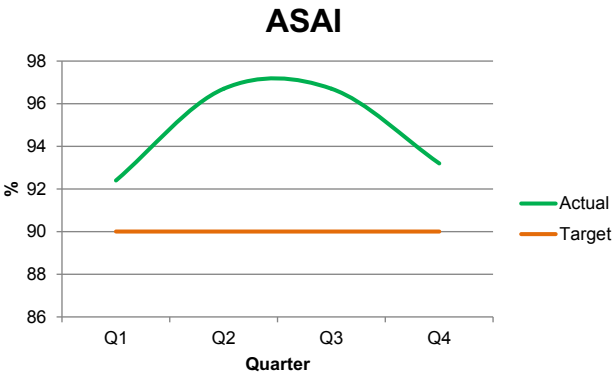
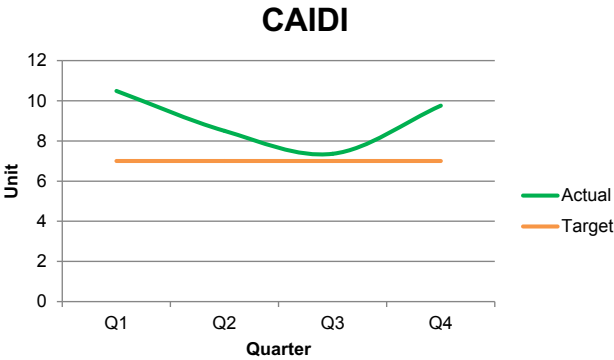
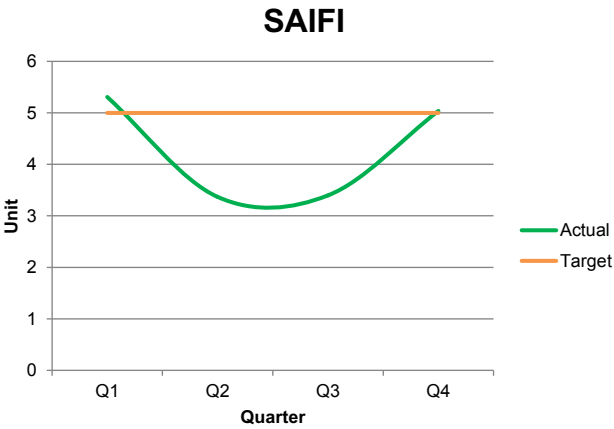
## Distribution System Reliability Indices

The targets set by the Regulator Energy Regulation Board (ERB) for system reliability in Distribution could not be achieved.

To improve reliability of supply, there is need to focus on solutions that would reduce the duration and frequency of supply interruptions.

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





## Major Internal Activities to Improve Distribution System Operations

Enhancements to the operational performance of the distribution system through maintenance works continued in the year. These involved rehabilitation of switchgear and transformers, and network reinforcement and expansion.

Some of the notable works carried out to improve performance of the system and extend the active life of equipment include the following:

Location	Objective	Details
The Lusaka Transmission & Distribution Rehabilitation Project (LTDRP)	Lusaka Area whose overall objective is to increase capacity and improve reliability of the electricity transmission and distribution system	includes upgrading of the existing 88kV to 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.
Bauleni Substation	Refurbishment of equipment	The replacement of 11kV switchgear
Itawa Water Works Substation	Refurbishment of equipment	replacement of switchgear and control panels in progress.
Converter 66/11 kV substation	Expansion of capacity	Through the introduction of a 33/11kV 10MVA Transformer

We have also continued building capacity to maintain distribution transformers internally at the Lusaka and Ndola Transformer Workshops thereby making maintenance cheaper and reducing transformer faults lead time. A total of 428 distribution transformers were received at the Lusaka and Ndola Transformer Workshops compared to 416 received in 2021.302 distribution and power transformers were repaired compared to 244 the previous year. 311 Transformers were tested for external clients in the period under review compared to 311 in 2021.





# Environmental Sustainability

ZESCO has a pivotal role to play in driving meaningful and constructive changes beyond financial gains as its operations have a social and environmental impact. As such the company prioritizes its social and environmental responsibility alongside economic and business success. Through collaborative efforts with communities and regulators, the company has leveraged its influence to drive positive change so as to leave a positive and lasting impact with a commitment to creating a sustainable and inclusive future for all. ZESCO, through its Environmental Sustainability Department (ESD), undertook the following during the period under review;

## Environmental efforts

### GENERATION PROJECTS

#### WEST LUNGA 44MW II HYDRO POWER PROJECT IN MWINILUNGA DISTRICT

The environmental screening for the Environmental and Social Impact Assessment (ESIA) study revealed the ecological sensitivity of the project site to affect the forest reserve and a Game Management Area under the charge of the Trident Foundation. This meant that the scope of the ESIA study had to include a detailed specialised study on biodiversity in the project area.

#### REHABILITATION AND UPRATING OF CHISHIMBA FALLS SMALL HYDROPOWER STATION IN KASAMA DISTRICT (6MW TO 15MW)

A biomass assessment was conducted at the power station site to determine vegetation that will be cleared to pave way for project works. This exercise was conducted by the Kasama Forestry Department and National Heritage Conservation Commission (NHCC). The preparation of the Site Restoration Plan for the project site was undertaken.

An afforestation exercise was conducted along the banks of the Luombe River covering 2.6 hectares of land affected by anthropogenic activities using seedlings of indigenous trees.

#### KALUNGWISHI 244MW HYDROPOWER SCHEME PROJECT

A familiarisation tour to the site was undertaken with the Minister of Energy, Honourable Peter Kapala to establish if there were any construction works done on the project as claimed by prospective developers (Lunzua Power Authority).

#### PROPOSED EXTENSION OF LOT 306/M MUSONDA FALLS HYDROPOWER SCHEME

Land acquisition for the proposed extension of Lot 306/M at Musonda Falls Hydropower Scheme was carried out in Mwense District. ZESCO owns and maintains infrastructure (Office Blocks) on the aforementioned land which is located in Chief Mulundu's area who consented to the conveyance of four hectares of his customary land to state land to enable ZESCO acquire title. Property Department was engaged to facilitate the land conveyancing process.





### **LUANO - KANSANSHI 330kV DOUBLE CIRCUIT TRANSMISSION PROJECT**

Stakeholder engagement to pave way for geotechnical survey and wayleave acquisition was undertaken. Stakeholders engaged included Ministry of Lands, Sub-chiefs Mbonge and Kanshinshi of Mulonga Chiefdom, and Project Affected Persons (PAPs) on the line route. The geotechnical survey was conducted, and way leave acquisition process was initiated. A socio-economic assessment was conducted to ascertain the impact of loss of properties and livelihoods. It was established that the Seventy-Six (76) households would be affected by the project.

### **SOLWEZI - KOLWEZI 330kV INTERCONNECTOR TRANSMISSION PROJECT**

Zambia Environmental Management Agency (ZEMA) inspected the project site as part of the ESIA process, prior to approval of the Environmental Impact Statement (EIS) for the Project and subsequently granted project approval.

### **PENSULO - MANSA 330kV TRANSMISSION LINE PROJECT**

Geotechnical investigations were carried out by the Contractor (China Railway First Group) on the planned transmission line route.

### **SESHEKE - SHANGO'MBO - MONGU 330kV TRANSMISSION LINE PROJECT**

ZEMA approved the Scoping Report and Terms of Reference (ToRs) for the ESIA study of the project. The draft Resettlement and Compensation Action Plan (RCAP), Grievance Redress Mechanism (GRM), and ToRs for the Biodiversity Assessment were prepared as part of the Project ESIA process

### **ZAMBIA - MOZAMBIQUE 400kV INTERCONNECTOR PROJECT**

The second draft ESIA and Resettlement Policy Framework (RPF) were submitted to ZEMA for approval and subsequently project approval was granted

### **REINFORCEMENT OF CENTRAL TRANSMISSION CORRIDOR 330kV PROJECT**

Geo-technical studies on the project were conducted by the Contractor (Geotech). Further to this, identification of PAPs along the entire route corridor was finalized. The study established that 85 households would be affected by the project.

### **ZIMBABWE-ZAMBIA-BOTSWANA-NAMIBIA (ZIZABONA) INTERCONNECTOR 400kV PROJECT**

Environmental and social screening was carried out on component A (Hwange -Zimbabwe to Mukuni -Zambia) for the proposed 400kV transmission line network which is approximately 115km. This was done to establish any changes and possible impacts on the initial planned line route. The exercise revealed that there are no new development in the planned line route, and there will be no major impacts by the project.



## Environmental efforts

Socio-economic assessments were conducted to ascertain the impact of loss of properties and livelihoods across all the projects engaged in 2022. ZESCO engaged professional property valuers for the identified PAPs, to carry out valuations of their affected structures, land, fruit trees and exotic trees of economic value to determine compensation entitlements. The cut-off date was considered as the last day of the census of affected people and properties. No structure or field established in the project- affected area after that date would be eligible for compensation. The cut-off date after which no settlers or developers are eligible for compensation, was publicized among potentially affected people.

Valuation rates used for affected land were “market values” based on evidence obtained during property inspection and surveys. Buildings and structures were valued based on the Replacement Cost Method. PAPs received cash compensation and financial management training was given.

## Project Affected Persons

Monitoring was done on projects undertaken to ensure that all PAPs previously paid had no further grievances. Inspection of the livelihoods of PAPs was conducted and PAPs that were identified to be vulnerable and in need of special compensation were assisted.

Public consultation, participation and development planning processes are an opportunity to engage, manage expectations, challenge misconceptions, disseminate accurate project information, and gather stakeholder opinions which are feedback to the project developer and other project specialists.

## Community Engagements

Courtesy calls were paid to respective Chiefs in locations where projects were being undertaken. On the Kalungwishi Hydropower Project sites, Chiefs Mushota, Mumporokoso, Mukupa Katandula and Kapema were engaged for the introduction of project consultant (Norconsult) and to garner their support. The Grievance Redress Mechanism (GRM) was rolled out and community engagement meetings were held in Mongu, Nalolo, Senanga, Sioma and Shangombo Districts for the Sesheke - Shango'mbo - Mongu 330kV Transmission Line project.

Stakeholder consultations were conducted to address how best to preserve a historical and cultural heritage Baobab tree that happened to be in the project wayleave under the Nambala - Kabalwa 33kV OHL Project.

## Monitoring

Throughout the year ESD monitored the projects being undertaken to ensure conformity and to check for nonconformity with standards. Contractors that were found to be non-conformant were taken to task and required to take remedial action to ensure conformity.

Environmental and social compliance monitoring was conducted for Distribution power lines (0.4kV, 11kV and 33kV) that are currently being constructed by various contractors in Northwestern, Copperbelt, Luapula, Muchinga and Northern provinces.





# Highlights From the Year's Activities

ESD participated at the 2022 World Environment Day which falls on 5th June, under the theme "Only One Earth" on invitation by the Ministry of Green Economy and Environment.

ESD took part in the Launch of the Tokyo Way Wayleave Clean-up Campaign on 10 November 2022. This followed ZESCO's partnership with the Lusaka City Council (LCC) in a pilot project to clean-up the wayleave along Tokyo Way Road that has been adversely affected by waste dumping.



ESD-S Staff during the match past



ESD-N Staff preparing for the match past



Head- Environment (center), launching the Clean-up

ESD participated in a workshop on Social Safeguards Integrated Resources Plan (IRP) organized by GIZ Zambia. The workshop was aimed at refining ToRs for formulation of a Social Inclusion Framework for projects.

# Stakeholder Engagement




We interact with various stakeholders every single day and understanding the interests of each stakeholder group ensures the success of business strategy. This process is aligned with our core values and guided by the Code of Ethics. We nurture constructive relationships to remain a responsible corporate citizen and operate the business sustainably. As we engage with stakeholders, we strive to operate ethically.

Our relationships to stakeholders are categorized into;

- Collaborate
- Involve
- Consult



The following analysis outlines stakeholder groups who have a substantive impact on our ability to create value. This analysis illustrates the stakeholder engagement process highlighting the need to work closely with them, the expected outcomes, engagement frequency and engagement method. Furthermore, we conducted internal assessment of the quality of our current approach to engaging with these stakeholder groups.

Government and Shareholders					
<div>  </div> <div> <b>Frequency and Engagement Methods</b> </div> <div> <p><b>Frequency</b></p> <p>Engagement is regular and ad hoc, depending on matters arising or company developments, industry-related changes and opportunities for dialogue specific forums like industry conferences and government-organised events.</p> <p>In person, virtual, direct, or indirect, at company level or through industry partners which lobby on behalf of the Electricity Supply Industry (ESI).</p> <p><b>Engagement Methods</b></p> <ul style="list-style-type: none"> <li>• By email, telephone and meetings</li> <li>• Annual reports, Interim and annual results presentations</li> <li>• Media Interviews</li> <li>• Website</li> <li>• Expo and Investor conferences</li> <li>• Infrastructure site visits and commissioning</li> <li>• Consultation</li> <li>• Participation in public fora</li> <li>• Industry consultative bodies</li> <li>• Partnering on various social programmes</li> <li>• Participation in parliamentary processes</li> </ul> </div>	<div> <b>Capital(s) contributed or Impacted</b> </div> <div>  </div> <table> <tr> <th>Expected Output and Outcome</th><th>What are their interests?</th></tr> <tr> <td> <p><b>Why should we work closely with these?</b></p> <ul style="list-style-type: none"> <li>• They determine legislation, business and regulatory environment in the sector</li> <li>• They are providers of capital and other resources</li> </ul> <p><b>Expected output and outcome</b></p> <ul style="list-style-type: none"> <li>• Buy-in/support into the Company's strategic objectives</li> <li>• No interference in day-to-day running of company affairs.</li> <li>• Government financial Guarantees</li> <li>• Support through policy enactment &amp; implementation new policy implementation</li> <li>• Be advocates/lobbyists for positive policy changesArms length relationship</li> </ul> </td><td> <ul style="list-style-type: none"> <li>• Organizational Strategy that is aligned to shareholder &amp; GRZ goals</li> <li>• Good Organizational Performance (KPIs)</li> <li>• Return on Investment (ROI)</li> <li>• Dividends</li> <li>• Institutional Governance</li> <li>• Improve access to electricity</li> <li>• Infrastructure development</li> <li>• Improvement of social wellbeing of citizens</li> <li>• Complying to rules &amp; regulations</li> <li>• Cost of services to citizens</li> <li>• Contribution to the tax base;</li> <li>• Impact and management of COVID-19</li> </ul> </td></tr> </table> <div> <div>  </div> <div> <b>Our response</b> </div> <div> <ul style="list-style-type: none"> <li>• We conducted facility tours to acquaint our partners with our operations and processes.</li> <li>• The government and shareholders were invited to participate at the commissioning of the Kafue Gorge Lower Hydro Power Station</li> </ul> </div> </div> <div> <div>  </div> <div> <b>Capital(s) contributed or Impacted</b> </div> <div> <p>Natural, Financial, Manufactured, Social and relationship, Human and intellectual</p> </div> <div> <div> <b>Value to stakeholder</b> </div> <div> <ul style="list-style-type: none"> <li>• Return on Investment (ROI)</li> </ul> </div> </div> </div>	Expected Output and Outcome	What are their interests?	<p><b>Why should we work closely with these?</b></p> <ul style="list-style-type: none"> <li>• They determine legislation, business and regulatory environment in the sector</li> <li>• They are providers of capital and other resources</li> </ul> <p><b>Expected output and outcome</b></p> <ul style="list-style-type: none"> <li>• Buy-in/support into the Company's strategic objectives</li> <li>• No interference in day-to-day running of company affairs.</li> <li>• Government financial Guarantees</li> <li>• Support through policy enactment &amp; implementation new policy implementation</li> <li>• Be advocates/lobbyists for positive policy changesArms length relationship</li> </ul>	<ul style="list-style-type: none"> <li>• Organizational Strategy that is aligned to shareholder &amp; GRZ goals</li> <li>• Good Organizational Performance (KPIs)</li> <li>• Return on Investment (ROI)</li> <li>• Dividends</li> <li>• Institutional Governance</li> <li>• Improve access to electricity</li> <li>• Infrastructure development</li> <li>• Improvement of social wellbeing of citizens</li> <li>• Complying to rules &amp; regulations</li> <li>• Cost of services to citizens</li> <li>• Contribution to the tax base;</li> <li>• Impact and management of COVID-19</li> </ul>
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## Frequency and Engagement Methods

**Frequency**

Monthly and quarterly basis

**Engagement Methods**

- Personal meetings,
- conferences
- Annual and quarterly reports
- Projects and Investment page on our website

## Expected Output and Outcome

**Why should we work closely with these?**

- To provide financial capital

**Expected output and outcome**

- Project Financing, Corporate financing and Support

## What are their interests?

- Institutional Governance
- Financial Performance
- Liquidity
- Strategy to ensure sustained financial growth
- Responsible utilisation of funds



## Our response

- Continued direct engagement with lenders
- Consistent reporting of company performance
- Dedicated relationship management team



## Capital(s) contributed or Impacted

Financial

## Value to stakeholder

- Return on investment





## Frequency and Engagement Methods

**REGULAR** Electronic Communication, Internal Bulletins, Publications, Safety Meetings, Staff Broadcasts, Trainings, Meetings & Workshops

Staff integrity awareness engagement

## Capital(s) contributed or Impacted



## Expected Output and Outcome

**Why should we work closely with these?**

This category of stakeholders represents our human capital that provides the manpower, knowledge, skills, experience and expertise necessary in delivering our mission and strategy. Constructive employee engagement promotes stable employee relations, enhances productivity, and ensures alignment in delivering on our strategic objectives

**Expected output and outcome**

- Cordial industrial relations,
- Increased productivity and maintaining a focus on our strategic objectives.
- Adherence to the Corporation's Code of Ethics and Integrity Related Policies.
- Staff retention
- Unethical conduct
- Weaknesses in systems and processes and remedial measures in the Corporation.

## What are their interests?

- Personal development
- Re-skilling & Training
- Fairness and equity
- Better conditions of service and employee welfare
- Accreditation of clinics to provide health services to ZESCO employee.



## Our response

- Management and meetings
- Employee Sensitizations
- Workshops and trainings to identify vulnerabilities in processes and systems
- Occupational health
- Safe working conditions
- Industrial relations meetings
- Salary reviews



## Capital(s) contributed or Impacted

Financial, Social and relationship, Human and intellectual

## Value to stakeholder

- Job security
- Reward and recognition
- Education and training
- Talent management and career planning





## Frequency and Engagement Methods

Regular Meetings/ Workshops, One on one meetings, notices in periodicals and the procurement page on the website.

## Capital(s) contributed or Impacted



## Expected Output and Outcome

**Why should we work closely with these?**

- Providers of raw materials and services

**Expected output and outcome**

- Credible/Trustworthy partners in supply chain management
- Speed of delivery
- Quality of products/ services

## What are their interests?

- Repeat business/ supply contracts
- Timely payment and fair terms;
- Continuity of contracts and sustainability of business



## Our response

- Increased focus on procurement with local suppliers
- Well-developed and implemented policies relating to suppliers,
- Annual procurement planning



## Capital(s) contributed or Impacted

Manufactured, Social and relationship and Financial

## Value to stakeholder

- Business continuity





## Frequency and Engagement Methods

**Frequency**

**REGULAR:** Electronic communication, letters, reports, publications, meetings, hearings & workshops

**Engagement Methods**

Meetings, Reports, Hearings, Emails, Letters, Workshops

## Capital(s) contributed or Impacted



## Expected Output and Outcome

**Why should we work closely with these?**

This category of stakeholder is the key regulator in the energy sector. Apart from regulatory compliance, they also issue the utility and other players in the sector with generation, distribution, transmission and supply licenses. Regulation is done via agreed on Key Performance Indicator Framework (KPI) that is reviewed every three years.

- Licencing
- KPI compliance
- Bi-annual and annual performance reporting
- Tariff application
- PPA approval
- Costs services review

## What are their interests?

- Institutional Governance
- Financial and Technical Performance
- Equitable electricity tariffs
- Environmental sustainability
- Transparency
- Compliance with all applicable laws and regulations



## Our response

- The Company maintains a strong focus on ensuring that it complies with all applicable regulatory requirements.
- Cooperate with regulators during statutory audits



## Capital(s) contributed or Impacted

Natural, Financial, Manufactured, Human, and Social and relationship

## Value to stakeholder

- Compliance





## Frequency and Engagement Methods

Frequency  
REGULAR

## Engagement Methods

- Interviews: Radio and TV interviews, Radio and TV discussion programmes,
- Facility Tours,
- Face-to-face and telephonic engagement
- Media briefings
- Media releases
- Product-related publicity
- Product launches
- Media Workshops,
- Distribution of printed handouts

## Capital(s) contributed or Impacted



## Expected Output and Outcome

## Why should we work closely with these?

Include: Radio Stations, Television Stations, Bloggers, Vloggers

This category of stakeholders increase visibility of the Corporation by informing the public and other stakeholders about its activities. They are involved in most of the companys activities because they are fundamental in promoting the corporate image.

- Accurate understanding and factual reporting of the corporation's projects, operations, products and services.
- The media are also key in fostering constructive relationships with other stakeholders.

## What are their interests?

- Being informed on projects and key activities
- Transparency on performance.
- Stories on ZESCO that sell
- Stories of significance to the public



## Our response

- Conducted media briefings and interviews
- Facility Visits to familiarise the media with the companys operations and projects



## Capital(s) contributed or Impacted

Social and Relationship

## Value to stakeholder

- Stories on ZESCO that sell
- Stories of significance to the public



#### Frequency and Engagement Methods

**FREQUENT**, Digital & printed Media, Town Hall Meetings, Corporate Social Investment (CSI), Charitable Donations and Sponsorships, Sensitisation Campaigns, information displays, Customer day engagements

- Customer service centres and call centres
- The website, the ZESCO Mobile App, Facebook Chatbot, WhatsApp, USSD Platform and Social media interaction

#### Capital(s) contributed or Impacted



#### Expected Output and Outcome

##### Why should we work closely with these?

Purchase our products and services, providing the basis for revenue growth.

- Support
- Good image/perceptions
- Mutual trust

#### What are their interests?

- Safe, reliable and affordable electricity
- Transparency in decisions & activities that concern them
- Information
- Service delivery
- Raise Integrity Awareness



#### Our response

- Customer Integrity Awareness and sensitisation
- Efficient service delivery



#### Capital(s) contributed or Impacted

Financial, Social and Relationships

#### Value to stakehol

- Improved customer experience





## Frequency and Engagement Methods

## REGULAR

- Group Meetings, One-on-one Meetings, reports, Commissioning of significant Projects, Social Media, road shows, town hall meetings
- Community interaction in projects relating to education, health, sport, cultural and financial inclusion
- Public participation on radio and television programmes

## Capital(s) contributed or Impacted



## Expected Output and Outcome

**Why should we work closely with these?**

Includes: Those communities in the vicinity of our operations on whose goodwill we depend, and who are directly impacted by our operations led by Local Government Authorities, Traditional Chiefs & other Authorities

We are accountable to our host communities to be a responsible corporate citizen. Communities can directly affect our social license to operate. In line with our values, we aim to leave them better off for our having been there during and after project implementation.

We aim to manage expectations, uphold human rights and ensure community and asset security. Mutually beneficial partnerships with host communities enhance shared value creation, which help in retaining our social licence to operate.

Strengthen the socioeconomic context in which we operate, inform our reputation.

- Buy-in into ZESCO's processes and projects
- Public support
- Help to stop Vandalism
- Appreciation of Safety rules & Practices
- Afford Land Rights for Wayleaves & servitudes or infrastructure developments

## What are their interests?

- Access to affordable Electricity
- Operations/Activities that empower the community
- Improved local economy and social wellbeing
- Compensation of displaced settlers
- Delivery of national development goals;
- Responsible investment in infrastructure;
- Transparency on our performance;



## Our response

- Awarding of bush clearing contracts to local communities
- Provision of the low cost life line tariff
- Participated in Expositions across the provinces to showcase major projects and the newly introduced online platforms.
- Provided necessary support towards the Covid 19 pandemic such as medical protective equipment and donations



## Capital(s) contributed or Impacted

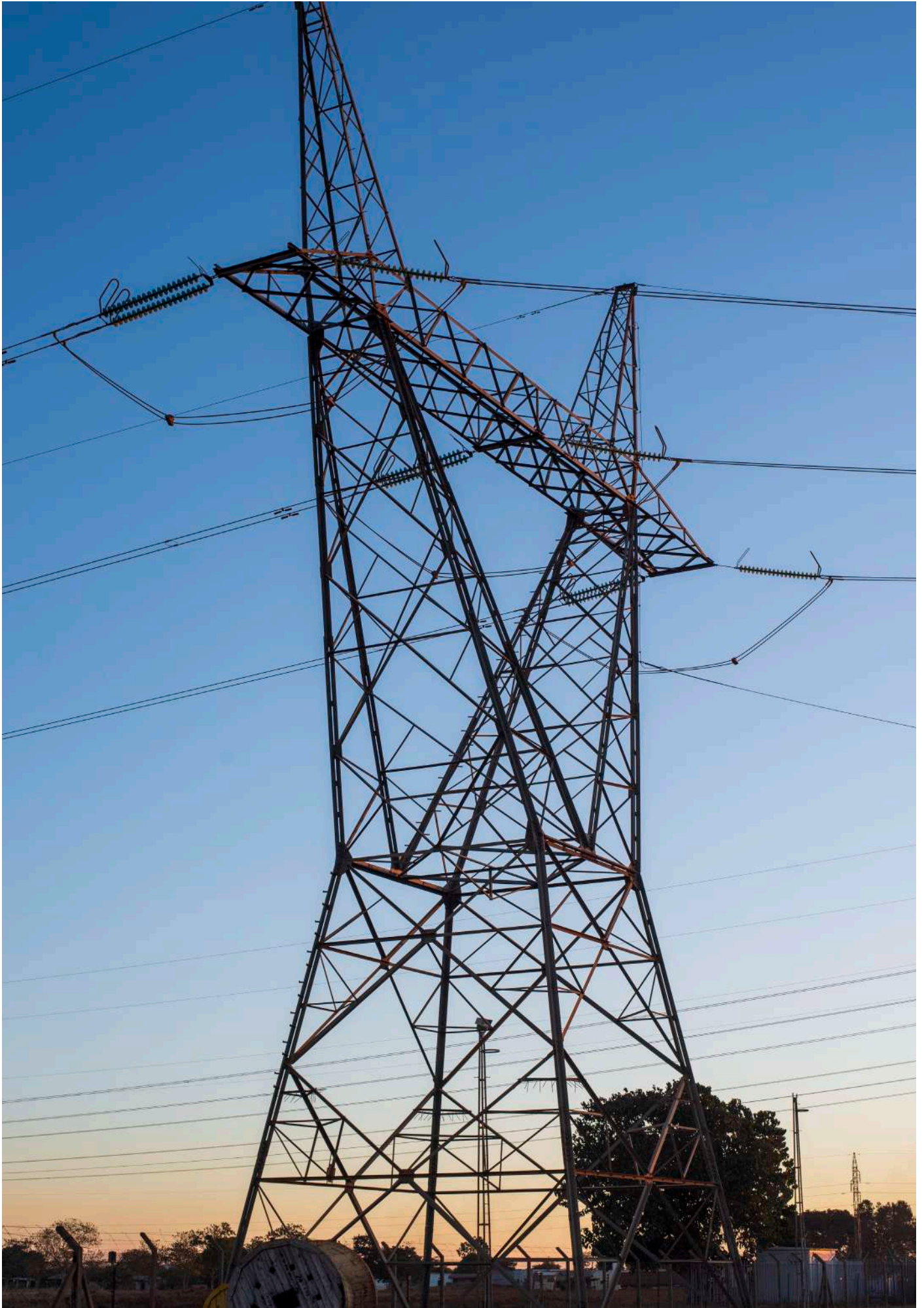
Social and Relationship

## Value to stakeholder

- Investment in community socio-economic development projects
- Local employment opportunities
- A stimulus for local economic growth
- Community health and safety

Throughout the period, we continued to adjust to the changes necessitated by the pandemic, and we recognised the importance of these changes as they evolved throughout the year. With vaccine programmes having a positive effect and restoring confidence and stability, engagement activities continued in smaller groups and conducted digital interactions for larger groups.







# Augmenting Our Human Capital Asset

The strategic role of a competent and professional team is integral to the achievement of the Organization's strategic objectives.

## Highlights

- Turnover per employee of K3.1m was a slight decline of 6% compared to K3.3m in 2021.
- A total of 2,740 employees underwent staff development trainings during the year compared to 2,573 the previous year.
- Increased adoption of technology to complement training through online sessions.

## Improvements

- A total of 305 COVID 19 vaccines doses and 155 booster shots were administered and over tests were conducted at our in-house Staff Wellness facilities demonstrating the organisation's commitment to employee health and safety.

## Long service retirement benefit

- 27 members of staff died during the year compared to 38 the previous year.
- A total 87 minor and 6 major accidents were recorded.
- 3,859-man hours were lost in sick leave
- Average GWh per employee of 4, down from 5 in 2021.

## Challenges

- Reduced levels of staff development due to COVID 19 and financial constraints

## Optimizing the Human Capital Base

Our employees remain a focal point for the achievement of strategic objectives. This as outlined in the ZESCO ten-year rolling strategy, "we efficiently manage our human capital through a transparent process that ensures that qualified, skilled, experienced staff are correctly placed for the achievement of key strategic objectives".

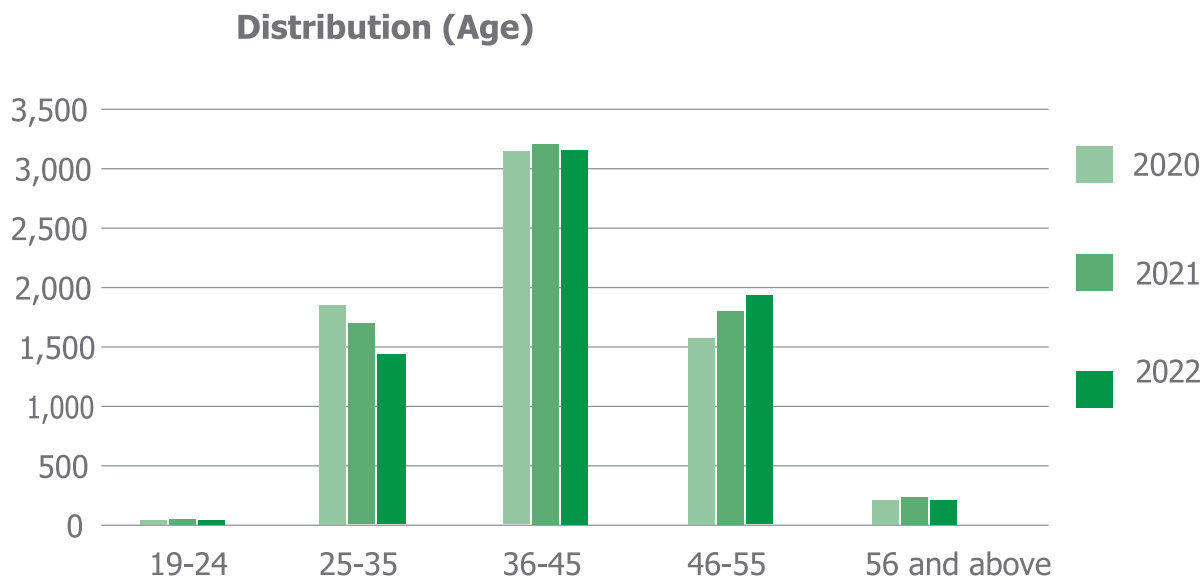
## The Workforce

The Labour strength decreased to 6,616 at the close of 2022 compared to 6,765 the previous year. However, 149 employees were lost through various modes of attrition such as death, resignations, dismissals, and retirement. A summary of the movement in numbers over the two years is as follows:

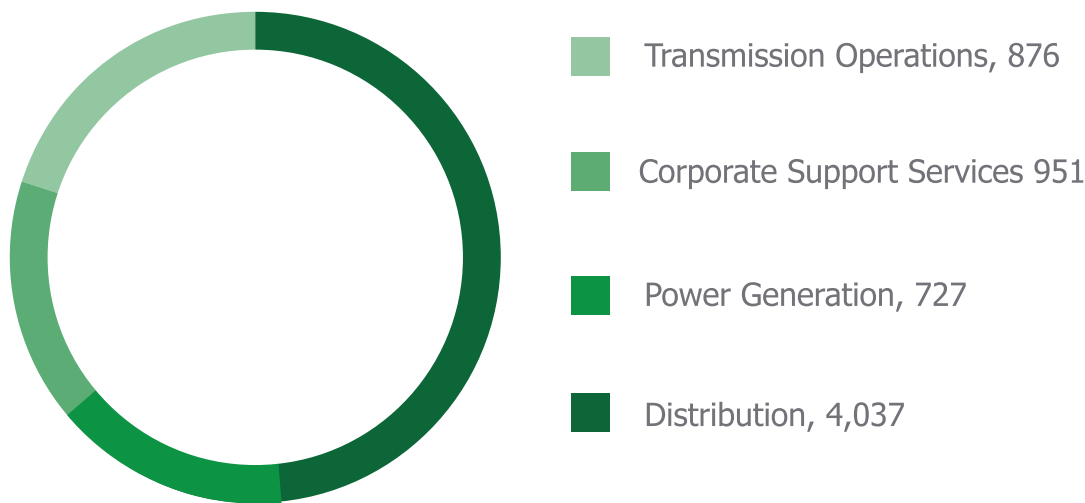
Staff Headcount	2022	2021	+ / -
<b>As at 1 January</b>	<b>6,765</b>	<b>6,759</b>	<b>0.1%</b>
Recruitments	284	63	351%
Reinstatements	14	57	-75%
Resignations	-11	-6	83%
Deaths	27	-16	69%
Dismissals	-67	-10	570%
Retirements	-100	-39	156%
Discharges Redundancies	-242	-32	656%
Expired Coontracts	0	-11	-100%
<b>As at 31 December</b>	<b>6,616</b>	<b>6,765</b>	<b>-2%</b>

Human Capital Profile

The age group distribution is demonstrated in the table below.

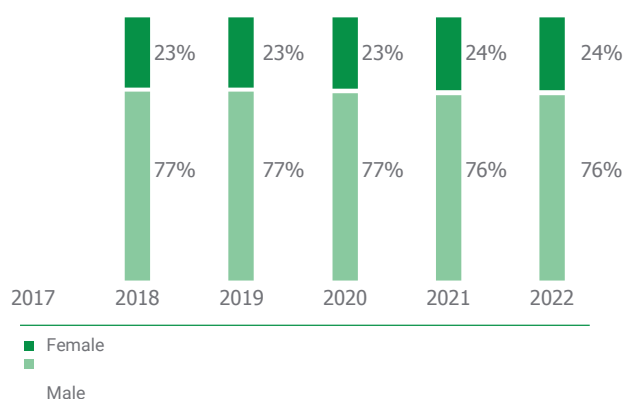


Staff Distribution



Staff Category	M	F	Total	Proportion
Management	1,511	740	2,251	34%
Reinstatements	3,515	850	4,365	66%
Total	5,026	1,590	6,616	

The statistics of the female workforce remained around 24% of the workforce, as in 2021. The annual ratio for the past 6 years is detailed below.



ZESCO has continued to embrace a deliberate set of policies and practices that support the representation of women in areas which they have been previously underrepresented such as Engineering. This is in line with the Equal Employment Opportunity Commission (EEOC), whose main purpose is to eliminate employment discrimination based on factors such as gender or religion. At the end of the year, more than 544 women held roles previously dominated by their male counterparts such as Engineers, Technologists, Technicians and Electricians compared to only 525 the previous year.

As a way of contributing to the development of industrial experience we continued providing opportunities to various students to be placed on attachment in ZESCO. These include both industrial and research attachments. During the year, a total of 135 requests for industrial attachment and 18 for academic research were processed unlike the previous year where only 12 requests were attended to due to COVID 19 restrictions. The exercise is intended to provide an opportunity for students to gain the required work experience prior to employment while the research is for students to carry out workplace-based research that allows them to obtain their qualification.

### Graduate Assessment Program

The Graduate Assessment Program continued in the year and 29 employees underwent both technical and non-technical Graduate Assessment (GAP).

The reduction from the thirteen (13) sessions to only two (2) and from seventy (70) graduates assessed the previous year was due to COVID 19 restrictions.

### Human Capital Development Strategic Partnerships ZESCO Training Centre (ZTC)

The Training Centre remains a strategic partner in supporting staff development through generic and tailored training to both ZESCO and non-ZESCO staff. During the Financial under review a total number of 41 in service sponsored students proceeded on Industrial attachments for a period of 3 months from 12 September 2022 to 09 December 2022. The Training Centre also had 46 Self-Sponsored Students. The programs on offer at the Centre include long term courses such as Overhead Lines Construction, Cable Jointing and Electrical Fitting. The Training Centre also offers short intensive courses under the TEVETA Skills Development Fund (SDF).

### Kafue Gorge Regional Training Centre (KGRTC)

The strategic partnership between ZESCO and the Kafue Gorge Regional Training Centre (KGRTC) to develop skills and competencies in energy technologies for the sub-Saharan region has continued. The Centre was established in 1989 with its core business being hydropower training, conferences, and accommodation by ZESCO Limited and was eventually ceded to a Board of Trustees between 1997 and 2000. ZESCO retains the chairmanship of the Board as a key stakeholder and provides a grant to cater for over half of the Centre's budget through hiring of the facility and grants for staff emoluments.

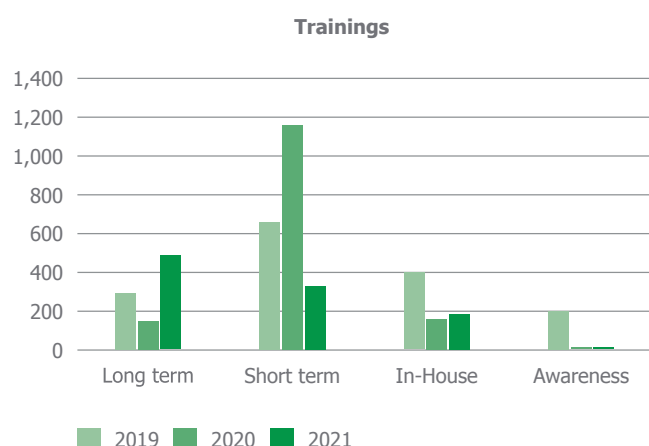
During the year, a number of training courses were conducted for ZESCO staff by the Centre, and these ranged from On-Campus courses, demand driven and catalogue courses. The courses offered range from core trainings such as hydropower plant operations, control room operations and reliability centered maintenance. Other non-core courses are provided such as AutoCAD techniques, skills for green jobs, contracts management, and procurement and contracts management. During the year, a special course was also run for ZESCO in Financial Modelling and Bank Financing for renewable energy IPPs in Africa.

A total of K32.3 million was also provided in grants to the Centre compared to K26.6 million the previous year. This partnership has resulted in the development of key skills in ZESCO across the value chain and is expected to continue for the foreseeable future.

### Staff Development

To maintain a sustainable human capital base, we have continued to extend support to staff through various initiatives including full sponsorship, paid study leave, and facilitating short courses.

During the year 2,740 employees benefited from staff trainings, an increase of 6% over the previous year with a total of K2.5million spent. This was mainly on account of an increase in the number of conferences, seminars, and workshops, TEVETA SDF training and other sponsorships. These staff development initiatives have continued to upskill staff.





Below is the distribution of training interventions during the year under review

Status (Nos.)	2022	2021	Diff (+/-)	% (+/-)
Full Company Sponsorship	1	2	(1)	(50)
Sponsored (ZTC)	41	29	12	41
Paid Study Leave	181	180	1	1
Un-Paid Study Leave	-	1	(1)	(100)
Capacity Building	340	-	340	-
System Based Trainings	893	203	690	340
Conferences/ Workshops/ Seminars	1,623	1,205	418	35
TEVETA Skills Development Fund Trainings	-	440	(440)	35
<b>Total</b>	<b>3,079</b>	<b>2,060</b>	<b>1,019</b>	<b>167</b>

### Staff Wellness

To achieve maximum productivity and efficiency, ZESCO continued to invest in staff wellness initiatives through partnerships with private and public health care providers. Below is a summary of some of the related key metrics over the past two years.

### COVID 19 Response

ZESCO partnered with the Ministry of Health through the Lusaka Provincial Health Office to reactivate its inhouse facilities as vaccination Centres to administer both primary and booster vaccines for AstraZeneca, Janssen & Janssen (J&J), Sinopharm and Pfizer. A total of 305 doses of primary vaccines and 155 booster vaccines were administered during the year. During the period ZESCO continued monitoring adherence to set health guidelines on the prevention of COVID-19 infection at the workplace as the pandemic was still very active with a surge in the number of positive cases.

A total of 267 COVID-19 tests were done out of which 95% tested positive and 1,061 employees were placed on self-quarantine at their homes and 19 employees were hospitalized. Unfortunately, 30 employees succumbed to COVID-19 related and unrelated causes. The countrywide disinfection of offices and customer service Centres continued.

### Future Focus

As a response to the dynamism in employee requirements, customers, and the general environment, we strive to implement initiatives that enhance staff productivity, upskill staff and ensure a workforce that is abreast with best practice. We are therefore intent on supporting our team to acquire relevant and up to date qualifications, certifications, and skills to be employed across the value chain.

The welfare of our staff has always been paramount for corporate leadership and greatly values collaborations to recruit, develop and retain a specialized core of staff.

We remain confident that the cordial industrial relationship is expected to thrive as support is extended to staff in the execution of their duties, while guaranteeing their protection from all forms of exploitation and harm.

Corporate leadership remains resolute on achieving the recruitment, development, and retention of skilled and competent cadre of staff. A productive and efficient team is cardinal to the realization of our strategic goals.



## EXPANDED INFRASTRUCTURE

During the period under review, ZESCO continued to implement Strategic focus Area no. 3 Expanded Infrastructure across its value chain.

Under Generation, the major project that was fully commissioned was the Kafue Gorge Lower project that increased the installed capacity by an additional 750MW. Additionally, the uprating and rehabilitation of the Chishimba Falls Power Station from 10MW to 14.8MW was under way with only some environmental assessments having been conducted. The Transmission system continued to be expanded also during the period with various projects adding to the Transmission distance, Transformation and evacuation capacity. Notable projects included.

- Connection of Lundazi and Chama to the national electricity grid,
- Second Kabwe-Pensulo 330kV transmission Line,
- Reinforcement of supply To Sanje (Mumbwa ZAF) 33/11kV Substation,
- New Mumbwa 33/11kV Substation and 33kV Line from Nambala Substation to Kabalwa.

On the Distribution system, in addition to the natural growth of our customer connection network, a number of projects were carried out that increased access to electricity while expanding our infrastructure. Notable projects included;

- Lusaka Transmission and Distribution Rehabilitation Project (LTDRP)
- Increased Access to Electricity Services Project (JICA Phase II)
- Electricity Services Access Project (ESAP)
- LTDRP Last Mile: Rehabilitation, Extension and Strengthening of the Low Voltage Electrical Distribution Network in Lusaka
- Sustainable Electricity Supply Southern Division (SESSD) Project

In addition to the core units within the ZESCO value chain, support units also contribute to the creation of assets. Projects include Civil related projects that support both the core and non-core sections of the organization. During the period under review, below were some notable civil infrastructures added to our Asset Base;

- Construction of various control buildings across the country
- Construction of ZESCO offices
- Refurbishments to ZESCO buildings
- Construction of storage facilities
- 

In the Information and Communication Technology section, ZESCO invested in;

- Under the Fleet management unit, ZESCO acquired 89 utility vehicles to support its operations and improve efficiency. This increased its Transport base from 1,455 in 2021 to 1,484 in 2022.

Below are the details of the various projects undertaken in 2022 at various stages of completion;



	Project	Description
POWER GENERATION	Kafue Gorge Lower 750MW Hydropower Project	<p>The project is located in the southern part of the country on the Kafue River basin, downstream of Kafue Gorge Power Station.</p> <p>The objective of the project is to increase installed capacity and optimise the water usage on the Kafue River basin by cascading the power plants. When the plant reaches commercial operation the installed capacity on this waterbody will be 1,860MW.</p> <p>During the period under review, this project was commissioned with only 30% of works remaining on the the Kafue Gorge Lower – Lusaka West and Kafue West – Lusaka West lines</p>
	Chishimba Falls Power Station (CFPS) Rehabilitation and Uprating to project	<p>This is a 14.8MW project located in the northern part of the country on the Luombe river basin. The project will rehabilitate and update the existing plant from 10MW to 14.8MW.</p> <p>The objective of the project is to increase installed capacity and improve the quality of supply in the Northern circuit. The project is also aimed at achieving geographical diversification as most of ZESCO Plants are in the Southern part of the Country.</p> <p>During the period under review, only the Biomass assessment was conducted as part of the environmental studies.</p>
	Project	Description
G&T PLANNING AND PROJECTS	System-wide reactive Power compensation	<p>The key objectives of the assignment was to establish solutions that minimise system losses, increase the transfer capacity and improve the dynamic performance of the ZESCO transmission network taking into consideration the future generation and transmission plan and the regional power trading context.</p> <p>Through the study, dynamic voltage support solutions were identified for Pensulo, Proposed Nakonde, Luano and Kalumbila Substations. The Luano and Kalumbila projects were ready for the market and were just awaiting funding.</p> <p>During the period under review, was yet to be funded.</p>
	Kasama – Nakonde	<p>This project was part of Zambia Tanzania Kenya (ZTK) and Kalungwishi power evacuation whose scope included the construction of a total of 387km of 330kV line from Kasama to Mporokoso and Kasama to Nakonde and associated substations to be constructed in Mporokoso and Nakonde.</p> <p>The project aims to secure power supplies to the Muchinga, Northern and Luapula Provinces.</p> <p>In the period under review, the contractor had carried out some preliminary works such as surveys of the transmission lines and geotechnical investigations.</p>
	Evacuation of power From Ndola Energy Phase ii	<p>This project is aimed at power evacuation from the extended Ndola Energy HFO power plant.</p> <p>The scope includes construction of 1.3km of 66kv transmission lines, rehabilitation and upgrading of Bwana Mkubwa 66/33kv substation.</p> <p>During the period under review, the project was completed with only works at Ndola Energy and Mushili 66/11kV substation expected to be completed in the first quarter of 2023.</p>
	Second Kabwe-Pensulo 330kv transmission line	<p>The project is part of the Zambia Tanzania Kenya whose scope includes the construction of a 300km 330kV Transmission line</p> <p>from Kabwe Stepdown Substation to Pensulo Substation and associated Substation works.</p> <p>During the period under review, the project was at 86% completion.</p>



Project	Description
Msoro and Kabwe step Down reactor	<p>The objective of the project is to provide means of voltage control at Kabwe step down and Msoro substations on the 330Kv network.</p> <p>The project was ongoing during the period under review.</p>
Kafubu and Kafulafuta Water supply system	<p>The objective of this project is to provide power supply to the newly constructed Kafulafuta Water Supply System. The project scopes include the construction of 15km of 66kv transmission line.</p> <p>During the period under review, Kafulafuta Dam 66/33KV Substation civil works were 80% complete at the substation whilst the Transmission line foundation works were at 50%.</p>
Reinforcement of supply To Sanje (Mumbwa ZAF) 33/11kv substation	<p>The objective is to increase the transmission line transfer capacity by operating the Nampundwe – Sanje Line at its design voltage of 88kV and subsequently increasing the overall access to electricity to Mumbwa and surrounding areas.</p> <p>The project scope involves upgrading Sanje from 33/11kV to 132–88/33/11kV Substation and Establishing a 132 – 88kV bay at Nampundwe Substation. The scope will also include development of a 33kV distribution network to ensure continuity of supply to existing customers.</p> <p>The project was completed during the period under review.</p>
Connection of Lundazi and Chama to the National electricity Grid	<p>The objective is to connect Lundazi and Chama to the National Grid. Currently, Lundazi and Chama are supplied by ESCOM Malawi and also supplemented by Diesel Generating Plants. Frequent and prolonged interruptions have necessitated this project.</p> <p>The main scope of the project is to construct substations and 132kV (325km) Transmission Line from Chipata West Substation to Lundazi and Chama. The scope also includes developing a distribution network comprising 185km of distribution lines with various transformation points.</p> <p>During the period under review, the project was at 98% completion.</p>
New Mumbwa 33/11kv Substation and 33kv Line from Nambala Substation to Kabalwa	<p>The project's objective is to construct a new urban type 33/11kV substation whose scope of work involves includes construction of a control room, Installation of 1x 10/15MVA 33/11kV Transformer and Construction of 37.6km of a 33kV line from Nambala to Kabalwa via Chibuluma and Chipa.</p> <p>The project was completed during the period under review.</p>
ZTK	<p>The project scope of the outstanding works is as follows:</p> <p><b>Package 1-</b> Design, Supply and Installation service for second 330kV single circuit Pensulo-Mpika overhead transmission line, 186km length, and associated substation works at Pensulo and Mpika.</p> <p><b>Package 2-</b> Design, Supply and Installation service for second 330kV single circuit Mpika-Kasama overhead transmission line, 200km length, and associated substation works at Mpika and Kasama.</p> <p><b>Package 3-</b> Design, Supply and Installation service for 330kV - Double circuit 330kV Kasama-Nakonde overhead transmission line, 212km length, Double circuit 400kV overhead transmission line from Nakonde to the Tanzanian border, 15km length (charged at 330 kV), Double circuit 132kV Isoka-Nakonde (loop in and out of 66kV Isoka - Nakonde line) overhead transmission line, 12km length New Nakonde 330/132/66kV substation</p> <p><b>Package 4-</b> Design, Supply and Installation service for dynamic voltage support devices (<math>\pm 250\text{MVAR}</math>) and associated substation works at Pensulo and the new Nakonde Substation.</p>

Project	Description
<b>ZIZABONA (Zimbabwe – Zambia- Botswana-Namibia) Interconnector Project</b>	<p data-bbox="857 190 1079 213"><b>Background and Aim</b></p> <p data-bbox="857 243 1485 346">The ZIZABONA project is an electrical power interconnection project part of the South African Power Pool developed to facilitate export or import and to trade energy between four countries: Zimbabwe, Zambia, Botswana and Namibia.</p> <p data-bbox="857 374 1458 477">The project aims to ease North-South transmission corridors through Zimbabwe and South Africa as well as help reduce transmission losses, increase reliability, enhance energy security and promote electricity trading.</p> <p data-bbox="857 502 922 525"><b>Scope</b></p> <p data-bbox="857 553 1453 576">The ZIZABONA project comprises three components as follows:</p> <p data-bbox="857 603 1469 730"><b>Component A:</b> The development of 101km of a 400kV transmission line between Hwange and Victoria Falls substations in Zimbabwe. It also involves the development of 14km of 330kV transmission lines between New Victoria Falls substation in Zimbabwe and Mukuni substation in Livingstone, Zambia.</p> <p data-bbox="857 757 1490 838"><b>Component B:</b> The development of 79km of a 400kV transmission line between Victoria Falls substation in Zimbabwe and Pandamatenga in Botswana.</p> <p data-bbox="857 863 1453 932"><b>Component C:</b> The development of 231km of a 330kV transmission line between Mukuni substation in Livingstone and Zambezi substation in Namibia.</p> <p data-bbox="857 959 906 982"><b>Cost</b></p> <p data-bbox="857 1012 1490 1115">The cost estimate for the above scope is about USD150 million with the Zambian component at USD75 million. The cost estimates have not been updated since 2017 and it is likely that current prices would be much higher.</p> <p data-bbox="857 1141 927 1164"><b>Status</b></p> <p data-bbox="857 1193 1393 1239">ZESCO constructed &amp; commissioned the 330/220 Mukuni substation.</p> <p data-bbox="857 1267 1382 1313">SEFA/GGIA update of 2017 Feasibility &amp; ESIA Studies to decarbonise the project commenced.</p> <p data-bbox="857 1340 1377 1363">Meridiam(Pty) gap analysis &amp; structuring was proposed</p>
<b>Kolwezi – Solwezi Interconnector Transmission Project</b>	<p data-bbox="857 1407 1485 1717">The Governments of the Democratic Republic of Congo (DRC) and the Republic of Zambia have agreed to strengthen their existing power co-operation by among others, constructing the Kolwezi-Solwezi 330kV transmission inter-connector (KSIC). To this effect, an Intergovernmental Memorandum of Understanding (IGMoU) between DRC and Zambia was initially signed in July 2015 and a Feasibility Study of the project was carried out by WSP in 2019. However, the project had never been implemented, mainly due to lack of availability of public funding and sovereign debt for such project. The current feasibility study, funded by SwedFund and managed by the African Development Bank (AfDB), therefore aims at identifying potential PPP structures for the project.</p> <p data-bbox="857 1744 1469 1848">The legal frameworks in DRC and Zambia present similarities that participate in a transparent and detailed organization of the PPP award process. They both cover various aspects, such as the tender process, agreement execution, and results publication.</p> <p data-bbox="857 1873 927 1896"><b>Status</b></p> <p data-bbox="857 1926 1481 2029">During the Period under review, the project was still reviewing the recommendations made by WSP(consultant) feasibility studies of 2019. The project was still not implemented due to lack of public finance and sovereign debt.</p>

Project	Description
<p><b>Mozambique – Zambia Interconnector</b></p>	<p><b>Background</b></p> <p>The governments of Mozambique and Zambia have agreed to strengthen their existing bilateral cooperation by interconnecting their power systems on a high voltage level. Mozambique has significant generation potential based on diverse resources, including gas, coal, hydro, and other renewables.</p> <p>Consequently, Mozambique is poised to become a net exporter of electricity in the long term. To this end, an Inter-Governmental Memorandum of Understanding (IGMoU) was signed between the two governments on March 17, 2016, in Maputo.</p> <p>Additionally, the two national power utilities—Electricidade de Mozambique (EDM) and ZESCO of Zambia—entered into an Inter-Utility Memorandum of Understanding (IUMoU) to facilitate cooperation in the implementation of these projects. ZESCO and EDM signed on 19 March 2025 an IUMoU for the development of the Mozambique-Zambia (MOZA) power interconnector project. This implementation of the agreement is expected to reduce imbalances between demand and supply in both countries, improve the security of power supply, especially considering the recent droughts that have been occurring with increasing frequency due to climate change. Moreover, the Mozambique-Zambia power interconnector project is expected to contribute to power trade while strengthening grid</p> <p><b>Scope</b></p> <p>The MOZA Interconnector project will involve the construction of about 375km of 400kV transmission lines running from Matambo in Mozambique’s Tete province to Chipata in Zambia’s Eastern province, along with a lower-voltage link between Feira/Luangwa in eastern Zambia and Zumbo in northern Mozambique.</p> <p>The main component involves constructing two single-circuit 400kV lines connecting the Matambo substation to the Chipata West 330kV substation, which is set to be upgraded. About 278km of the project will be located in Mozambique and 97km in Zambia.</p> <p><b>Cost</b></p> <p>The CAPEX budget is estimated at about 411.5 million USD . In this context AfDB has assigned Fichtner (the Consultant) a contract which aims at supporting both countries in the delivery of a viability assessment of the MOZA Interconnector and an options assessment for the best procurement and implementation model. This assessment study will provide a Value for Money (VfM) assessment and will propose solutions to overcome barriers inhibiting the implementation of the interconnector</p> <p><b>Status</b></p> <p>During the Period under review the final Feasibility study report was submitted by AF-Consult Switzerland (in co-operation with WSP as a sub-contractor). The recommendations of the report were not implemented as the EPC scope and Tender documents were not clearly outlined.</p>



**Project**
**Description**

Lusaka Transmission and Distribution Rehabilitation Project (LTDRP)

The main objective of LTDRP has been to increase the capacity and improve the reliability of the electricity transmission and distribution system of Lusaka City. The key expected outcomes of the project were: (i) an increase of the capacity along the Lusaka transmission and distribution system; (ii) an improvement of the reliability of the electricity transmission and distribution system in the Lusaka area, and (iii) an expansion in the direct project beneficiaries, including the female population.

The project scope involves construction of substations and associated switching stations, installation of cables and uprating of transformers. and installation of

During the period under review, the project was at 86% completion.

Increased Access to Electricity Services Project (JICA Phase II)

The objective of the Phase II Project was to improve access to electricity in the rural areas by constructing distribution lines, and related facilities, thereby improving living standard of local residents including the poor and promoting economic and social development in the beneficiary areas.

The Project involved construction of distribution lines together with limited low voltage (400V) supply lines.

The project was completed in 2022.

Electricity Services Access Project (ESAP)

The project seeks to improve access to electricity in the rural areas by subsidizing the cost of connection. The approved subsidy connection fees for this action are ZMW 250.00 for households and ZMW 769.00 for Small and Medium Entrepreneurs (SMEs).

During the period under review, the project was at various stages of completion across the country.

LTDRP Last Mile: Rehabilitation, Extension and Strengthening of the Low Voltage Electrical Distribution Network in Lusaka

The project aims to integrate customer connections in low-income townships in Lusaka City to realize the full benefits of the network built under LTDRP Project.

The target is to connect 63,000 customers in three packages in the following townships: Chainda, Kamanga and Mtendere Townships Garden, Mandevu and Ngwerere Townships Chawama and John Howard Townships

During the period under review, the project was at 45% completion.

Sustainable Electricity Supply Southern Division (SESSD) project

The project aims at resolving the challenge of lack of capacity for existing and future demand for fast growing towns in Central, Eastern, Southern and Western provinces.

The implementation of the project will result in increased capacity, improved reliability, increased access, improved quality of supply and improved service delivery.

The project scope involves the:

- Construction of 1 x 132-66/33/11kV Substation and 2 x 33/11kV Substations as well as rehabilitation of 1 x 88/33/11kV and 1 x 33/11kV Substations in Kabwe
- Construction of 33/11kV Substations in Petauke, Nyimba, Sinda and Mazabuka (one in each town)
- Construction of 1 x 66/11kV Substation in Livingstone and Rehabilitation of 1 x 33/11kV Substation in Livingstone
- Construction of a 132-66/33/11kV Substation in Mongu
- Rehabilitation of a 66/33kV Substation in Katete (Azele Substation).

During the period under review, the project was at 16% completion.

# Our Industry

The Zambia Electricity Supply Industry (ESI) is composed of Power Producers with the main players being ZESCO, Independent Power Producers (IPPs), and Independent Power Traders.

ESI Institutional and Legal Framework  
The Ministry of Energy (MoE) is responsible for policy implementation in the energy sector and oversees the following statutory bodies in the Electricity Supply Industry;

## Energy Regulation Board (ERB):

The Government established the Energy Regulation Board through the Energy Regulation Act CAP 436 of the Laws of Zambia with a second amendment in 2020 to enhance and enable it to regulate the sector effectively.

## Zambezi River Authority (ZRA):

The Zambezi River Authority is bilaterally managed by Zambia and Zimbabwe on a 50-50 basis. It was established by the Zambezi River Authority Act No. 17 of 1987 which was simultaneously enacted in both countries. Its mandate is to manage the water in the Kariba Dam to support the hydroelectricity generation activities at the Kariba North and South Complexes.

## Rural Electrification Authority (REA):

The Rural Electrification Authority was established through the enactment of the Rural Electrification Act No. 20 of 2003 with the mandate of increasing rural access to electricity.

Furthermore, MoE has created the Office of Promoting Private Power Investments (OPPI) to promote private sector participation and investment in the electricity sector. This office has led to the implementation of projects such as the 300 MW Maamba Coal Fired Power Plant, 120 MW Itezhi-Tezhi Hydroelectric Power plant, 750 MW Kafue Gorge Lower Hydroelectric Power Project.

The three main statutes that govern the electricity sector in Zambia are;

The Electricity Act No. 11 of 2019  
The Energy Regulation Act No. 12 of 2019  
The Rural Electrification Act No. 20 of 2019

The statutes were amended and enacted during the year, and are impacting the ESI business landscape through among others the following;

## Key 2022 Sector highlights


- Launch of 8NDP to provide a clear policy framework and development roadmap for the Electricity Sector in the period 2022 to 2026.
- Development of the Ministry of Energy's 30-year Integrated Resource Plan (IRP) for the electricity sector
- Conclusion of ESI Cost of Service Study CoSS in the year, further a white paper was Issued following countrywide consultations.


## Structure of the ESI

The ESI is broken down into the following subsectors with both Off-Grid and In-Grid players.




- Generation Subsector – These are actors involved in the generation of electricity using different sources.
- Transmission Subsector – These are actors involved in the evacuation of power from generating plants to different Load centers countrywide and beyond.
- Distribution Subsector - These are actors involved in taking power to different users such as households, businesses, farmers, etc.

## On Grid ESI Player

On Grid ESI Player	MW	%
 <b>Hydro Space</b>		
ZESCO Corporation Limited	1,876.80	
KGL Power Development Corporation Limited	750.00	
KNBE Power Corporation Limited	360.00	
Itezhi Tezhi Power Company Limited	120.00	
Lunsemfwa Hydro Power Company	56.00	
Total	3,162.80	84%

 <b>Thermal (Coal) Space</b>		
Maamba Collieries	300.00	
Dangote	30.00	
Total	330.00	9%

## Off-Grid ESI Player

Off-Grid ESI Player	MW	%
 <b>Hydro Space</b>		
Zengamina	0.75	
Kasanjiku Hydro Power Mini-Grid	0.64	
Total	1.39	8%
 <b>Solar Space</b>		
REA	0.06	
Engie	0.03	
Solera Power	0.16	
Total	0.25	2%
 <b>HFO, Diesel and Gas Space</b>		
ZESCO Corporation Limited	15.00	90%
Total ESI Grid Installed Capacity	16.64	100%



### Solar Space

Bangweulu	54.30	
Ngonye	34.00	
Total	88.30	2%

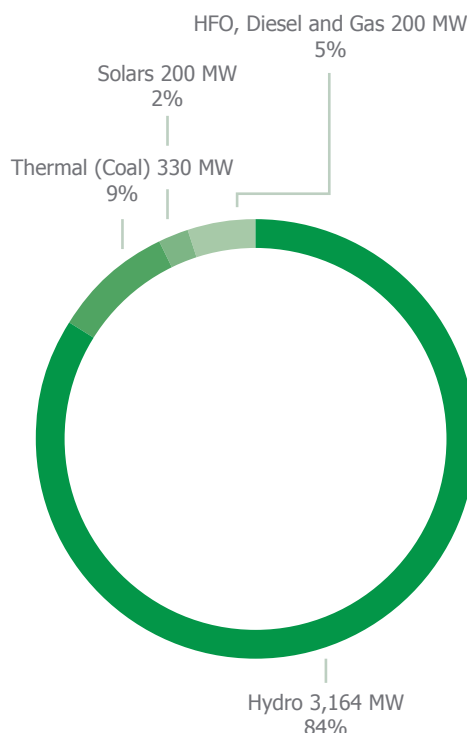


### HFO, Diesel and Gas Space

Ndola Energy Company Limited	105.00	
Copperbelt Energy Corporation PLC	80.00	
Total	185.00	5%

Total ESI Grid Installed Capacity	3,766.10	100%
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### Generation

The sector has the potential to expand the current industry's installed capacity.

i. Hydro Generation – The country has a hydro generation potential of about 6,000 MW with less than 50% developed. The Major project with an installed capacity of 750 MW was fully commissioned. Various projects at different stages of implementation are underway and will be added to the installed capacity in the medium term.

ii. Renewable Energy – Zambia has approximately 68% sunshine hours annually with an average irradiation of 5.5kWh/m<sup>2</sup>/day. These are ideal conditions for the development of solar photovoltaic (PV) projects. There is a lot of interest by players in developing solar power plants. In the short to medium term, it's expected that the installed capacity in the solar space will grow and significantly contribute to the ESI installed capacity.

One of the major initiatives in the renewable energy space within the ESI has been the development of large-scale solar projects, notably the Bangweulu and Ngonye plants in the Lusaka Multi-Facility Economic Zone.

### Transmission

The ESI is taking advantage of Zambia's land-linked position to eight countries to develop transmission corridors and interconnection capacity with neighboring countries. The development of the ZTK transmission infrastructure as envisioned in 8NDP will act as a link between the Southern Africa Power Pool and the Eastern Power Pool. The Other Interconnection projects such as ZIZABONA, and Kolwezi are part of the Development Plan.

### Distribution

The national population with access to electricity is only 32.8%, broken down as 70.8% and 8.1% for urban and rural areas respectively. The low electricity penetration provides potential for growth in the sub-sector.

### STRATEGIC DIRECTION

The Ministry of Energy is undertaking the following key projects to strengthen the Zambian ESI:

1. Integrated Resource Planning (IRP) in the Power Sector.

### Overview

The IRP is a 30-year plan intended to transform the sector into a diverse, climate-resilient, financially sustainable sector that can provide universal access to quality power supply. An IRP outlines a country's resource requirements to meet the energy demand in line with the United Nations Sustainable Development Goals (SDGs)

## 2. TRANSMISSION SUBSECTOR

The players in the transmission sector remained unchanged in 2022. CEC infrastructure is mainly in the Copperbelt province whereas ZESCO's transmission network is across all nine provinces. Lunsemfwa Hydro Power Company Limited and Maamba Collieries Ltd operate power evacuation transmission lines from their respective power stations in central and southern provinces respectively. ZESCO Ltd is executing various projects to expand and strengthen the transmission network and interconnection infrastructure.

### Key Projects in the Transmission Subsector;

- Implementation of Lusaka Transmission and Distribution Reinforcement Project (LTDRP) – Transmission Scope involves - Reinforcement of the Existing 132kV Network, Upgrading Lusaka 88kV transmission lines to 132kV, and Construction of New 132kV Lines and Substations. The successful implementation of this project continued in 2022 and the World Bank Funded component of the Project was completed.
- The 2nd Kabwe – Pensulo 330kV Transmission Project has been undertaken to improve transmission capacity on the northern circuit of the transmission system.

## 3. DISTRIBUTION

The Distribution component is a fully regulated market with two major companies holding Distribution Network Service Provider (DNSP) licenses to supply electricity to retail customers.

The composition of the sector is mainly:

- i. ZESCO Limited – with the largest share of the customer base around 99.8% (Over 1.3 million Customers)
- ii. North Western Energy Corporation (NWECC) - accounts for the remaining 0.2%. (Over 3,000 Customers)
- iii. Other

### Sector Outlook

The ESI has the potential for growth in all sectors of the value chain. Highlighted below are some of the growth opportunities:



## Key ESI Challenges.

The following are the challenges of the Energy Sector that the IRP intends to address.

- i. Country Dependency on Hydropower Generation
- ii. Climate Risk
- iii. Financial Sustainability
- iv. Grid Readiness.

## IRP Workstreams

### i. Demand Forecast

This will review the demographic trends to ascertain load forecast against available generation.

### ii. Generation Resource Assessment and Planning.

This will identify factors that impact the ESI's sustainable diversification of its generation sources.

### iii. Transmission Infrastructure Planning

Through substation-based demand modeling, this focuses on factors affecting current transmission infrastructure and capacity, and future network requirements.

### iv. Distribution and Demand Side Management.

Through substation-based demand modeling, this focuses on factors affecting current distribution infrastructure and capacity, and future network requirements.

### v. Power Procurement, Financial Mobilization, and Market Structure.

The focus areas for this workstream will include.

- Identifying project financing sources and financial appraisal of projects to be prioritized through IRP.
- Migration from the single off-taker model to a market-based approach with bilateral contracts and energy traders
- Actualise the operation of a liberalized electricity market.
- Establishing an independent System Operator and economically efficient system planning.

The development of the IRP has been undertaken by CIG Zambia in partnership with ZESCO, ERB and REA, and funded by the UKaid. The development of the IRP continued in 2022.

## 2.Pamodzi, Working Together for Clean Energy

### Project Overview

EU-Zambia Pamodzi for Energy is a project where the European Union and the Zambian Government collaborate in the ESI with the following goals;

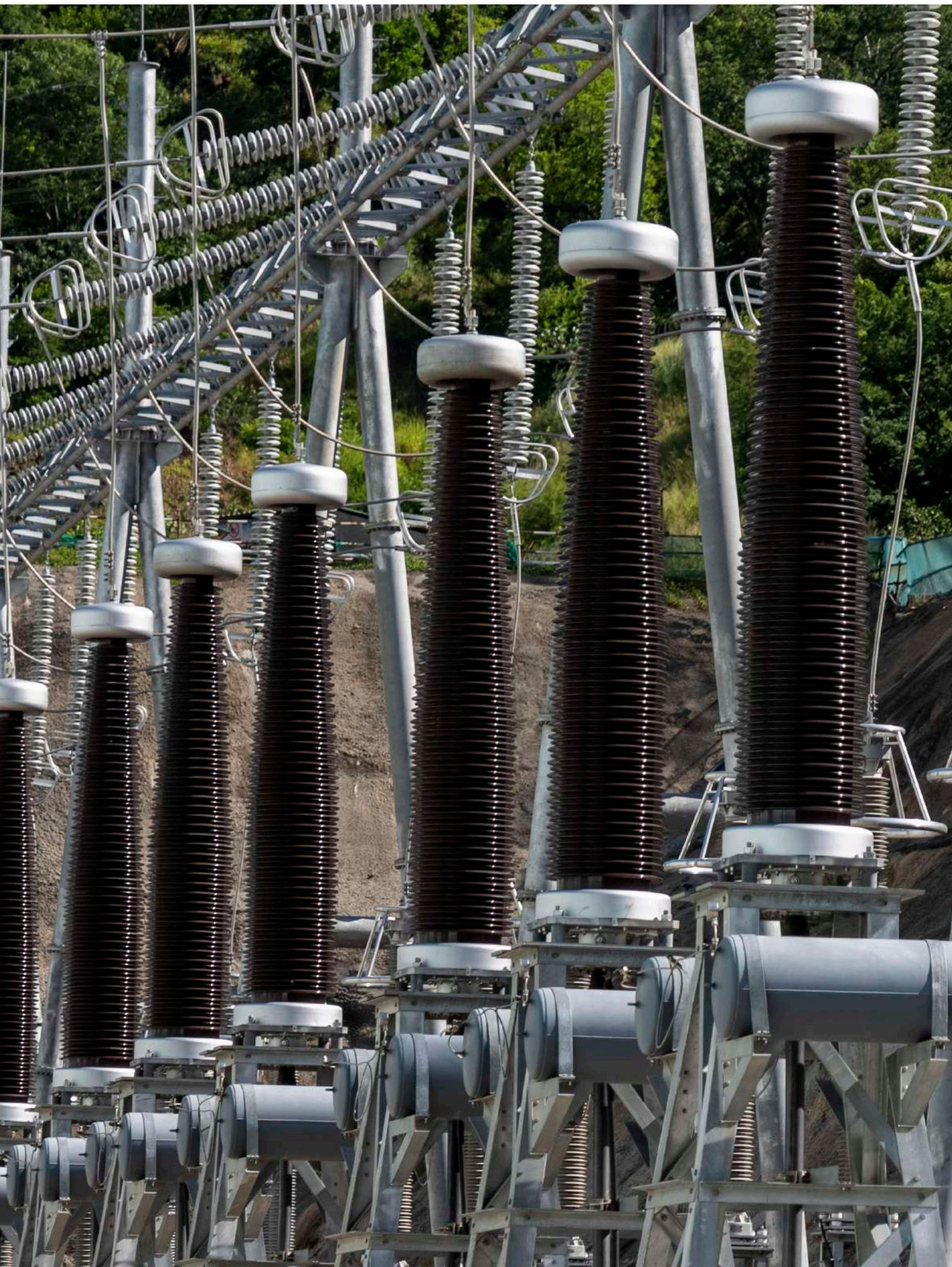
- Sustain Sector Growth and Competitiveness through improved Access to clean, reliable, and affordable energy for all.
- Support the 8th National Development Plan

### Key Activities

- Provided grants for improving energy policies and rolling out off-grid solutions in Rural areas.
- Upgrading of Kariba Dam Infrastructure
- Improving Electricity Distribution Network in Lusaka (ESAP)









# Innovation and Development

ZESCO employs cutting-edge technology to adapt to changing market dynamics, gain a competitive advantage, and significantly improve operational efficiency while lowering costs and enhancing service delivery. To encourage innovation, ZESCO provided a platform for innovators to showcase their inventions at the 2022 International Trade Fair, which was themed “Promoting Value Addition through Sustainable Growth.” This initiative provided an opportunity for innovators to showcase a variety of innovative solutions that can improve people’s lives



Smart Farming



Solar Steam Autoclave



Thermoelectric Cooler

### Customer Focus

Our journey toward digital transformation continued in 2022 with an agenda to improve customer service delivery by digitizing customer-facing systems.

As part of the transformation, the website was enhanced to include a Virtual Service Center where customers can submit power applications and report faults. Postpaid customers can now access their account information and download monthly statements from the website. Furthermore, the Mobile Application, USSD code, WhatsApp Business Platform, and Facebook Chatbot were improved to enhance the customer experience. Customers can now use these platforms to access our various services, which include:

- Faults reporting and tracking
- New connection application and tracking
- Outage updates
- Residential tariff simulation; viewing of prepaid tokens; and energy saving and safety tips

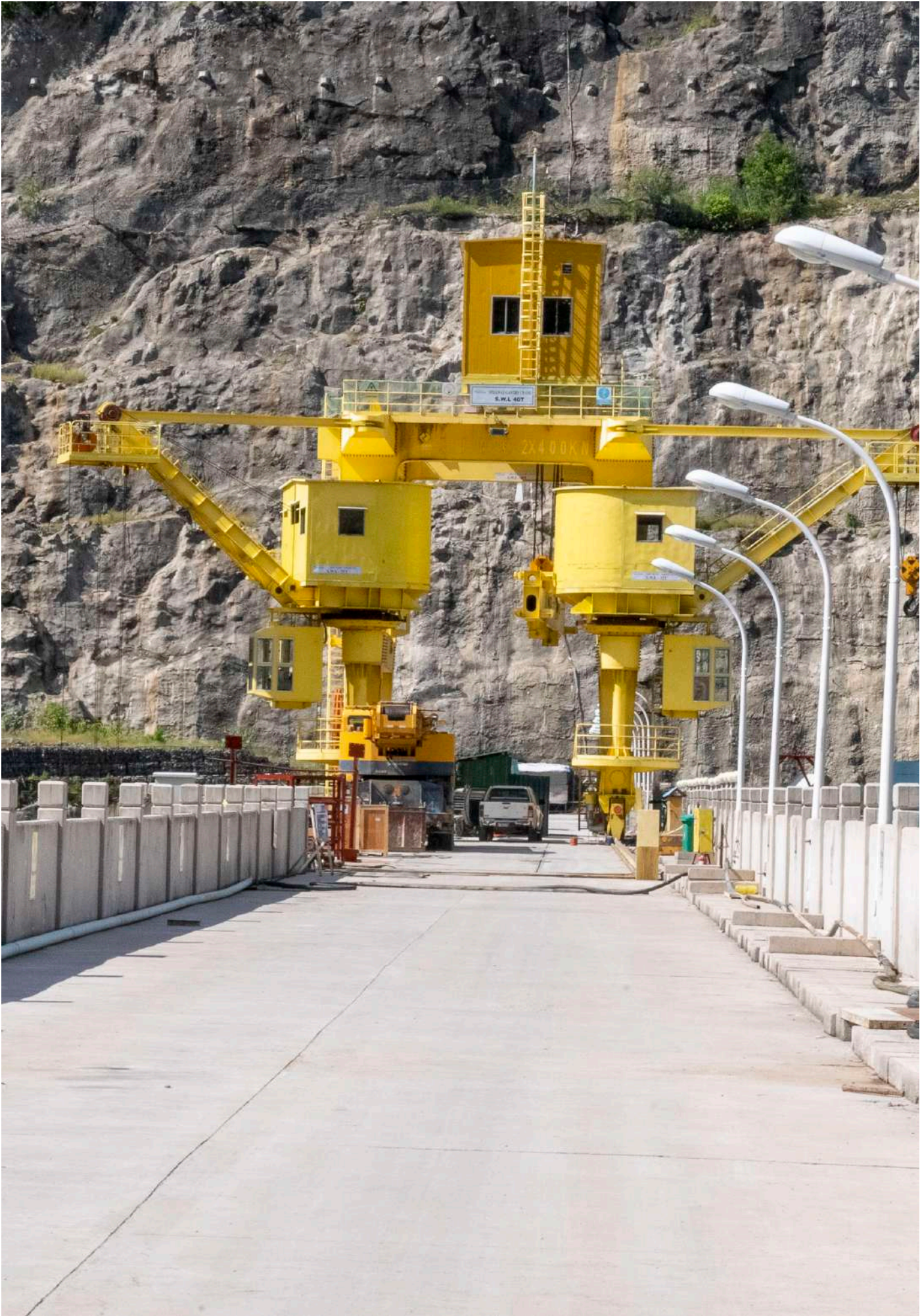
The following statistics from our Omni channels show a total of 2,910,002 user interactions. The USSD is the most preferred platform by our customers with 2,762,152 user interactions in the period under review.

Item no	Platform	Totals
1	Corporate Website	134,331
2	WhatsApp	8,360
3	Mobile App	38,317
4	USSD	2,762,152

### Internal Process Innovations

- Embracing digital transformation has also increased business efficiency. This is evidenced by the introduction of several in-house systems, such as.
- Budget Management System (BMS). The BMS was created to automate the process by which user departments submit their budget requirements.
  - Payroll and Human Capital Management System (PHCMS). The PHCMS was created to address the need to reduce vendor dependence and system maintenance costs while also improving the use of innovative technology. The immediate results include reduced maintenance and license fees, increased operation efficiency and effectiveness in payroll and Human Capital functions.
  - ZESCO Private Cloud. The purpose of the ZESCO Private cloud is to provide our customers with a highly secure and robust storage environment.







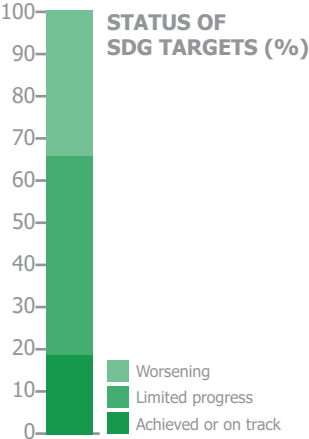
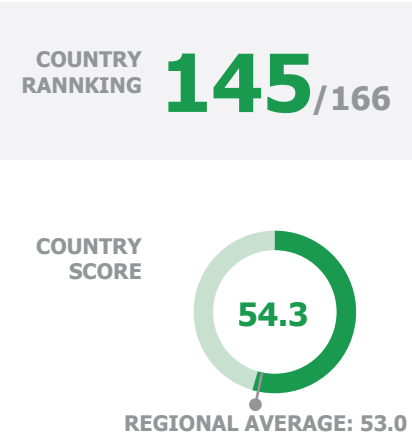
# ROADMAP TO SDG INTEGRATION IN ZESCO

The United Nations (UN) launched the 2030 Agenda for Sustainable Development as a framework to guide the world towards prosperity for people and the planet. (United Nations Department of Economic and Social Affairs Sustainable Development, 2015) The 17 Sustainable Development Goals (SDGs) are a call to action for the transformation of financial, economic, societal and political systems. Zambia took on this call to action and amended its constitution in 2016 to enshrine sustainable development among its national values and principles (Parliament of the republic of zambia, 2016).

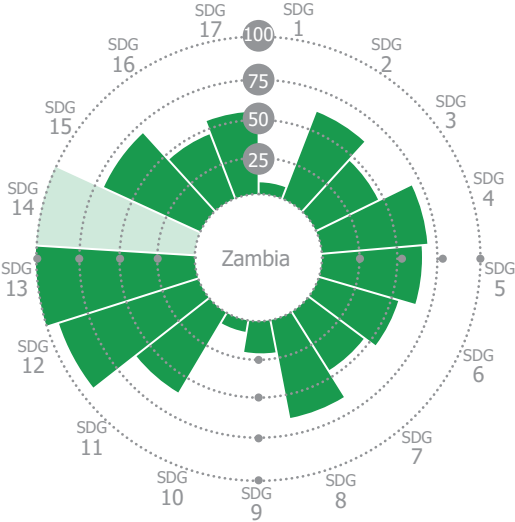
## Country SDGs profile 2022

### ZAMBIA

#### OVERALL PERFORMANCE



#### OVERALL PERFORMANCE BY SDG



#### SDG DASHBOARDS AND TRENDS



# SDG Integration in Zesco









ZESCO is aware of the fundamental role it plays towards contributing to the overall attainment of SDGs by the country. As a leader in the Electricity Supply Industry, the company is committed to promoting sustainable development to achieve economic growth without compromising on environmental sustainability. Zesco recognizes that its contribution will help shape and drive the future of the sustainability agenda which is anchored on the company's vision and core ideology, to be an effective provider of reliable and environmentally sustainable electricity services fall.

In the year 2022 Zesco launched its Strategic Plan, a tool developed by the company's corporate leadership team, which outlined Zescos sustainability agenda and its intended contributions to the sustainability agenda. The contributions are guided by the specific and measurable targets and indicators to promote sustainability and contribute to the achievement of SDGs.

ZESCO through its operations directly impacts six of the 17 SDGs. These are the SDGs the company has the capacity to influence through

mitigation of the negative impact of its operations on the SDGs and increase positive impact of its operations on SDGs.

A review of these SDGs against Zambia's SDG performance highlights impact opportunities for the power utility sector in Zambia and an opportunity to access how Zesco's Strategic plan 10 addresses SDG attainment.

SDG	COUNTRY PERFORMANCE	INDICATOR	STRATEGIC PLAN
	Significant challenges remain, but the score is moderately improving.	Business policy of zero tolerance towards gender-based violence and harassment.	Reinforced Human Capital and Development policies put in place to ensure a work environment with zero tolerance for violence and harassment against female employees.
	Major challenges remain and the score is stagnating or increasing at less than 50% of required rate	Anthropogenic wastewater that receives treatment	
	Major challenges remain Score is stagnating	Population with access to electricity	Expand generation, Transmission and Distribution systems.  Enhance maintenance programme for Generation, Transmission and Distribution systems  Develop, implement and use modern technology in our business
	Major challenges remain Score is moderately improving	Fundamental labour rights are effectively guaranteed	Reinforced Human Capital and Development policies put in place to ensure labour laws are abided by
	Major challenges remain Score stagnating or increasing at less than 50% of required rate		Planned infrastructure investment  Planned Investment in research and development  Partnering with universities in Zambia on innovation in the power utility sector  Planned sourcing of potential investors for infrastructure and renewable energy investments
	Climate Action: reduction of CO2 Emissions from fossil fuel SDG achieved and moderately improving		Investment in renewable energy sources that have low CO2 and greenhouse gas emissions such as solar and wind.
	No available data		
	Major challenges remain Score is stagnating		

While strides have been made in the journey towards attaining the 2030 SDGs, there remains much work to be done in understanding, communicating, managing and tracking the impact of the company's operations and progress towards achieving SDG Targets. Backed by a government and a corporate leadership team committed to sustainability with a buy into the sustainability agenda, ZESCO is ideally positioned to achieve full integration of the sustainability agenda into its operations.

# Organisation Risk and Uncertainty

The Enterprise Risk Management (ERM) Framework is a process that is anchored on our ability to identify and manage risks that have the potential to impact the execution of ZESCO's Ten (10) year rolling Strategic plan.

The ERM's main goals are as follows:

- Outline a clear approach to Risk Management,
- Protect and enhance enterprise value through effective decision-making, and efficient application of the Risk Management framework.
- Strategic alignment by ensuring Risk Management is integrated into ZESCO's operations.
- Focus on mitigating, transferring, avoiding and accepting risks based on their likelihood and impact to ZESCO's objectives.
- Enhance resilience though helping ZESCO anticipate and prepare for potential risks and disruptions.

The ERM is divided into four main parts, as indicated below, these support and maintain risk management across the entire company:



### Risk Management Policy Direction

The policy assigns accountability for risk management and outlines ZESCO's approach to risk management. It guarantees that every Business Unit (BU) efficiently handles risks.

### Enterprise Risk Management System

This a critical component of an effective risk management framework with the following forming the system;

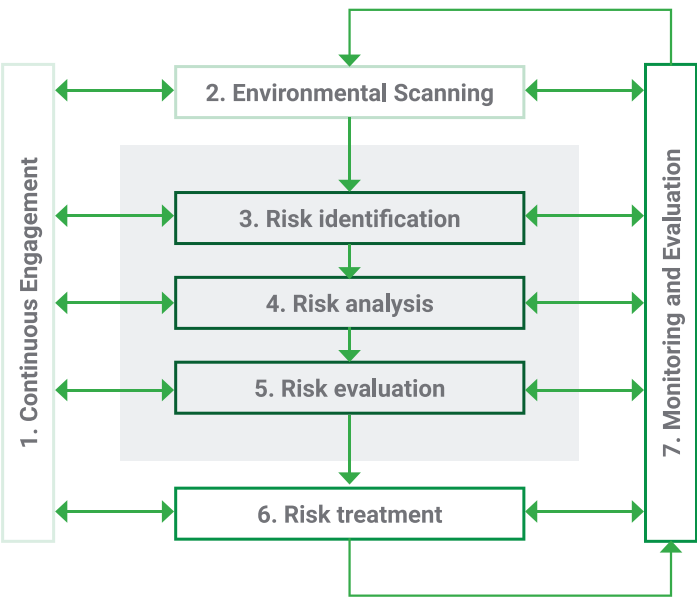
- a. Risk Management Culture – refers to systems of values and behaviors that establish how an organization addresses current and future risks.
- b. Tools and Templates – These are used in the implementation of ERM.
- c. Risk Reporting – defines the framework for communicating risk information.
- d. Risk Evaluation and Review –refers to a review of risk management capability and governance system.

### Risk Management Process

The current approved ERM framework has been expanded to a seven-step Risk Management Process by including two cross-cutting components. These are

- communication and consultation, and
- monitoring and review.

Below is a Seven-step risk management process, Steps 2 to 6 are sequentially implemented with steps 1 and 7 components existing at each stage of the five stages in the risk management process.



### Risk Management Governance Structure



### The Board

The board's role is to ensure that the organization has an effective and efficient risk management strategy, and establishes the risk tolerance that guarantees adherence to strategic goals and objectives.

### Corporate Leadership Team

They are responsible and accountable for the development and implementation of the ERM Framework.

### Business Units

Our Business Units(BUs) are responsible for the day-to-day risk management through policy implementation, supervision, and management of the risk management process.



# Outlook for Our Risk Management.

ZESCO is currently reviewing its Enterprise Risk Management framework to make it more resilient and responsive to current risk trends. The ERM intends to migrate to the Three Line of Defence (3 LoD) model of Risk Management from its traditional model that is in use. Below is the overview of the 3 LoD Model.

The full model will be deployed in the coming year as a management consultation and reviews have been finalized.



## Risk Categorization

Our risks in broad terms are broken down into six major categories,

Strategic	Some of the key risks we are observing under this category are Political, Reputation, stakeholder Management risks and strategy execution
Financial Risk	Some of the key risks we are observing under this category are Financial Processing Risks, FX Risks
Safety, Health and Environment	Some of the key risks we are observing under this category are Safety and Climate Risks
Regulatory Risk	Some of the key risks we are observing under this category are Regulatory Risks, legal, Regulatory and Ethical standards Compliance
Operational Risk	Some of the key risks we are observing under this category are Cyber Security and System Resilience, Asset Management Risks

## Our Key Risk

Our key risk include risks and opportunities that have a direct potential impact on revenue, liquidity, assets, strategic objectives, near- to medium-term business plans, and stakeholders.

Risk description	Potential Risk Impact	Risk Mitigation
<b>1. Climate Change risks</b> <b>I4,L4 : 16</b> <p>Changes in climatic conditions such as droughts, excessive temperatures, and flash floods are heavily impacting both the local and regional business landscape.</p>	<p>The Corporation's electricity generation business is predominantly hydro and is susceptible to the effects of climate change. This can affect our overall operations at the various water storage reservoirs, which impacts the generation of electricity.</p>	<p>In a quest to optimize water use within the same river basin, ZESCO has put the cascaded generation strategy into practice to lessen the consequences of climate change. The plan entails the construction of Hydro Power Plants spread at different points across the same river basin to maximize water use and boost generation capacity.</p> <p>The model has been implemented on the Kafue River basin which initially had 990MW and now has the following additional investment: ITPC-120MW, KGLPS – 750MW. This will bring the total installed capacity on the Kafue River Basin to 1,860MW</p> <p>The corporation has created a fully functional Renewable and Research business unit to spearhead the generation mix diversification by bringing on board renewable generation sources such as solar, wind, geothermal, etc The diversification of the generation mix is key to the sustainability of ZESCO's business model.</p>
<b>2. Cybersecurity threat and System Resilience</b> <b>I4, L3 : 12</b> <p>Risk of Cyber security, IT systems resilience, IT system internal misuse, and business continuity</p>	<p>Some potential risks that can be associated with this risk type are;</p> <ul style="list-style-type: none"> <li>Information Breaches (hackers and viruses),</li> <li>Failure of the system to cope with peak customer demand.</li> <li>Disaster disrupts the IT infrastructure.</li> <li>Disruption of Business and Operations processes that are anchored by ICT systems.</li> </ul>	<p>Information System (IS) security underpins our ability to achieve various strategic objectives. Management has continued to invest in cybersecurity systems, to enhance the organization's capability to intelligently monitor and react to cyber threats. The following systems and tools have been deployed to mitigate the risk; Security Operations Centre (SOC), Endpoint Detection and Response (EDR), Mobile Device Management (MDM), Data Loss Protection (DLP), and Network Access Control.</p> <p>Further, management continues to sustain its IT Infrastructure and Solutions through its consistent investments and adapting systems and infrastructure to current business needs. ZESCO's business continuity strategy is anchored on comprehensive disaster recovery plans in compliance with ISO 27001.</p>
<b>3. Safety, Health, Environment (SHE)</b> <b>I4,L2:8</b> <p>Risk of harm to our customers, employees, third parties, and failure to protect the environment in which we operate.</p>	<p>Our operations have the potential to result in personal and environmental harm. Significant SHE events have regulatory, financial, and reputational repercussions for our business.</p>	<p>Management has embraced the SHEQ Management Systems as part of its corporate culture through its policies, standards, and procedures that ensure that employees, customers, and other third parties are protected. ZESCO has successfully maintained its ISO Certifications ISO 9001, 14001, and 45001.</p> <p>Having Power System operators who are authorized to carry out switchings is key to sustaining the organization's safety culture. As an incentive, management has set up a one-off incentive scheme aimed at motivating and rewarding technical staff who become system-authorized.</p> <p>Management ensures that all major projects with significant environmental footprints comply with Zambia Environmental Management Authority (ZEMA) requirements i.e. Approved Environmental Impact Assessment (EIA) reports and also ensures the Project Affected People (PAPs) are compensated.</p> <p>SHE is a part of our value system in which management has committed; "We shall adhere to the highest safety practices and endeavour to protect our stakeholders from danger, risk, or injury in all our operations. We shall apply business solutions that enable us to grow in a manner that has the least adverse effects on the environment".</p>

Risk description	Potential Risk Impact	Risk Mitigation
<b>4. Asset Management Risk I4,L2:8</b>  Risk of failure to effectively and adequately undertake asset management activities such as asset capture, maintenance, network reinforcements, and expansion.	Failure to effectively undertake asset management could lead to asset underperformance resulting in network failure, increased unplanned outages, network overload, reduced asset useful life, loss of revenue, and customer dissatisfaction.	Our approach to asset management is enshrined in our strategic objective "To have an effective maintenance regime for Generation, Transmission and Distribution systems." The Technical Sub Committee of our Board reviews and approves the operating directorates' (generation, transmission, and Distribution) quarterly reports. These technical reports include but are not limited to, information on core asset operations, maintenance, and projects such as; <ul style="list-style-type: none"> <li>• Maintenance activities</li> <li>• Planned and Unplanned Outages</li> <li>• Investment in new assets</li> </ul>
<b>5. Operation Technology Risk I2,L4:8</b>  Risk of unavailable and unreliable Operation Technology (OT) systems such as SCADA, Network Manager, Distribution Management Systems etc that are deployed to aid network operations.	ZESCO's value chain electricity infrastructure is automated and has placed significant reliance on the Operational Technology infrastructure used in managing the organization's core operations. Its failure would result in economic, financial, and reputational impact on the company.	<ul style="list-style-type: none"> <li>• Management ensures that we have continued investments in reliable network automation solutions in line with industry best practices.</li> <li>• Ensuring OT Systems integrity by conducting annual expert system audits, security reviews, and patching to ascertain and sustain the operational integrity of our systems.</li> </ul>
<b>6. Political and Legal Risk I3,L3:9</b>  The risks from changes in the political and legal environment such as changes in laws, governance structure, and policies.	<p>Key changes in the legal framework governing the Electricity Supply Industry (ESI) may have the potential to bring changes to the ESI.</p> <p>There is a risk that these changes in the Legal and Policy framework have the potential to impact ZESCO's operations and business environment.</p>	<p>The following are some of the mitigations for the risk:</p> <ul style="list-style-type: none"> <li>• Ensure we actively participate in the legislative process through lobbying, and making submissions during law development stages.</li> <li>• Ensure our legal team continuously reviews and identify areas where the business can take competitive advantage using the existing framework.</li> </ul>
<b>7. Stakeholder Management Risk I3,L3:9</b>  The risk of failure to manage healthy relationships with stakeholders can impede the achievement of business goals and objectives.	<p>Effective stakeholder management is critical for attainment of various key strategic objectives such as:</p> <ul style="list-style-type: none"> <li>• Financial Sustainability – Government, Regulator, Financiers, Communities, customers, employees, ZAM, ZNFU and Chamber of Mines etc.</li> <li>• Expand the Generation, Transmission, and Distribution Systems – Government, ZEMA, NWASCO, Communities (Persons Affected by Projects) and Contractors etc.</li> <li>• Human Capital Optimisation – Training Institutions, Labour</li> </ul>	<p>In 2021, Corporate Leadership undertook many stakeholder and customer engagements based on various activities, such as Customer interactions, Safety and Product awareness, sensitizations, and Project updates. The following are some of the activities undertaken:</p> <ul style="list-style-type: none"> <li>• Management hosted Facility Tours for shareholders, community leaders, and the media at facilities such as Kafue George Lower Power Station commissioning and other key ZESCO Infrastructure.</li> <li>• Public participation using TV and radio interviews, social media interactions, roadshows, etc. as a way to interact with customers and communities.</li> <li>• Corporate Leadership Team (CLT) held countrywide employee town hall meetings and Labour union engagements as part of internal stakeholder engagement.</li> </ul>



Risk description	Potential Risk Impact	Risk Mitigation
<b>8. Regulatory Risk - I2,L3:6</b>  All Electricity tariff changes in domestic and wholesale markets are subject to regulatory approval.	The non-cost-reflective tariff in the ESI implies that there is a disparity between the price paid by consumers and the cost of obtaining electricity from Independent Power Producers (IPPs). There is a risk that failure to approve ZESCO's annual tariff applications will derail the plan to migrate to cost-reflective tariffs, further constraining ZESCO's cash flow position..	<ul style="list-style-type: none"> <li>Supporting the completion of the ESI cost of service study which is expected to provide a migration path towards attaining cost-reflective tariffs.</li> <li>Engaging IPPs to review tariffs.</li> <li>Continually engaging the stakeholders concerning tariff reviews.</li> </ul>
<b>9. Strategy Delivery I2,L3:6</b>  The risk that changes in the macro-environment may render our strategy ineffective.	<p>Successful delivery of our strategy requires serving customers, managing and building infrastructure in a way that satisfies our stakeholders.</p> <p>Therefore failure to invest in appropriate responses to changing markets and competitive business environments, and/or build the necessary infrastructure that enhances our capabilities to compete, has the potential to adversely impact our cash flow growth, survival, and value goals.</p>	<p>The Board sets and reviews ZESCO's strategy, which determines the company's strategic objective and values anchoring the business. Regular reviews are conducted to take into account changes in the competitive business environment that may affect ZESCO's ability to achieve its strategy.</p> <p>The Investment and Finance Committee of the board ensures we have a clear financial strategy to finance our strategic initiatives and provides oversight on corporate Leadership's external resource mobilization initiatives.</p>
<b>10. Compliance Risk I4,L1:4</b>  The risk that non-compliance to laws, regulations, and ethics may adversely impact our operations.	Failure to act ethically or comply with legal and regulatory obligations would undermine our stakeholder trust, and lead to financial penalties and reputational damage.	<p>As one of the measures to manage the Compliance risk, the Board and CLT have operationalized the Integrity Committee program as a corruption prevention strategy by engaging with our customers, communities and suppliers to sensitise them on ethical conduct.</p> <p>Our Whistleblower policy outline the corporate culture and attitude towards malfeasance such as fraud and corruption to provide a consistent corporate-wide approach to report any unethical behavior without fear or victimisation.</p>

### 11. Foreign Exchange (FX) Risk I3, L2:6

FX risk exists when a financial transaction is denominated in a currency other than the domestic currency of the company.

Most of ZESCO's obligations and receipts are in foreign-denominated currencies. The kwacha to dollar exchange movements have the potential to affect attainment of electricity cost-reflective tariffs.

- ZESCO hedges against foreign exchange movements by matching its foreign-denominated receipts with foreign-denominated obligations.
- Further, migration of Customers above 5000kVA from the kwacha tariff regime to a dollar regime will help increase the foreign denominated inflows which can be used to settle foreign denominated obligations.

### 12. Major Public Health crises and Global Pandemic Risk I3,L4:12

The Risk that an occurrence of a global public health crisis will affect our ability to deliver a service, and the operations.

- Spread of infectious diseases (Global pandemic e.g. Covid-19)
- Increased default risk for sensitive and Bulk Supply Agreement (BSA) customers and obligations.
- Inaccurate and or major changes in Budget assumptions
- Loss of Staff

ZESCO has invested in various IT platforms that will enable business continuity in the event of Global Pandemics that disrupt our normal work arrangements. These platforms exist to support our employees in performing day-to-day office operations remotely and ensure our customers have access to a variety of distribution channels for our products and services.

### 13. Liquidity Risk I4,L2:8

The risk is that the balance sheet may not be able to meet financing conditions which could limit our ability to obtain funding for the corporation's growth capital projects.

- Failure to raise affordable financing for Capital Investments.
- Delayed implementation for Capital projects resulting in increased project delivery cost.
- Failure to successfully implement the strategic objectives credit rating, which would adversely impact access to cost-effective capital and trading arrangements.

- Management is actively engaging all IPPs to renegotiate the tariff in a cost reflective.
- Management is pursuing the shareholder to convert On Lent Loan to equity and Refinance existing loan obligations to make them sustainable.
- Management intends to resolve all the outstanding commercial dispute with PPA customers to unlock the receivables.

### 14. Revenue Leakages I2,L4:8

The risk of misappropriation of assets leading to loss of revenue

Loss of revenue from technical and non-technical losses such as vandalism, power theft, System failure and losses, etc Potential Impact

- Loss of Revenue
- Inability to provide an efficient service leading to poor customer service.
- Increased cost of replacing the vandalized assets.
- Increased technical losses due to aged critical electricity infrastructure

- The current tariff proposal has maintained a lifeline tariff of 100 units to support low-income communities.
- Community engagements and sensitization on the effects of vandalism such as engaging the public on bush clearing programs, radio flights, etc.
- Increased patrols by the ZESCO police.
- Management has continued investments in infrastructure to upgrade and reinforce the network to reduce technical losses.

A background image showing a hand holding a pen, poised over a calculator. The image is faded and serves as a backdrop for the text.

# **2022 ZESCO LIMITED GROUP FINANCIAL STATEMENTS**



ZESCO LIMITED  
CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE YEAR ENDED  
31 DECEMBER 2022

## **ZESCO LIMITED**

(Incorporated in Zambia)

### **CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022**

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Consolidated statement of changes in Equity

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Consolidated statement of financial position

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# REPORT OF THE DIRECTORS

The Directors present their report and audited consolidated financial statements for the year ended 31 December 2022.

## PRINCIPAL ACTIVITY

The principal activities of the ZESCO Limited ("Company") and its subsidiaries, Kafue Gorge Lower Power Development Corporation Limited, Kalungwishi Hydropower Company Limited, Fibrecom 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 subsidiary, Fibrecom Limited also provides Fibreoptic Communication backbone. 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 loss for the year amounted to K 1.4 billion (2021: profit, K10.4 billion). The Directors do not recommend payment of a dividend in respect of the year ended 31 December 2022.

## DIRECTORS

The Directors who held office during the year were:

Mr. Vickson Ncube  
Mr. Victor B. Mapani  
Ms. Edna Mwaala Mudenda  
Dr. Jolly Kamwanga  
Mr. Charles Kaisala  
Mrs. Chikonjiwe Mumba  
Mr. Emmanuel Gardner

Board Chairperson  
Managing Director

Mr. McRobby Chiwale  
Mrs. Matembo Lisimba

Company Secretary (Retired on 28 February 2023)  
Company Secretary (Appointed on 15 June 2023)



## REPORT OF THE DIRECTORS (CONTINUED)

### 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

The Group invested a total of K2.5 billion (2021: K 4.9 billion) in property, plant and equipment during the year, as disclosed in note 14 to the financial statements. In the opinion of the directors of the Group, the fair values of property, plant and equipment are not less than the amounts at which they are included in the financial statements.

### INTANGIBLE ASSETS

During the year the Group acquired software amounting to K146.8 million (2021: K2.5 million).

### EXPORTS

The value of electricity exports by the Group were K4.7 billion (2021: K4.1 billion).

### DONATIONS

The Group as part of Corporate Social Investment made donations during the year amounting to K5.9 million (2021: K8.6 million).

### RESEARCH AND DEVELOPMENT

The Group's research and development activities during the year amounted to K4.1 million (2021: K4.9 million).

### SHARE CAPITAL

The Group's authorised share capital remained unchanged during the year as disclosed in note 20 in the notes to the financial statements.

### EMPLOYEES

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

	2022	2021
January	6,782	6,870
February	6,764	6,866
March	6,865	6,865
April	6,802	6,871
May	6,734	6,856
June	6,755	6,862
July	6,753	6,851
August	6,731	6,833
September	6,731	6,851
October	6,718	6,846
November	6,718	6,829
December	6,761	6,831

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

The total remuneration paid to employees during the year was K1,182,639,606 (2021: K1,019,754,960).

## REPORT OF THE DIRECTORS (CONTINUED)

### HEALTH AND SAFETY OF EMPLOYEES

The Group operates an integrated Safety, Health, Environment and Quality system called SHEQ Management System based on, but not limited to, the requirements of ISO 9001, ISO 14001, ISO 45001 and ISO 27001 international standards.

The Groups' commitment to safety, health, environment and quality and information security is achieved through:

- Ensuring that operations are safe by minimising risk and eliminating harm to employees, contractors, visitors and customers;
- Establishing and reviewing of Safety, Healthy, Environment, Quality, Health and Information Security Objectives;
- Ensuring increased access to reliable and safe supply of electricity that sustains business continuity;
- Ensuring a secure and robust cyberspace through confidentiality, integrity and availability of all information;
- Ensuring environmental sustainability through infrastructure development and operations;
- Ensuring effective and efficient communication with all stakeholders on matters relating to service provision;
- Ensuring consistent provision of resources, training, equipment and other support systems to enable fulfilment of this policy;
- Ensure compliance to statutory and other requirements;
- Ensuring consultation and participation of workers and their representatives; and
- Ensuring continual improvement of SHEQ management systems.

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

### LOANS TO MANAGEMENT

The loans given or outstanding from Management as at 31 December 2022 was K1.9 million (2021: K3.5 million).

### KEY DEVELOPMENTS DURING THE YEAR

During the year under review the construction of 750 MW Kafue Gorge Lower Hydropower progressed well with the completion of the fourth generator bringing the installed capacity to 600 MW. The fifth generator was commissioned during the first half of 2023.

During the year, the Kwacha depreciated by 8% against the US dollar resulting in net exchange losses arising from the revaluation of the foreign denominated liabilities and assets held in foreign currency.

The long outstanding issue of the 2014 disputed tariff adjustment for mining customers announced by the Energy Regulation Board was resolved through a consent judgement involving all concerned parties.

## REPORT OF THE DIRECTORS (CONTINUED)

### KEY DEVELOPMENTS DURING THE YEAR (continued)

The Group reduced the new connection backlog on electricity applications from over 60,000 at the beginning of 2022 to 13,564 at the close of 2022 for both standard and non-standard jobs.

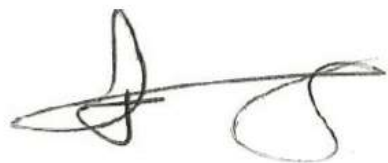
The Energy Regulation Board approved an upward adjustment in standard customer connection fees effective January 2023. Customer connections fees were last revised in 2005.

The Company concluded tariff renegotiations with Maamba Collieries and the revised tariffs were implemented in June 2022.

### AUDITORS

Messrs Grant Thornton were appointed as Auditors for 2022 financial year. A resolution proposing their re- appointment as auditors and authorising the Directors to fix their remuneration will be put to the Annual General Meeting.

By order of the Board.



Mrs. Matembo Lisimba

**GROUP COMPANY SECRETARY**

**Lusaka**

**Date: 4th March 2024**

# STATEMENT ON CORPORATE GOVERNANCE

- 1 The Company subscribes to tenets of good corporate governance. ZESCO's mandate, structure and operations are primarily premised on the Electricity Act No. 11 of 2019 and its subsequent amendments thereof, and other applicable laws. ZESCO has in place various policies, structures, and procedures to ensure that the decision-making process, governance and administration of the institution are in accordance with applicable laws and good corporate governance practices.
- 2 The Company is governed by a Board of Directors, comprising Seven (7) members, who are appointed by the Industrial Development Corporation (IDC). The Board of Directors are drawn from the industry and professional bodies.
- 3 Following the dissolution of the previous Board of Directors in October 2021, the new Board was appointed by the IDC. The Board has seven (7) Directors, comprising of two (2) females and five (5) males. The Board provides oversight over the operations of the Entity in line with its statutory mandate and the Board Charter which is reviewed regularly. The Board also appoints the Managing Director in consultation with IDC. The Managing Director is responsible for the day-to-day management of the Company. The Office of the Company Secretary acts as a central point of advice to the Directors on governance issues and processes relating to the Entity's operations. All Directors and Committee Members have access to the Company Secretary.
- 4 The Board meets regularly to review the performance of the Company and provide guidance to Management. Every year, a Schedule of Board Meetings is agreed to assist members plan for attendance. However, Special meetings are arranged to cater for urgent and time bound business.
- 5 During the year under review a total of nine (9) meetings were held. Out of the nine (09) meetings held, four (04) were scheduled and the remainder of five (5) were Special meetings.
- 6 The Board's key focus areas are summarised as follows:
  - a) Strategy
  - b) Corporate Governance
  - c) Financial Performance
  - d) Risk Management
- 7 The proceedings of the meetings were duly recorded, and minutes were signed after confirmation by the Directors.



## STATEMENT ON CORPORATE GOVERNANCE

### Board Committees

- 8 The Board has powers to delegate its functions to its committees and management to assist it discharge its mandate. There are currently five (5) Board Committees, namely, the Audit and Risk Committee, Investments and Finance Committee, Technical Committee, Corporate Support Services and Legal Committee, and the Human Capital and Development Committee. The Board has powers to appoint to the Committees external subject matter experts to ensure the right balance of skills and knowledge is brought to bear into its decision-making processes for the benefit of the institution. The Committees are chaired by a Board member meeting requisite skill and experience in line with the mandate of the Committee.

### Audit and Risk Committee

- 9 The Audit and Risk Committee, as recognised in Section 19 of the Public Finance Management Act, No. 1 of 2018, oversees financial reporting, risk management and compliance for the Company.
- 10 The Committee is comprised of the following Members:
- a) Ms. Edinah Mudenda
  - b) Eng. Charles Kaisala
  - c) Ms. Milangu Kampata
  - d) Mr. Millen Siamuyoba
  - e) Mr. Emmanuel Mbambiko
- 11 During the year, the Committee met seven (7) times to consider audit, risk and compliance matters and make appropriate recommendations to the Board.

### Investments and Finance Committee

- 12 The Investments and Finance Committee oversees investment performance and management to ensure prudent management of assets and maximisation of returns.
- 13 The Committee is comprised of the following Members:
- a) Mr. Emmanuel Gardner
  - b) Dr. Stephen Mpembele
  - c) Mr. Stein Liyanda
  - d) Ms. Charlene Bangwe
  - e) Ms. Chikonjiwe D Mumba
  - f) Eng. Victor B. Mapani
- 14 The Committee met five (5) times to review the Entity's financial performance, consider investment proposals, make investment decisions, and propose appropriate recommendations to the Entity.

### Technical Committee

- 15 The Technical Committee's main mandate is to assist the Board of Directors discharge its statutory obligations in relation to Planning of Energy Projects, Generation, Transmission, and Distribution of Energy to Customers.

## STATEMENT ON CORPORATE GOVERNANCE (CONTINUED)

### Technical Committee (continued)

16. The Committee is comprised of the following Members:
- a) Eng. Charles Kaisala
  - b) Mr. Chibulu A. Musonda
  - c) Mr. Crispin Munyati
  - d) Mr. Emmanuel Gardner
  - e) Eng. Victor B. Mapani
17. The Committee met four (4) times in 2022 to consider matters relating to Technical operations and make appropriate recommendations to the Board

### Human Capital and Development Committee

18. The Committee's key function is to oversee staff wellbeing and performance to ensure optimal overall organisation performance.
19. The Human Capital and Development Committee is comprised of the following Members:
- a) Ms. Chikonjiwe D Mumba
  - b) Dr. Jolly Kamwanga
  - c) Ms. Claire Limbwambwa
  - d) Ms. Beatrice H Malonda
  - e) Eng. Victor B. Mapani
20. The Committee met nine (9) times in 2022 to consider matters pertaining to staff and make appropriate recommendations to the Board.

### Corporate Support Services and Legal Committee.

21. The Committee's key function is to oversee Governance and Support functions to ensure Compliance and overall organisation performance.
22. The Committee comprises the following members:
- a) Dr. Jolly Kamwanga
  - b) Ms. Edinah Mudenda
  - c) Ms. Monica Chisela
  - d) Ms. Gertrude Musyani
  - e) Eng. Victor B. Mapani
23. The Committee met four (4) times in 2022 to consider matters pertaining to Corporate Governance and Support Services and make appropriate recommendations to the Board.

## STATEMENT ON CORPORATE GOVERNANCE (CONTINUED)

### Attendance of meetings

24 The attendance of meetings by Board Directors and Committee Members is shown in the table below:

### Attendance of Meetings

	Board Meetings			Committee Meetings		
	Scheduled Meetings	Special Meetings	Meetings Attended	Scheduled Meetings	Special Meeting	Meetings Attended
<b>Board</b>						
Mr. Vickson Ncube - Chairman	4	5	9			
Eng. Victor B Mapani - MD	4	5	9			
Ms. Edinah M Mudenda	4	5				
Dr. Jolly Kamwanga	4	5				
Eng. Charles Kaisala	4	5				
Ms. Chikonjiwe D Mumba	4	5				
Mr. Emmanuel Gardner	4	5				
<b>Finance and Investment Committee</b>						
Mr. Emmanuel Gardner				4		
Ms. Chikonjiwe D. Mumba				4		
Dr. Stephen Mpembele				4		
Ms. Charlene Bangwe				4		
Mr. Stein Liyanda				4		
Eng. Victor B Mapani				4		
<b>Audit and Risk Committee</b>						
Ms. Edinah Mudenda				7		7
Mr. Charles Kaisala				7		7
Mr. Millen Siamuyoba				7		7
Ms. Milangu Kampata				7		7
Mr. Emmanuel Mbambiko				7		7
<b>Human Capital and Development Committee</b>						
Ms. Chikonjiwe D. Mumba				4	1	5
Dr. Jolly Kamwanga				4	1	5
Ms. Claire Limbwambwa				4	1	5
Ms. Beatrice H. Malonda				4	1	5
Eng. Victor B. Mapani				4	1	5

## STATEMENT ON CORPORATE GOVERNANCE (CONTINUED)

### Attendance of meetings (continued)

24 The attendance of meetings by Board Directors and Committee Members is shown in the table below:

	Board Meetings			Committee Meetings		
	Scheduled Meetings	Special Meetings	Meetings Attended	Scheduled Meetings	Special Meeting	Meetings Attended
<b>Technical Committee</b>						
Eng. Charles Kaisala				4		4
Mr. Emmanuel Gardner				4		4
Mr. Crispin Munyati				4		4
Mr. Chibulu A. Musonda				4		4
Eng. Victor B. Mapani				4		4
<b>Corporate Support Services and Legal</b>						
Dr. Jolly Kamwanga				4		4
Ms. Edinah Mudenda				4		4
Ms. Monica Chisela				4		4
Ms. Gertrude Musyani				4		4
Eng. Victor B. Mapani				4		4

## 25 Board Induction and Continued Development

- 25.1 The Entity has in place a comprehensive induction process for new Directors and Committee members as and when they join the Board. The induction process takes the form of presentations from executives and functional heads. The Entity also endeavours to expose Directors to specific tailored training in energy generation, transmission and distribution and good corporate governance during the tenure of their office in order to better equip them to discharge their functions. The new Board and Committee members were appropriately inducted and orientated upon their appointment.
- 25.2 Further, the Entity recognises the importance of Directors' continued understanding of the changing regulatory environment in the energy industry and their role as fiduciaries. Arrangements for training, exposure to new developments and benchmarking with peer institutions are regularly made for Directors' continued learning and development. These training and development activities usually focus on areas such as strategy, corporate governance, risk management and investments.

## 26 Board Performance Evaluation

- 26.1 The Entity also conducts performance evaluations of the Board, and its Committees in order to enhance Board effectiveness.
- 26.2 A Board evaluation exercise is planned to be undertaken in 2024.



## STATEMENT ON CORPORATE GOVERNANCE (CONTINUED)

### 27 Board Remuneration

- 27.1 Board of Directors and Committee Members are remunerated for services rendered to the Company through sitting allowances and quarterly retainer fees. The Board is empowered by law to set its remuneration, which is subject to approval by IDC. Before Directors' remuneration is reviewed upward, surveys are conducted with peer institutions within the Public Sector for comparison. If deemed appropriate, the Human Capital and Development Committee makes recommendations for review of Board remuneration.
- 27.3 Details of the total remuneration and board expenditure is provided in note 30 "Related Party Transactions" of the audited financial statements.

### 28 Senior Management

- 28.1 The Board of Directors has within the provisions of Articles of Association delegated the day-to-day administration of the Company to the Managing Director, who is the Chief Executive Officer of the Entity.
- 28.2 Senior Management is comprised of the Managing Director, supported by eight Directors who each heads a Directorate.
- 28.3 There is open communication between the Board of Directors and Senior Management. The Board and its Committees are supplied with full information prior to each meeting to enable them discharge their responsibilities.
- 28.4 The Board understands the relationship between itself and the members of Management. It acknowledges that its role is to promote the interest of the public and the shareholders and recognises that it is accountable to the public and the shareholders for the performance

## 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. In preparing such financial statements, the directors are responsible for:

- designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement whether due to fraud or error;
- selecting appropriate accounting policies and applying them consistently;
- making judgements and accounting estimates that are reasonable in the circumstances; and
- preparing the financial statements in accordance with the applicable financial reporting framework, and on the going concern basis unless it is inappropriate to presume that the Group will continue in business.

The directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Group and enable them to ensure that the financial statements comply with the Zambian Companies Act 2017. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors confirm that in their opinion

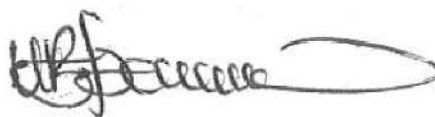
- (a) the financial statements give a true and fair view of the financial position of ZESCO and its subsidiaries as at 31 December 2022, and of its financial performance and its cash flows for the year then ended;
- (b) at the date of this statement there are reasonable grounds to believe that the Group will be able to pay its debts as and when these falls due; and
- (c) the financial statements are drawn up in accordance with the provisions of section 265 of the Companies Act and International Financial Reporting Standards.

This statement is made in accordance with a resolution of the directors.

Signed at **Lusaka** on **4th March 2024**



**Mr. Vickson Ncube**  
**CHAIRMAN**



**Eng. Victor B Mapani**  
**MANAGING DIRECTOR**

# INDEPENDENT AUDITOR'S REPORT

## TO THE MEMBERS OF ZESCO LIMITED

### Report on the Audit of the Group and Company Annual Financial Statements

#### Qualified Opinion

We have audited the financial statements of ZESCO (The Company) and its subsidiaries (The group), which comprise the consolidated and separate statement of financial position as at 31 December 2022, and the consolidated and separate statement of profit or loss and other comprehensive income, the consolidated and separate statement of changes in equity and the consolidated and separate statement of cash flows for the year then ended, notes to the financial statements, including a summary of significant accounting policies.

In our opinion, except for the effects of the matter described in the Basis for Qualified Opinion section of our report, the accompanying group and company financial statements give a true and fair view of the group and company financial position of ZESCO as at 31 December 2022, and of its consolidated and company financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards and the requirements of the Companies Act.

#### Basis for Qualified Opinion

1. There is no assessment of the carrying value of property plant and equipment included in the statement of financial position at K83,161,539,000. The last valuation was done as at 31 December 2017. We were unable to determine whether any impairment adjustments were necessary.

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZESCO LIMITED

### Basis for Qualified Opinion (continued)

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We are independent of the Group and Company in accordance with the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) the (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial statements in Zambia and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained was sufficient and appropriate to provide a basis for our qualified opinion.

### Material uncertainty related to going concern

We draw attention to note 29 in the financial statements which indicates that the Group made a loss after tax of K1.4 billion (2021: profit of K10.4 billion) and current liabilities exceeded its current assets by K29.8 billion (2021: K29.0 billion) and at the reporting date the Group had negative retained earnings of K10.1 billion (2021 K9.4 billion) At the reporting date, the total borrowings amounted to K36.60 billion (2021: K35.1 billion) on which some of the loan covenants were breached. Government of the Republic of Zambia has issued a formal letter of support to the Group. These conditions indicate the existence of a material uncertainty which may cast doubt about the Group's ability to continue as a going concern. Our opinion is not further modified in respect of this matter.

### Key audit matters

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



## Key audit matters (continued)

Key audit matters	How the matter was addressed in our audit
<p>Measurement of financial assets</p> <p>Due to the complex and subjective nature of judgements made in the assumptions by the Directors over the measurement of financial assets this was considered a key audit matter.</p> <ul style="list-style-type: none"> <li>The Directors are required to apply the forward-looking approach to recognize expected credit losses based on IFRS 9's impairment requirements.</li> <li>Further, in assessing the fair value of financial assets, the Directors use a variety of valuation methods based on the classification of assets and make assumptions that are based on market conditions and other relevant valuation data existing at each reporting date.</li> </ul> <p><b>Long service retirement benefit</b></p> <p>The Group operates an unfunded long-term service retirement benefit plan. Under the terms of employment, qualifying employees are entitled to post-employment benefits. The benefits are defined benefit in nature based on the members' length of service and their salary at the earlier of retirement or death or termination from employment (the Employer) meets benefit costs as they fall due.</p>	<p>Our procedures included but were not limited to the following:</p> <ul style="list-style-type: none"> <li>Assessing the design and implementation of the impairment model adopted with focus on compliance with the requirements of IFRS 9: "Financial Instruments".</li> <li>Reviewing management's evaluation of possible outcomes and the probability of occurrence.</li> <li>Checking the reasonableness of the information and ensuring the information was supported with reference to past events, current conditions as well as forecast of the future.</li> <li>We obtained the analysis prepared by management in calculating the fair value of the assets.</li> <li>We evaluated management's valuation assumptions and changes in assumptions to ensure they were reasonable and consistent with market information and other relevant valuation data.</li> <li>Performed audit procedures over the valuation and accounting of investments in financial assets, to ensure that the valuation inputs applied to various valuation techniques were reasonable.</li> </ul> <p>In considering the actuarial valuation of pension obligations, we performed the following procedures:</p> <ul style="list-style-type: none"> <li>Obtained the actuarial report based on 31 December 2022 numbers.</li> </ul>

## Key audit matters (continued)

Key audit matters	How the matter was addressed in our audit
<p>The assumptions that underpin the valuation of the defined benefit pension assets and liabilities are important, and also subjective, judgements as to the surplus/deficit balance is volatile and affects the Group's retained earnings.</p> <p>Uncertainty arises as a result of estimates made based on the Group's expectations about long-term trends and market conditions. As a result, the actual surplus or deficit realized by the Group may be significantly different to that recognized on the statement of financial position since small changes to the assumptions used in the calculation materially affect the valuation.</p> <p>Key assumptions that are involved in the calculation of the defined benefit obligation as per note 23 to the financial statements are:</p> <ul style="list-style-type: none"> <li>• Discount rate; and</li> <li>• Expected rate of salary increment.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewed the valuation in relation to IAS 19 requirements.</li> <li>• Reviewed key inputs used within the report as well as challenged key assumptions made.</li> <li>• Performed a retrospective review to assess obligation for reasonableness.</li> <li>• Compared the discount rates used to Government Bond yield rates available with the Bank of Zambia.</li> <li>• We reviewed the level of salary increment considered by the Group for 2023 and projections for the future.</li> </ul>

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZESCO LIMITED

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

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in 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 and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards and in the manner required by the Companies Act, 2017 and for such internal control as the Directors determine is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

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

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZESCO LIMITED

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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 auditor's 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 of business activities within the group to express an opinion on the consolidated 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.

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

From the matters communicated with the Directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matters or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.



## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF ZESCO LIMITED

### Report on other legal and regulatory requirements

The Companies Act, 2017 requires that in carrying out our audit of ZESCO Limited and its subsidiaries, we report on whether:

- There is a relationship, interest or debt which we as the Group's auditors have in the Group;
- There are serious breaches by the Group's Directors of the corporate governance principles or practices contained in Part VII sections 82 to 112 of the Companies Act, 2017; and
- There is an omission in the financial statements as regards particulars of loans made to a Group officer (a director, Group secretary or executive officer of a Group) during the year, and if reasonably possible, disclose such information in our opinion.

In respect of the foregoing requirements, we have no matters to report.



### Chartered Accountants



**Edgar Hamuwele (AUD/F000111)**

**Name of Partner signing on behalf of the firm**

**Lusaka**

**Date: 4th March 2024**

# CONSOLIDATED AND SEPARATE STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2022

		Group		Company	
		2022	2021	2022	2021
	NOTES	K'000	K'000	K'000	K'000
<b>REVENUE</b>	5	20,549,054	22,002,025	20,445,248	21,897,616
	6				
Cost of sales		(8,890,213)	(9,137,685)	(11,904,858)	(9,914,063)
<b>GROSS PROFIT</b>		11,658,841	12,864,340	8,540,390	11,983,553
Other operating income	7	458,743	811,307	457,199	859,616
Other (losses)/gains	8	(5,958,997)	8,745,791	(4,748,991)	7,505,883
Selling and distribution expenses		(12,891)	(8,719)	(12,671)	(8,144)
Administration expenses		(3,427,046)	(4,970,506)	(3,009,897)	(4,847,689)
Other expenses	9	(2,264,882)	(5,729,254)	(2,227,731)	(6,001,898)
Finance costs	10	(1,824,600)	(963,839)	(918,553)	(874,971)
Share of profit/(loss) of associates	17.1	6,581	(25,836)	-	-
Share of profit/(loss) of a joint venture	17.1	5,865	(25,561)	-	-
<b>(LOSS)/PROFIT BEFORE TAX</b>		(1,358,386)	10,697,723	(1,920,255)	8,616,350
Income tax charge	12	(25,735)	(253,970)	(35,412)	(33,922)
<b>(LOSS)/PROFIT FOR THE YEAR</b>		(1,384,121)	10,443,753	(1,955,666)	8,582,428
<b>OTHER COMPREHENSIVE INCOME</b>					
<b>Items that will not be reclassified subsequently to profit or loss:</b>					
Change in defined benefit obligation	23	-	-	-	-
Other comprehensive income for the year, net of income tax		-	-	-	-
<b>TOTAL COMPREHENSIVE (LOSS)/PROFIT FOR THE YEAR</b>		<b>(1,384,121)</b>	<b>10,443,753</b>	<b>(1,955,666)</b>	<b>8,582,428</b>

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2022

### Group

	Share capital	Revaluation reserve	Retained earnings/ Accumulated losses	Total
	K'000	K'000	K'000	K'000
<b>Balance at 1 January 2021</b>	<b>2,825,118</b>	<b>12,550,273</b>	<b>(12,120,269)</b>	<b>3,255,122</b>
Other comprehensive income for year	-	-	10,443,753	10,443,753
Deferred tax derecognised (i)	-	8,369,121	(8,369,121)	-
Amortisation of revaluation reserve	-	(675,155)	675,155	-
<b>Balance at 31 December 2021</b>	<b>2,825,118</b>	<b>20,244,239</b>	<b>(9,370,482)</b>	<b>13,698,875</b>
Other comprehensive income for year				
Loss for the year	-	-	(1,384,121)	(1,384,121)
Amortisation of revaluation reserve	-	(673,936)	673,936	-
<b>Balance at 31 December 2022</b>	<b>2,825,118</b>	<b>19,570,303</b>	<b>(10,080,667)</b>	<b>12,314,754</b>

### Company

	Share Capital	Revaluation Reserve	Retained earnings/ Accumulated losses	Total
	K'000	K'000	K'000	K'000
<b>Balance at 1 January 2021</b>	<b>2,825,118</b>	<b>12,549,054</b>	<b>(9,430,300)</b>	<b>5,943,872</b>
Profit for the year	-	-	8,582,428	8,582,428
Other comprehensive income for the year				
Transfer Fibrecom	-	-	(14,871)	(14,871)
Deferred tax derecognised	-	8,369,121	(8,369,121)	-
Amortisation of revaluation	-	(673,936)	673,936	-
<b>Balance at 31 December 2021</b>	<b>2,825,118</b>	<b>20,244,239</b>	<b>(8,557,928)</b>	<b>14,511,429</b>
Loss for the year	-	-	(1,955,666)	(1,955,666)
Amortisation of revaluation reserve	-	(673,936)	673,936	-
<b>Balance at 31 December 2022</b>	<b>2,825,118</b>	<b>19,570,303</b>	<b>(9,839,657)</b>	<b>12,555,764</b>

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2022

		Group		Company	
		2022	2021	2022	2021
	Notes	K'000	K'000	K'000	K'000
<b>ASSETS</b>					
<b>Non-current assets</b>					
Property, plant and equipment	14	83,161,539	81,592,217	51,273,033	50,917,488
Intangible assets	15	211,724	75,392	211,360	75,301
Right of use assets	16	19,245	16,882	14,730	14,745
Investments in associates	17.1	56,572	49,991	15,175,221	12,817,156
Investments in a joint venture	17.1	(23,946)	228,347	-	-
Deferred tax asset		<u>159,378</u>	<u>149,640</u>	<u>-</u>	<u>-</u>
<b>Total non-current assets</b>		<b>83,584,512</b>	<b>82,112,469</b>	<b>66,674,344</b>	<b>63,824,690</b>
<b>Current assets</b>					
Inventories	18	1,234,938	873,463	1,074,290	733,982
Trade and other receivables	19	2,624,710	2,124,590	2,631,016	1,995,373
Amounts due from related parties	21	3,624,386	3,876,886	3,735,656	3,908,345
Cash and bank balances		<u>3,856,846</u>	<u>2,985,177</u>	<u>3,122,746</u>	<u>2,321,959</u>
<b>Total current assets</b>		<b>11,340,880</b>	<b>9,860,116</b>	<b>10,563,708</b>	<b>8,959,659</b>
<b>TOTAL ASSETS</b>		<b>94,925,392</b>	<b>91,972,585</b>	<b>77,238,052</b>	<b>72,784,349</b>
<b>EQUITY AND RESERVES</b>					
<b>Capital and reserves</b>					
Issued capital	20	2,825,118	2,825,118	2,825,118	2,825,118
Revaluation reserve		19,570,303	20,244,239	19,570,303	20,244,239
Accumulated losses		<u>(10,080,667)</u>	<u>(9,370,483)</u>	<u>(9,839,657)</u>	<u>(8,557,928)</u>
<b>Total equity</b>		<b>12,314,754</b>	<b>13,698,874</b>	<b>12,555,764</b>	<b>14,511,429</b>
<b>Non-current liabilities</b>					
Borrowings	22	34,940,645	33,318,258	17,948,910	17,670,900
Retirement benefit obligations	23	3,560,335	3,066,379	1,891,237	3,066,379
Capital grants and contributions	24	3,131,066	2,997,100	3,094,076	2,997,100
Lease liabilities	28	<u>16,174</u>	<u>14,929</u>	<u>10,776</u>	<u>14,539</u>
<b>Total non-current liabilities</b>		<b>41,648,220</b>	<b>39,396,666</b>	<b>22,944,999</b>	<b>23,748,918</b>



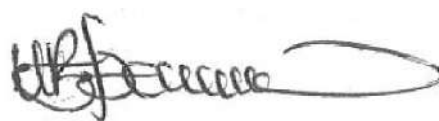
## CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2022 (CONTINUED)

		Group		Company	
		2022	2021	2022	2021
	Notes	K'000	K'000	K'000	K'000
<b>Current liabilities</b>					
Trade and other payables	25	26,142,891	25,642,769	21,480,246	20,176,070
Amounts due to related parties	21	11,845,201	9,811,043	16,929,199	10,564,868
Borrowings	22	1,672,376	1,775,268	2,041,130	2,157,293
Retirement benefit obligations	23	164,503	178,335	162,628	176,460
Capital grants and contributions	24	138,301	133,966	138,301	133,966
Current tax liabilities	12	961,015	1,312,980	947,655	1,299,634
Lease liabilities	28	15,711	22,684	15,711	15,711
Bank overdraft	26	<u>22,419</u>	<u>-</u>	<u>22,419</u>	<u>-</u>
<b>Total current liabilities</b>		<b><u>40,962,417</u></b>	<b><u>38,877,045</u></b>	<b><u>41,737,289</u></b>	<b><u>34,524,002</u></b>
<b>Total liabilities</b>		<b><u>82,610,637</u></b>	<b><u>78,273,711</u></b>	<b><u>64,682,288</u></b>	<b><u>58,272,920</u></b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b><u>94,925,392</u></b>	<b><u>91,972,585</u></b>	<b><u>77,238,052</u></b>	<b><u>72,784,349</u></b>

The responsibilities of the Directors with regard to the preparation of the financial statements are set out on page 5. The financial statements on pages 13 to 102 were approved by the Board of Directors and authorised for issue on ..... and were signed on its behalf by:



**Mr. Vickson Ncube**  
**CHAIRMAN**



**Eng. Victor B Mapani**  
**MANAGING DIRECTOR**

## CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2022

		Group		Company	
		2022	2021	2022	2021
CASH FLOWS FROM OPERATING ACTIVITIES	Notes	K'000	K'000	K'000	K'000
(Loss)/Profit for the year		(1,358,386)	10,697,723	(1,920,255)	8,616,350
<b>Adjustments for:</b>					
- Share of (loss)/profit of associates	17.2 (iii)	(6,581)	25,836	-	-
- Share of loss/(profit) of joint venture	17.2 (i)	(1,615)	25,561	-	-
- Interest income	7	(18,166)	(1,466)	(18,166)	(1,380)
- Finance costs recognised in profit or loss	10	-	-	918,553	-
- Net exchange (loss)/gains recognised on borrowings	22	1,357,648	(9,958,658)	1,471,040	(5,699,555)
- Loss on transfer of assets to Fibrecom		-	-	567	11,439
- Net exchange losses on work in progress		-	3,638,397	-	-
- Loss on disposal of property, plant and equipment		(21,971)	4,293	21,157	2,787
- Depreciation of non-current assets	14	2,158,748	1,974,356	1,917,773	1,910,356
- Adjustments on assets	14	239,977	-	-	-
- Capitalised depreciation	14	(198)	(582)	-	-
- Amortisation of intangible assets	15	24,899	10,465	25,171	10,429
- Depreciation on right of use assets	16	(4,979)	8,080	(62)	2,854
- Impairment of investments	17	253,908	(253,908)	-	-
- Amortisation of capital grants and Contributions	24	(213,670)	(196,677)	(213,670)	(196,677)
- Impairment loss recognised on trade Receivables	19	(5,823,193)	2,759,434	(5,754,331)	2,690,572
- Impairment loss recognised on amounts due from related parties		359,523	(142,257)	359,523	(142,257)
- Impairment loss recognised on other Receivables	19	(152,491)	(12,210)	(152,491)	(12,210)
- Dividends received		-	-	(28,973)	-
- Impairment reversal recognised on other receivables	19	36,935	36,935	-	36,935
- Unrealised exchange gains		(104,469)	(104,469)	-	-
		<b>(1,296,990)</b>	<b>9,474,692</b>	<b>(3,373,916)</b>	<b>8,104,614</b>
<b>Movements in working capital</b>					
Increase in inventory		(361,475)	(99,565)	(340,308)	(29,301)
Decrease/(increase) in trade and other receivables		5,475,564	(659,594)	5,271,179	(480,041)
(Increase)/decrease in amounts due from related parties		(107,023)	1,243,240	(186,834)	1,218,084
(Increase)/decrease in trade and other payables		500,122	(5,286,299)	1,304,176	(3,518,730)
Increase in deferred liabilities		480,124	1,154,676	(1,188,974)	1,152,801
Increase in amounts due to related parties		2,034,158	136,724	6,364,331	207,285

Decrease in borrowings due from related party		-	-	5,593	-
<b>Cash generated from operations</b>		<u>6,535,054</u>	<u>5,963,874</u>	<u>7,855,247</u>	<u>6,654,712</u>
Interest paid	10	(1,824,600)	(963,839)	(918,553)	(874,971)
Income taxes paid	12	<u>(387,434)</u>	<u>(407,243)</u>	<u>(387,391)</u>	<u>(407,122)</u>
<b>Net cash generated by operating activities</b>		<u>4,323,020</u>	<u>4,592,792</u>	<u>6,549,303</u>	<u>5,372,619</u>

		Group		Company	
		2022	2021	2022	2021
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>	Notes	K'000	K'000	K'000	K'000
Proceeds from disposal of property, plant and equipment		3,592	447	3,347	447
Payments for property, plant and equipment	14	(3,903,050)	(4,877,861)	(2,298,635)	(3,505,304)
Payments for intangible assets	15	(161,231)	(1,184)	(161,231)	(1,167)
Payment to acquire investments		-	-	(2,358,065)	(2,328,818)
Right of use asset addition		-	(16,952)	28,973	-
Interest received	7	<u>18,166</u>	<u>1,466</u>	<u>18,166</u>	<u>1,380</u>
<b>Net cash used in investing activities</b>		<u>(4,042,523)</u>	<u>(4,894,085)</u>	<u>(4,767,445)</u>	<u>(5,833,462)</u>

<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>					
Repayment of borrowings	22	(2,175,442)	(4,189,345)	(2,175,442)	(3,329,549)
Additions/(repayment) of lease liabilities	28	(12,544)	21,160	<u>(9,278)</u>	(9,153)
Proceeds from capital grants and contributions	24	314,981	447,638	314,981	447,638
Proceeds from borrowings	22	<u>2,337,289</u>	<u>2,559,816</u>	<u>(9,278)</u>	<u>2,601,997</u>

<b>Net cash generated/(utilized) from/(in) financing activities</b>		<u>464,284</u>	<u>(1,160,731)</u>	<u>(1,003,490)</u>	<u>(289,067)</u>
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<b>Net increase/(decrease) in cash and cash equivalents</b>		744,781	(1,462,023)	778,368	(749,910)
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Cash and cash equivalents at the beginning of the year		2,985,177	4,342,731	2,321,959	3,071,869
Effect of foreign exchange rate changes		<u>104,469</u>	<u>104,469</u>	-	-

<b>Cash and cash equivalents at the end of the year</b>		<u>3,834,427</u>	<u>2,985,177</u>	<u>3,100,327</u>	<u>2,321,959</u>
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<b>COMPRISING OF:</b>					
Bank and cash balances*		3,856,846	2,985,177	3,122,746	2,321,959
Bank overdraft	26	<u>(22,419)</u>	-	<u>(22,419)</u>	-
		<u>3,834,427</u>	<u>2,985,177</u>	<u>3,100,327</u>	<u>2,321,959</u>

\*Included in bank and cash balances are restricted funds amounting to K2.5 billion, 2021 (K2.4 billion). The cash is held as part of Debt Security Reserves.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2022

## 1. Principal activities

The principal activities of the Group continued to be the generation, transmission, distribution and supply of electricity and provision of IP connectivity.

## 2. International Financial Report Standards (IFRS)

### a) Basis of consolidation

The Group's financial statements consolidate those of the parent company and all of its subsidiaries as of 31 December 2022. All subsidiaries have a reporting date of 31 December. All transactions and balances between Group companies are eliminated on consolidation, including unrealised gains and losses on transactions between Group companies. Where unrealised losses on intra-group asset sales are reversed on consolidation, the underlying asset is also tested for impairment from a Group perspective. Amounts reported in the financial statements of subsidiaries have been adjusted where necessary to ensure consistency with the accounting policies adopted by the Group. Profit or loss and other comprehensive income of subsidiaries acquired or disposed of during the year are recognised from the effective date of acquisition, or up to the effective date of disposal, as applicable. The Group attributes total comprehensive income or loss of subsidiaries between the owners of the parent and the non-controlling interests based on their respective ownership interests.

### b) Basis of preparation

The financial statements are prepared in accordance with the provisions of the Companies Act and International Financial Reporting Standards (IFRS). The financial statements are presented in accordance with IAS 1 "Preparation of financial statements" (Revised 2007). The Group has elected to present the "Statement of Comprehensive income" in one statement namely the "Statement of Comprehensive Income". IAS 1 also requires the presentation of a comparative statement of financial position and related notes at the beginning of the first comparative period. The financial statements have been prepared under the historic cost convention, as modified by the revaluation of property, plant and equipment, available-for-sale financial assets, and financial assets and liabilities at fair value through profit or loss.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in note 4.

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.



## 2. International Financial Report Standards (IFRS) (continued)

### b) Basis of preparation (continued)

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

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

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

### (c) New Standards and amendments that are effective at 1 January 2021 and are applicable to the Group

- COVID-19-related rent concessions beyond 30 June 2021 (Amendments to IFRS 16)
- Interest Rate Benchmark Reform Phase 2 (Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16)<sup>1</sup>.

These amendments do not have a significant impact on these Financial Statements and therefore the disclosures have not been made.

### (d) Standards, amendments and Interpretations to existing Standards that are not yet effective and have not been adopted early by the Group

- IFRS 17 Insurance Contracts
- Amendments to IFRS 17 Insurance Contracts (Amendments to IFRS 17 and IFRS

### 4)

- References to the Conceptual Framework
- Proceeds before Intended Use (Amendments to IAS 16)
- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)
- Annual Improvements to IFRS Standards 2018-2020 Cycle (Amendments to IFRS 1, IFRS 9, IFRS 16, IAS 41)
- Classification of Liabilities as Current or Non-current (Amendments to IAS 1)
- Deferred Tax related to Assets and Liabilities from a Single Transaction.

These amendments are not expected to have a significant impact on the financial statements in the period of initial application and therefore no disclosures have been made.

Management anticipates that all relevant pronouncements will be adopted for the first period beginning on or after the effective date of the pronouncement. New Standards, amendments and Interpretations not adopted in the current year have not been disclosed as they are not expected to have a material impact on the Group's financial statements.

### 3. Significant accounting policies

#### a) Statement of compliance

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

#### b) 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 Group'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 and supply of internet and leased circuit.

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 and 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.

#### (c) 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 (Bulk supply of electricity) 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.

The sale of energy to customers in the foreign countries and Zambia bought from utilities in the Southern Africa Power Pool (SAPP) is known as power trading.

### 3. Significant accounting policies (continued)

#### d) 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.

#### e) Rental income

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

#### f) Fibre income

Fibre income is recognised on the accrual basis in accordance with the substance of the agreement. Connection fees are deferred over the useful life of the fibrecom assets through Income Statement. Access charges are recognised in the period to which it relates. This income was transferred from ZESCO to the subsidiary, Fibrecom Limited in 2021.

#### g) 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.

#### h) Foreign currencies

In preparing the financial statements of the entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

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

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

#### i) 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 financial period in which they are incurred.

### 3. Significant accounting policies (continued)

#### j) 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.

#### k) 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 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.



### 3. Significant accounting policies (continued)

#### k) Taxation (continued)

##### (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.

#### l) Property, plant and equipment

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

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

Generation, Transmission and Distribution Systems:

Dams, tunnels, power houses and other civil structures	60 years
Generators, Turbines, Transformers and Towers	40 years
Transmission and distribution systems	25 - 50 years

Other Assets:

Buildings - Roads, Workshops, Offices and Houses	30-50 years
Furniture, Vehicles and IT	3 - 15 years

Capital work in progress is not depreciated

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

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Cost includes professional fees and, for qualifying assets, borrowing costs capitalised in accordance with the 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 2021 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.

### 3. Significant accounting policies (continued)

#### l) Property, plant and equipment (continued)

An item of property, plant 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.

#### m) Leases

At inception of a contract, the Group assesses a contract as, or containing, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group assesses whether the contract involves the use of an identified asset, the Group has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and the Group has the right to direct the use of the asset.

##### i) Group as a lessee

On initial application of IFRS 16, the Group recognised a lease liability measured at the present value of all the remaining lease payments, discounted using the lessee's incremental borrowing rate at 1 January 2019 whereas the Group has elected to measure right-of-use asset at its carrying amount as if IFRS 16 had been applied since the lease commencement date, but discounted using the lessee's incremental borrowing rate at 1 January 2019. The Group has elected not to recognise a lease liability and a right-of-use asset for leases for which the lease term ends within twelve months of 1 January 2019 and has accounted for these leases as short-term leases.

For new lease contracts, the Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee in the statement of financial position. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate. Lease liabilities include the net present value of fixed payments (including in-substance fixed payments), variable lease payments that are based on consumer price index ('CPI'), the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

### 3. Significant accounting policies (continued)

#### m) Leases (continued)

The lease payments are discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate.

Subsequently, the lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments including due to changes in CPI or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or when the lease contract is modified and the lease modification is not accounted for as a separate lease. The corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the related right-of-use asset has been reduced to zero.

Right-of-use assets are measured at cost comprising the amount of the initial measurement of lease liability, any lease payments made at or before the commencement date less any lease incentives received, any initial direct costs, and restoration costs.

Subsequent to initial recognition, right-of-use assets are stated at cost less accumulated depreciation and any impairment losses and adjusted for certain remeasurements of the lease liability. Depreciation is computed using the straight-line method from the commencement date to the end of the useful life of the underlying asset or the end of the lease term, whichever is shorter. The estimated useful lives of right-of-use assets are determined on the same basis as those of the underlying property and equipment.

In the statement of financial position, the right-of-use assets and lease liabilities are presented separately. When a contract includes lease and non-lease components, the Group allocates the consideration in the contract on the basis of the relative stand-alone prices of each lease component and the aggregate stand-alone price of the non-lease components.

The Group has elected not to recognise right-of-use assets and lease liabilities for short term leases of machinery that have a lease term of 12 months or less and leases of low value assets. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

#### ii) Group as a lessor

Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Amounts due from lessees under a finance lease are recognised as receivables at an amount equal to the net investment in the leased assets. Finance lease income is allocated to the periods so as to reflect a constant periodic rate of return on the net investment outstanding in respect of the finance lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

When a contract includes lease and non-lease components, the Group applies IFRS 15 to allocate the consideration under the contract to each component.

### 3. Significant accounting policies (continued)

#### n) 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 lives. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

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

#### o) 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.

#### p) 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.

### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

##### i) 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.

##### ii) 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).

- ☐ 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.

##### (i) 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.



### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

#### ii) Classification of financial assets (continued)

##### (i) Amortised cost and effective interest method

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. 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.

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. 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.

Interest income is recognised using the effective interest method for debt instruments measured subsequently at amortised cost and at FVTOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset.

### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

##### ii) Classification of financial assets (continued)

###### Amortised cost and effective interest method

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.

##### iii) 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 investment's revaluation reserve;
- for equity instruments measured at FVTOCI, exchange differences are recognised in other comprehensive income in the investments revaluation reserve.

##### iv) 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.

### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

##### iv) Impairment of financial assets (continued)

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.

##### 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.

### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

Significant increase in credit risk

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.

#### v) 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.

#### (vi) 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.

### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

##### (vii) 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.

##### (viii) 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.

##### (ix) 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.



### 3. Significant accounting policies (continued)

#### p) Financial instruments (continued)

##### 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

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.

#### q) Investments

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

### 3. Significant accounting policies (continued)

#### q) Investments (continued)

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

#### r) 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 reporting 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.

#### s) 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.

### 3. Significant accounting policies (continued)

#### s) Retirement benefits and other employee benefits (continued)

##### (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 to long service termination benefits. The benefits are computed in accordance with accrued service period and the terminal pay. Provision is raised in profit or loss on a monthly basis.

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

##### (iv) Other entitlements

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

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

The preparation of financial statements in conformity with the Group's accounting policies which are described in note 3, requires the Directors 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. Critical accounting judgements and key sources of estimation uncertainty (continued)

##### a) Critical judgements in applying accounting policies

###### i) 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.

###### ii) Calculation of loss allowance

When measuring ECL the Group 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.

###### iii) Significant increase in credit risk

As explained in note 2, 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 Group takes into account qualitative and quantitative reasonable and supportable forward looking information.

###### iv) 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.

###### v) Capitalisation of borrowing costs

The Group capitalises borrowing costs directly attributable to the acquisition, construction or production of qualifying assets. Capitalisation of the borrowing costs relating to construction is suspended when the development is delayed as management reconsiders its detailed plans. Capitalisation of borrowing costs is recommenced at the resumption of the activities necessary to prepare the asset for its intended use.

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

##### a) Critical judgements in applying accounting policies (continued)

###### vi) Judgement in identifying whether a contract includes a lease

The directors of the Group assess whether or not the Group has contracted for the rights to use the identified assets and whether the contract conveys the right to control the use of the identified assets for a period of time in exchange for consideration. The directors concluded that the Group has contracted for the rights to use the identified assets and that the contract conveys the right to control the use of the identified assets for a period of time in exchange for consideration, therefore the contracts do contain lease.

##### b) 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.

###### i) 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 of the assets for the current or future periods.

###### ii) 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 Group. The Group's assessment of the Group's exposure to contingencies could change as new developments occur or more information becomes available.

###### iii) 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.



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

##### b) Key sources of estimation uncertainty (continued)

##### iv) 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.

##### v) Leases IFRS 16

In determining the right-of-use assets and lease liabilities a number of assumptions were made. The key assumptions include determining the Incremental Borrowing Rate which was used as discounting factor to determine the lease liability and interest expense.

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>5. Revenue</b>				
Arose from customers in the following sections:				
Mining	9,241,820	11,839,462	9,241,820	11,839,633
Exports	4,745,750	4,090,453	4,745,750	4,090,453
Residential	2,897,687	2,854,211	2,897,687	2,854,211
Industrial and agricultural	2,811,509	2,427,699	2,811,509	2,427,699
Commercial (retail outlets)	852,288	685,620	748,482	685,620
I P Connectivity	-	104,580	-	-
	<b>20,549,054</b>	<b>22,002,025</b>	<b>20,445,248</b>	<b>21,897,616</b>

##### 6. Cost of sales

Local purchases of power	6,055,845	5,793,346	9,261,020	6,692,226
Direct labour costs	1,121,812	1,016,724	1,121,812	993,222
Local wheeling charges	899,962	1,018,365	899,962	1,018,365
Maintenance costs	568,963	960,920	404,304	926,879
Power imports (internally financed)	26,961	31,708	26,961	31,708
Generation water usage & fuel costs	216,670	316,622	190,799	251,663
Export wheeling charges	-	-	-	-
	<b>8,890,213</b>	<b>9,137,685</b>	<b>11,904,858</b>	<b>9,914,063</b>

The Group continued to buy power from Independent Power Producers (IPPs) to supplement the internal power generation, which was reduced due to low water levels. The cost of IPPs was partially financed by the Government of the Republic of Zambia due to higher tariff of about USD 11/cents kWh, compared to the average selling price of USD 7.5/cents kWh.

The IPPs include Maamba Collieries Limited, Ndola Energy Company Limited and Itezhi Tezhi Power Corporation Limited whose average cost of power exceeds ZESCO's selling price to customers. During the year total disbursements from the Government of the Republic of Zambia was K 205 million (2021: K 160 million) towards power purchases.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>7. Other operating income</b>				
Wheeling income	44,869	130,737	44,869	130,737
Amortisation of capital grants and contributions (Note 24)	213,670	196,677	213,670	196,677
Interest on late payments	10,276	159,326	10,276	159,326
Interest income	18,166	1,466	18,166	1,380
Rental income	2,769	2,212	2,769	2,212
Sundry income	<u>168,993</u>	<u>320,889</u>	<u>167,449</u>	<u>369,284</u>
	<b><u>458,743</u></b>	<b><u>811,307</u></b>	<b><u>457,199</u></b>	<b><u>859,616</u></b>

### 8. Other gains/(losses)

Net exchange gains/(losses)	(5,937,026)	8,750,084	(4,727,020)	7,520,110
Loss on disposal of property, plant and equipment	<u>(21,971)</u>	<u>(4,293)</u>	<u>(21,971)</u>	<u>(14,227)</u>
	<b><u>(5,958,997)</u></b>	<b><u>8,745,791</u></b>	<b><u>(4,748,991)</u></b>	<b><u>7,505,883</u></b>

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

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

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

	Mid – market exchange rate as at 1 January 2022	Mid – market exchange rate as at 31 December 2022	Average depreciation during the year
<b>Currency</b>			
US Dollar (1 USD =)	<u>K16.683</u>	<u>K18.064</u>	8%

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>9. Other expenses</b>				
Provision for bad debts	664,294	3,357,983	652,789	3,375,142
Other expenses	1,600,588	2,625,179	1,574,942	2,626,756
Impairment provision during the year (Note 17.1)	<u>-</u>	<u>(253,908)</u>	<u>-</u>	<u>-</u>
	<b><u>2,264,882</u></b>	<b><u>5,729,254</u></b>	<b><u>2,227,731</u></b>	<b><u>6,001,898</u></b>

### 10. Finance costs

These comprise the following:				
Interest paid on borrowings	1,820,870	954,867	914,906	866,048
Interest paid on overdraft	203	5,432	120	5,383
Interest on lease liabilities	<u>3,527</u>	<u>3,540</u>	<u>3,527</u>	<u>3,540</u>
	<b><u>1,824,600</u></b>	<b><u>963,839</u></b>	<b><u>918,553</u></b>	<b><u>874,971</u></b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>11. (Loss) / Profit Before Tax</b>				
(Loss)/profit before tax is stated after crediting:				
Amortisation of capital grants and capital contributions	<u>213,670</u>	<u>196,677</u>	<u>213,670</u>	<u>196,677</u>
Interest income	<u>18,166</u>	<u>1,466</u>	<u>18,166</u>	<u>1,380</u>
and after charging:				
Net exchange gain/(losses) (note 8)	<u>(5,937,026)</u>	<u>8,750,084</u>	<u>(4,727,020)</u>	<u>7,520,110</u>
Employee benefits	<u>3,894,139</u>	<u>3,957,456</u>	<u>2,179,723</u>	<u>3,910,965</u>
Depreciation and amortisation (note 14 and 15)	<u>2,169,213</u>	<u>1,984,821</u>	<u>1,942,944</u>	<u>1,920,785</u>
Finance costs (Note 10)	<u>1,824,600</u>	<u>963,839</u>	<u>918,553</u>	<u>874,971</u>
Pension costs	<u>100,694</u>	<u>102,694</u>	<u>105,331</u>	<u>100,268</u>
Directors' fees				
in connection with the management of the Group	<u>58,020</u>	<u>21,890</u>	<u>55,905</u>	<u>21,890</u>
- as Directors	<u>6,686</u>	<u>8,286</u>	<u>4,146</u>	<u>1,965</u>
Donations	<u>5,899</u>	<u>8,618</u>	<u>5,893</u>	<u>8,618</u>
<b>(Loss)/profit on disposal of property, plant and equipment</b>	<b><u>(21,971)</u></b>	<b><u>(28,573)</u></b>	<b><u>21,724</u></b>	<b><u>14,227</u></b>

## 12. Current tax

Income tax charge at 35%				
Deferred taxation (note 13)	(9,737)	206,701	-	-
Deferred tax asset de-recognised during the year		-		-
Current tax	<u>35,472</u>	<u>47,270</u>	<u>35,412</u>	<u>33,922</u>
<b>Income tax charge/(credit)</b>	<b><u>25,735</u></b>	<b><u>253,971</u></b>	<b><u>35,412</u></b>	<b><u>33,922</u></b>

Subject to agreement with the Zambia Revenue Authority, the Group had estimated tax losses of K36.917 billion (2021: K13.821 billion) which are available for carry forward for a period of 10 years from the year in which they arose and for set off against future taxable profits. The cumulative tax losses comprise::

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>2021/2022 losses available until 2031 (K'000)</b>	<b>(36,917,712)</b>	<b>(13,821,114)</b>	<b>34,248,320</b>	<b>11,057,046</b>

## GROUP

Tax year	Tax year expiry	Tax loss b/f amount	Utilised	Expired	Tax loss c/f
2015	2025	(1,812,279)	173,215	-	(1,639,064)
2018	2028	(389,093)	-	-	(389,093)
2020	2030	(11,344,153)	-	-	(11,344,153)
2021	2031	(275,589)	-	-	(275,589)
2019	2029	-	-	-	-
2022	2032	-	-	-	(23,269,813)
		<u>(13,821,114)</u>	<u>173,215</u>	<u>-</u>	<u>36,917,712</u>

## COMPANY

### Statement of tax losses

Tax year	Tax year expiry	Utilised in current period K'000	Tax loss utilized in period K'000	Tax loss carried forward K'000
2021	2031	(11,057,046)	-	(11,057,046)
2022	2032	-	-	(23,269,813)
		<u>(48,338,385)</u>	<u>37,281,339</u>	<u>(34,613,966)</u>

## 12. Current tax (continued)

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Included under current liabilities:				
Payable in respect of prior year	1,312,980	1,672,953	1,299,634	1,672,834
Arising during the year	35,469	47,270	35,412	33,922
Paid during the year	(387,434)	(407,243)	(387,391)	(407,122)
Payable at the end of year	<u>961,015</u>	<u>1,312,980</u>	<u>947,655</u>	<u>1,299,634</u>

### Reconciliation of tax charge

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

Profit/(loss) before tax	(1,347,877)	10,697,723	(1,909,745)	8,616,350
Applicable tax rate of 30% or 35%	(404,363)	3,744,203	(572,924)	3,015,723
Permanent differences:				
- Capital exchange gains	(3,125,661)	(4,086,610)	(3,125,661)	(9,783,399)
- Other disallowable items	3,684,715	596,377	3,744,973	6,801,598
- De-recognised during the year	(92,428)	-	(92,428)	-
- *Tax rate adjustment	(36,528)	-	81,452	-
	<u>25,735</u>	<u>253,970</u>	<u>35,412</u>	<u>33,922</u>

\*The subsidiary, Kariba North Bank Extension Power Corporation Limited qualifies for the general investments incentives under the Zambia Development Agency Act No.11 of 2006 (the "Act"). The Act offers a wide range of incentives in the form of allowances, exemptions and concessions for companies. The Act provides for investment thresholds that investors have to meet to qualify for fiscal and non-fiscal incentives.

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000

## 13. Deferred tax

At the beginning of the year	(149,640)	(356,341)	-	(4,996,408)
Charge to equity	-	206,701	-	3,952,621
Credit to profit or loss for the year (Note 12)	-	-	-	-
Derecognised during the year	(9,737)	-	-	(1,043,787)
<b>At the end of the year</b>	<b><u>(159,377)</u></b>	<b><u>(149,640)</u></b>	<b><u>-</u></b>	<b><u>-</u></b>

Deferred tax asset arising on temporary differences of ZESCO was derecognised in 2020 as directors believe the asset is not recoverable.



# GROUP

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

	2022	2021
	K'000	K'000
Deferred tax asset	159,378	149,640
Deferred tax liability	-	-
At the end of the year	159,378	149,640

### 13. Deferred tax (continued)

#### COMPANY

2021	Net tax losses	Accelerated Capital allowances	Revaluation surplus	Provisions and other items	Total
	K'000	K'000	K'000	K'000	K'000
At the beginning of the year	(16,918,434)	4,104,958	8,369,121	(552,052)	(4,996,408)
(Credit) charge to profit or loss	13,601,321	563,880	-	(9,205,200)	3,832,241
Derecognized deferred tax	3,317,114	(3,541,077)	-	9,757,250	9,533,286
Credit to equity	-	-	(8,369,121)	-	(8,369,121)
At the end of the year	-	-	-	-	-
2022	Net tax losses	Accelerated Capital allowances	Revaluation surplus	Provisions and other items	Total
	K'000	K'000	K'000	K'000	K'000
At the beginning of the year	(3,317,114)	3,541,080	-	(9,757,252)	(9,533,286)
(Credit) charge to profit or loss	(7,067,076)	652,940	-	6,550,868	136,732
Derecognised deferred tax	10,384,190	(4,194,019)	-	3,206,384	9,396,554
Credit to equity	-	-	-	-	-
At the end of the year	-	-	-	-	-

Deferred tax asset arising on temporary differences of the Company was derecognised in the 2021 year as directors of the Company believed the asset was not recoverable.

14. Property, plant and equipment

(a) SUMMARY - GROUP

Cost or valuation

	Generation Systems K'000	Transmission Systems K'000	Distribution Systems K'000	Civil works & buildings K'000	Vehicles, Furniture & fittings equipment K'000	Capital work in progress K'000	Total K'000
At 1 January 2021	5,421,347	13,246,837	13,187,963	9,946,988	5,130,419	41,456,341	88,389,895
Additions	68,020	933		343	144,310	4,655,732	4,869,338
Depreciation Capitalised	-	-	1,939	-	-	-	1,939
Disposal	-	-	(4,946)	-	-	-	(4,946)
Transfers from Capital Works in Progress			7,949		-		7,949
Reclassification to intangible assets	20,937	340,231	579,253	283,749	65,884	(1,290,054)	-
Adjustment on assets	-	-	-	-	(348)	(3,640,916)	(3,641,264)
<b>At 31 December 2021</b>	<b>5,510,305</b>	<b>13,588,001</b>	<b>13,772,158</b>	<b>10,231,080</b>	<b>5,340,265</b>	<b>41,181,103</b>	<b>89,622,911</b>

Additions		-	-	-	101,173	3,731,235	3,903,050
Depreciation Capitalised	70,642	-	-	-	-	198	198
Disposals	(3,280)	(19,021)	-	-	(17,618)	-	(39,919)
Transfers from Capital Works in Progress	3,649,337	632,737	952,104	47,097	(3,509,575)	(1,771,701)	-
Transfer to Fibrecom	-	-	-	-	(664)	-	(664)
Reclassification to intangible assets	-	-	-	-	(161,231)	-	(161,231)
Adjustment on assets	-	-	166	-	443	-	609
<b>At 31 December 2022</b>	<b>9,227,003</b>	<b>14,201,717</b>	<b>14,724,429</b>	<b>10,278,177</b>	<b>1,914,024</b>	<b>42,979,604</b>	<b>93,324,954</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

### 14. Property, plant and equipment

#### (b) summary - company

Cost or Valuation	Generation Systems K'000	Transmission Systems K'000	Distribution Systems K'000	Civil Works and Buildings K'000	Vehicles, Furniture and fittings, and Equipment K'000	Capital Works in Progress K'000	Total K'000
<b>At 1 January 2021</b>	<b>4,166,116</b>	<b>13,246,837</b>	<b>13,187,963</b>	<b>8,682,185</b>	<b>5,098,698</b>	<b>10,884,649</b>	<b>55,266,448</b>
Additions	1,488	933	-	343	136,093	3,366,447	3,505,304
Disposals	-	-	-	-	(4,946)	-	(4,946)
Transfer to Fibrecom	-	-	-	-	(14,871)	-	(14,871)
Transfers from Capital Works in Progress	20,937	340,231	579,253	283,749	65,884	(1,290,054)	-
Redclassification to intangible assets (Note 15)	-	-	-	-	1,357	-	1,357
Adjustments	-	-	-	-	(348)	(2,519)	(2,867)
<b>At 31 December 2021</b>	<b>4,188,541</b>	<b>13,588,001</b>	<b>13,767,216</b>	<b>8,966,277</b>	<b>5,281,867</b>	<b>12,958,523</b>	<b>58,750,425</b>
Additions	1,549	-	-	-	74,084	2,383,624	2,459,257
Disposals	(2,141)	(19,021)	-	-	(14,509)	-	(35,671)
Additions	-	-	-	-	(664)	-	(664)
Transfers from Capital Works In Progress	52,089	604,153	951,164	47,097	117,197	(1,771,701)	-
Redclassification to intangible assets (Note 15)	-	-	-	-	-	(161,231)	(161,231)
Adjustments	-	-	166	-	443	-	609
<b>At 31 December 2022</b>	<b>4,240,038</b>	<b>14,173,133</b>	<b>14,718,546</b>	<b>9,013,374</b>	<b>5,458,418</b>	<b>13,409,215</b>	<b>61,012,725</b>
Cost/valuation							
Cost	1,469,056	7,869,798	7,682,606	1,012,860	5,458,418	13,409,215	36,901,954
Valuation (1996)	177,987	-	1,281,611	51,779	-	-	1,511,377
Valuation (2001)	191,640	-	-	153,854	-	-	345,494
Valuation (2017)	2,401,355	6,303,335	5,754,329	7,794,881	-	-	22,253,900
<b>At 31 December 2022</b>	<b>4,240,038</b>	<b>14,173,133</b>	<b>14,718,546</b>	<b>9,013,374</b>	<b>5,458,418</b>	<b>13,409,215</b>	<b>61,012,725</b>

14. Property, plant and equipment

(b) summary – company (continued)

	Generation Systems	Transmission Systems	Distribution Systems	Civil Works and Buildings	Vehicles, Furniture and fittings, and Equipment	Capital Works in Progress	Total
DEPRECIATION	K'000	K'000	K'000	K'000	K'000	K'000	K'000
At 1 January 2021	508,990	1,706,710	2,013,183	909,204	789,637	-	5,927,724
Charge for the year	179,756	606,486	617,999	313,690	192,425	-	1,910,356
Transfer to Fibrecom	-	-	-	-	(3,432)	-	(3,432)
Eliminated on disposals	-	-	-	-	(1,711)	-	(1,711)
At 31 December 2021	688,746	2,313,196	2,631,182	1,222,894	976,919	-	7,832,937
Charge for the year	170,186	598,735	640,141	317,953	190,757	-	1,917,773
Transfer to Fibrecom	-	-	-	-	(96)	-	(96)
Eliminated on disposals	(595)	(2,551)	-	-	(7,775)	-	(10,921)
At 31 December 2022	858,337	2,909,381	3,271,323	1,540,847	1,159,805	-	9,739,693
<b>CARRYING AMOUNT</b>							
At 31 December 2022	3,381,701	11,263,752	11,447,224	7,472,527	4,298,613	13,409,215	51,273,033
At 31 December 2021	3,499,795	11,274,805	11,136,034	7,743,383	4,304,948	12,958,523	50,917,488



**14. Property, plant and equipment (continued)****(c) Fair valuation measurement**

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

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

Property, plant and equipment	Valuation technique	Description of valuation technique	Observable inputs
Freehold land and buildings	Market based approach - Direct Comparable Method (DCM) and Depreciated Replacement Cost (DRC)	<p>Direct Comparable method renders an estimate of value through comparison with other similar available properties which have recently transacted in the vicinity in an attempt to discern the actions of buyers and sellers active in the market place. The current market value is built up from the Land and improvement values of the buildings derived from comparable transactions. Considerations were made with reference to; Location factor, time of sale, accessibility, quality, prevailing economic property trends.</p> <p>The Depreciated Replacement Cost method determines the present market value of the subject property by estimating the present cost of replacing the building(s) by estimating the total amount of accrued depreciation from all causes, namely physical deterioration, functional obsolescence and external obsolescence, subtracting the accrued depreciation from the present replacement costs, estimating the value of minor improvements and adding the site value to the depreciated cost of the building(s). This method was used where there was no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business.</p>	Not applicable

# 14. Property, plant and equipment (continued)

## (c) Fair valuation measurement (continued)

Transmission and distribution systems	Depreciated Current Replacement Value (DCRV)	<p>The DRC method requires that, for each asset under consideration, a value be obtained for a modern equivalent asset (MEA), that being an asset that can reasonably provide like-for-like benefits of the asset under consideration.</p> <p>Transmission line asset prices were obtained from recent ZESCO transmission line projects pricing schedules. An additional 3% on-costs was added to account for the Owner's costs. Line costs were priced per unit length and according to terrain type (flat, hilly and swampy).</p> <p>Distribution equipment pricing data was obtained from recent ZESCO in-house pricing data. Unit installed prices (material and labour) per length of overhead line and underground cable was calculated from these data and a further 100% on-costs were added.</p>	Market prices, exchange rates, discounted rate
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Details of the Group's civil engineering works and buildings, generation plants and transmission and distribution systems and information about the fair value hierarchy as at the end of the reporting period are as follows:

	Level 1	Level 2	Level 3	Fair value as at 31 December 2022
	K'000	K'000	K'000	K'000
Civil Engineering works and buildings	<u>-</u>	<u>2,936,793</u>	<u>-</u>	<u>2,936,793</u>
Generation plants	<u>10,133,677</u>	<u>-</u>	<u>-</u>	<u>10,133,677</u>
Transmission and distribution systems	<u>7,376,442</u>	<u>-</u>	<u>-</u>	<u>7,376,442</u>

#### 14. Property, plant and equipment (continued)

##### (c) Fair valuation measurement (continued)

	Level 1	Level 2	Level 3	Fair value as at
				31 December
	K'000	K'000	K'000	2021
				K'000
Civil Engineering works and buildings			=	
	=	=	<u>2,921,533</u>	<u>2,921,533</u>
Generation plants	=	<u>10,091,093</u>	=	<u>10,091,093</u>
Transmission and distribution systems	=	<u>7,373,679</u>	=	<u>7,373,679</u>

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.

##### (d) Historical cost basis

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

	2022	2021
	K'000	K'000
Civil Engineering works and buildings	<u>369,200</u>	<u>318,200</u>
Generation plants	<u>748,075</u>	<u>527,255</u>
Transmission and distribution systems	<u>12,448,766</u>	<u>11,244,661</u>

##### (e) Sensitivity analysis

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.

##### (f) Useful lives

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.

# 14. Property, plant and equipment (continued)

## (g) Fixed assets register

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.

## (h) Assets Held as Security

During the year under review, the Group continued servicing the lease financing facility with ABSA on procurement of motor vehicles valued at K91 million. The motor vehicles are still held as security in the transaction.

	Group		Company	
15. Intangible assets	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
<b>Cost</b>				
At the beginning of the year	109,985	108,801	109,826	108,659
Additions	161,231	2,541	-	2,524
Reclassification of intangible assets from PPE (note 14)	-	(1,357)	161,231	(1,357)
At the end of the year	<u>271,216</u>	<u>109,985</u>	<u>271,057</u>	<u>109,826</u>
<b>Accumulated amortisation</b>				
At the beginning of the year	34,593	24,128	34,525	24,096
Amortisation expense	<u>24,899</u>	<u>10,465</u>	<u>25,171</u>	<u>10,429</u>
At the end of the year	<u>59,492</u>	<u>34,593</u>	<u>59,696</u>	<u>34,525</u>
<b>Carrying amounts:</b>				
At the end of the year	<u>211,724</u>	<u>75,392</u>	<u>211,361</u>	<u>75,301</u>

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

Significant intangible assets

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

The Group'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 Group's intangible assets as at 31 December 2017 were performed by Messrs. Multiconsult United Kingdom, independent valuers not related to the Group.

## 15. Intangible asset

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 Group 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
	-				Fair value at 31 December 2022
	-	Level 1	Level 2	Level 3	
	-	K''000	K'000	K'000	K'000
Intangible assets	-	-	-	211,724	211,724

					Fair value at 31 December 2021
		Level 1	Level 2	Level 3	
		K''000	K'000	K'000	K'000
Intangible assets	-	-	-	75,392	75,392

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. Right of use assets

### Cost

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
At the beginning of the year	43,205	26,253	35,842	26,253
Additions	(2,616)	18,442	-	11,079
Termination of lease	-	(1,490)	(77)	(1,490)
At the end of the year	40,589	43,205	35,765	35,842

### Accumulated depreciation

At the beginning of the year	(26,323)	18,243	(21,097)	18,243
Charge for the year	4,979	14,386	(9,140)	9,160
Termination of Lease	-	(6,306)	9,202	(6,306)
At the end of the year	(21,344)	26,323	(21,035)	21,097

### Carry amounts:

At the end of the year	19,245	16,882	14,730	14,745
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The Group leases mainly building assets with an average lease term of 5 years. The Group has an option to purchase certain buildings it currently occupies at market value.

Most of the lease agreements which run for one year are renewed on an annual basis for the same period.



## 17. Investments in subsidiaries and associates

### 17.1 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%
Fibrecom Limited	Provision of IP connectivity	Zambia, Lusaka	100%
Kalungwishi Hydro Power Company Limited	Construction of the Power generation facility	Zambia, Lusaka	100%

### 17.2 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 of ownership
(i)	Itezhi Tezhi Power Corporation Limited (Joint Venture)	Generation and supply of electricity	Zambia, Lusaka	50%
(ii)	El Sewedy Electric Zambia Limited (Associate)	Manufacturing of distribution transformers ranging from 25kV to a maximum of 5,000kV (5mva)	Zambia, Ndola	40%
(iii)	Zambia Electrometer Limited (Associate)	Manufacture of electricity meters and compact fluorescent lights.	Zambia, Ndola	40%

**17. Investments in subsidiaries and associates (continued)****17.2 Investments in associates and a joint venture (continued)**

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)**

	<b>2022</b>	<b>2021</b>
	<b>K'000</b>	<b>K'000</b>
At the beginning of the year	<u>228,347</u>	<u>(25,561)</u>
Share of profit/(loss) for the year	5,865	(25,561)
Impairment provision during the year	<u>(253,908)</u>	<u>253,908</u>
<b>At the end of the year</b>	<b><u>(19,696)</u></b>	<b><u>228,347</u></b>
Statement of financial position:		
Current assets	<u>2,846,906</u>	<u>2,846,906</u>
Non-current assets	<u>1,614,015</u>	<u>1,614,015</u>
Current liabilities	<u>1,678,359</u>	<u>1,678,359</u>
Non- current liabilities	<u>2,418,912</u>	<u>2,481,912</u>
Net (liabilities) assets of the joint venture	<u>300,650</u>	<u>300,650</u>
Proportion of the Group's ownership	50%	50%
<b>Group share of net assets/(liabilities)</b>	<b><u>150,325</u></b>	<b><u>150,325</u></b>
Statement of comprehensive income:		
Revenue	<u>1,934,956</u>	<u>1,934,936</u>
Net exchange gains	<u>1,646,989</u>	<u>(1,646,989)</u>
Total comprehensive loss for the year	<u>3,230</u>	<u>(51,112)</u>
	<u>3,230</u>	<u>(51,122)</u>
Proportion of the Group's ownership	50%	50%
<b>Group share of joint venture's profit/(loss) for the year</b>	<b><u>1,615</u></b>	<b><u>(25,561)</u></b>

## 17. Investments in subsidiaries and associates (continued)

	2022 K'000	2021 K'000
<b>[ii] El Sewedy Electric Zambia Limited</b>		
<b>(Associate)</b>		
At the beginning of the year	41,297	60,269
Share of (loss)/profit for the year	<u>6,581</u>	<u>(18,972)</u>
At the end of the year	<u>47,878</u>	<u>41,297</u>
Statement of financial position:		
Current assets	<u>5,355,160</u>	<u>224,246</u>
Non-current assets	<u>1,546,023</u>	<u>152,890</u>
Current liabilities	<u>1,310,919</u>	<u>88,085</u>
Non- current liabilities	<u>1,717,434</u>	<u>4,629</u>
Net assets of the joint venture	3,872,830	284,422
Proportion of the Group's ownership	40%	40%
<b>Group share of net assets</b>	<b><u>1,549,132</u></b>	<b><u>113,769</u></b>
Statement of comprehensive income:		
Revenue	<u>198,303</u>	<u>247,077</u>
Profit for the year	<u>5,865</u>	<u>68,357</u>
Total comprehensive income for the year	<u>16,453</u>	<u>(47,429)</u>
Proportion of the Group's ownership	40%	40%
<b>Group share of associate's (loss)/profit for the year</b>	<b><u>6,581</u></b>	<b><u>8,744</u></b>

**[iii] Zambia Electrometer Limited****(Associate)**

At the beginning of the year	19,439	26,303
Share of loss for the year	<u>-</u>	<u>(6,864)</u>
At the end of the year	<u>19,439</u>	<u>19,439</u>

## 17. Investments in subsidiaries and associates (continued)

## [iii] Zambia Electrometer Limited (Associate) (continued)

	2022 K'000	2021 K'000
<b>Statement of financial position</b>		
Current assets	<u>388</u>	<u>388</u>
Non-current assets	<u>5,950</u>	<u>5,950</u>
Current liabilities	<u>120,006</u>	<u>120,006</u>
Non- current liabilities	<u>3,181</u>	<u>3,181</u>
Net liabilities of the associate	<u>(116,849)</u>	<u>(116,849)</u>
Proportion of the Group's ownership	40%	40%
<b>Group share of net liabilities</b>	<u>(46,740)</u>	<u>(46,740)</u>
<b>Statement of comprehensive income:</b>		
Revenue	-	-
Profit for the year	<u>-</u>	<u>-</u>
Total comprehensive loss for the year	<u>-</u>	<u>(17,159)</u>
Proportion of the Group's ownership	40%	40%
<b>Group share of associate's loss for the year</b>	<u>-</u>	<u>(6,864)</u>
<b>Summary of associates position:</b>		
At the beginning of the year	<u>49,991</u>	<u>75,827</u>
<b>Share of profit and loss for the year:</b>		
ElSewedy Electric Zambia Limited	6,581	(18,972)
Zambia Electrometer Limited	<u>-</u>	<u>(6,864)</u>
	<u>6,581</u>	<u>(25,836)</u>
<b>Total closing position for both associates</b>	<u>56,572</u>	<u>49,991</u>

## 18. Inventories

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Materials	1,280,090	989,498	1,119,442	
Fuel and lubricants	23,656	17,510	49,427	17,510
Spares	86,620	62,261	23,656	62,261
Goods in transit	49,427	9,049	86,620	9,049
	1,439,793	1,078,318	1,279,145	938,837
Allowance for obsolescence	(204,855)	(204,855)	(204,855)	(204,855)
	<u>1,234,938</u>	<u>873,463</u>	<u>1,074,290</u>	<u>733,982</u>

The cost of inventories recognised as an expense during the year was K256 million (2021: K261 million).

Inventories are disclosed net of provision for obsolete stock amounting to K205 million (2021: K205 million).

## 19. Trade and other receivables

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
The balance comprises:				
Gross trade receivables	12,890,699	17,457,206	12,812,137	17,325,816
Impairment allowance	(10,742,962)	(16,529,220)	(10,742,962)	(16,497,293)
	<u>2,147,737</u>	<u>927,986</u>	<u>2,069,175</u>	<u>828,523</u>
<b>Other receivables</b>				
Other receivables	612,029	1,224,525	707,484	1,205,591
Staff receivables	93,548	48,192	93,548	47,959
Prepayments	10,587	10,587	-	-
Allowance for doubtful debts	(239,191)	(86,700)	(239,191)	(86,700)
	<u>476,973</u>	<u>1,196,604</u>	<u>561,841</u>	<u>1,166,850</u>
<b>Total trade and other receivables</b>	<u>2,624,710</u>	<u>2,124,590</u>	<u>2,631,016</u>	<u>1,995,373</u>
The movement in allowance for doubtful trade receivables is as follows:				
Balance at the beginning of the year	16,566,155	13,806,721	16,497,293	13,806,721
Charge for the year	(5,823,193)	2,759,434	(5,754,331)	2,690,572
At the end of the year	<u>10,742,962</u>	<u>16,566,155</u>	<u>10,742,962</u>	<u>16,497,293</u>

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**19. Trade and other receivables (continued)**

		<b>Group</b>	<b>Company</b>	
	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
The movement in allowance for doubtful debts for other receivables is as follows:				
Balance at the beginning of the year	86,700	111,425	86,700	111,425
Impairment losses recognised on other receivables	152,491	12,210	152,491	12,210
Reversal of impairment losses recognised on other receivables	-	(36,935)	-	(36,935)
<b>At the end of the year</b>	<b><u>239,191</u></b>	<b><u>86,700</u></b>	<b><u>239,191</u></b>	<b><u>86,700</u></b>

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 company's different customer bases.

## 19. Trade and other receivables (continued)

### GROUP

#### 31 December 2022

	Not past due K'000	0-30 past due K'000	31-60 past due K'000	61-90 past due K'000	More than 90 days past due K'000	Total K'000
Expected credit loss rate	0%	33%	43%	62%	93%	82%
Estimated total gross carrying Amount at default	-	1,467,190	711,197	478,455	10,233,857	12,890,699
Lifetime ECL	-	(478,640)	(304,053)	(294,726)	(9,665,542)	(10,742,962)
	-	<u>988,550</u>	<u>407,144</u>	<u>183,728</u>	<u>568,315</u>	<u>2,147,737</u>

### GROUP

#### 31 December 2021

	Not past due K'000	0-30 past due K'000	31-60 past due K'000	61-90 past due K'000	More than 90 days past due K'000	Total K'000
Expected credit loss rate	0%	83%	84%	68%	98%	95%
Estimated total gross carrying Amount at default	-	1,126,689	926,711	625,194	14,778,612	17,457,206
Lifetime ECL	-	(918,867)	(774,163)	(422,034)	(14,451,091)	(16,566,155)
	-	<u>207,822</u>	<u>152,548</u>	<u>203,160</u>	<u>327,521</u>	<u>891,051</u>

## 19. Trade and other receivables (continued)

### COMPANY

#### 31 December 2022

	Not past due K'000	0-30 days past due K'000	31-60 days past due K'000	61-90 days past due K'000	More than 90 days past due K'000	Total K'000
Expected credit loss rate	0%	31%	60%	72%	94%	84%
Estimated total gross carrying amount at default	-	1,473,174	707,419	480,888	10,150,656	12,812,137
Lifetime ECL	-	(459,544)	(425,250)	(345,686)	(9,512,482)	(10,742,962)
<b>Net balance</b>	-	<b>1,013,630</b>	<b>282,169</b>	<b>135,202</b>	<b>638,174</b>	<b>2,069,175</b>

#### 31 December 2021

	Not past due K'000	0-30 days past due K'000	31-60 days past due K'000	61-90 days past due K'000	More than 90 days past due K'000	Total K'000
Expected credit loss rate	0%	83%	84%	68%	98%	95%
Estimated total gross carrying amount at default	-	1,101,719	919,155	619,179	14,685,763	17,325,816
Lifetime ECL	-	(918,867)	(774,163)	(422,034)	(14,382,229)	(16,497,293)
<b>Net balance</b>	-	<b>182,852</b>	<b>144,992</b>	<b>197,145</b>	<b>303,534</b>	<b>828,523</b>

## 19. Trade and other receivables (continued)

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

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
0- 30 days	988,550	207,822	1,013,630	182,852
30 - 60 days	407,144	152,548	282,169	144,992
60 - 90 days	183,729	203,160	135,202	197,145
Over 90 days	568,315	327,521	638,174	303,534
	<b>2,147,738</b>	<b>891,051</b>	<b>2,069,175</b>	<b>828,523</b>

The average credit period on services 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 Group has recognised a loss allowance of 98% against all receivables over 90 days past due because historical experience has indicated that these receivables are generally not fully 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.

## Age of impaired trade receivables

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
0 - 30 days	478,640	918,867	459,544	918,867
30 - 60 days	304,054	774,163	425,250	774,163
60 - 90 days	294,726	422,034	345,686	422,034
Over 90 days	<u>9,665,542</u>	<u>14,451,091</u>	<u>9,512,482</u>	<u>14,382,229</u>
	<b><u>10,742,962</u></b>	<b><u>16,566,155</u></b>	<b><u>10,742,962</u></b>	<b><u>16,497,293</u></b>

## Trade Receivables placed as Security

Part of Copperbelt Energy Corporation Limited (CEC) receivables have been assigned as security for China Exim Bank Loan which was procured to finance the construction of Kariba North Bank Power Extension Corporation Limited generating plant. The Kalumbila Minerals Limited receivables have been assigned 100% towards the Power Purchases from Maamba Collieries Limited. Mpande Limestone Limited receivables have been assigned to Geria International Loan, while part of Lumwana Mining Group Limited receivables have been assigned to ZTE loan for the Fibre metropolitan project. San He Manufacturing (Z) Limited receivables have been assigned to Industrial Development Corporation Limited Shareholder as part of security for the loan obtained as equity for construction of the 750 MW Kafue Gorge Lower Power Project.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

### 20. Share capital

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Authorised				
2,500,000,000 ordinary shares of K2 each	<u>5,000,000</u>	<u>5,000,000</u>	<u>5,000,000</u>	<u>5,000,000</u>

Issued and fully paid

1,412,559,015 ordinary shares of K2 each	<u>2,825,118</u>	<u>2,825,118</u>	<u>2,825,118</u>	<u>2,825,118</u>
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There was no change to Group's and Company share capital during the year.

### 21. Related party transactions

The Group's immediate and ultimate holding Company is Industrial Development Corporation Zambia Limited incorporated in Zambia and owned and controlled by the Government of the Republic of Zambia. During the year the Group carried out transactions with related parties as detailed below:

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
(i) <b>Trading transactions</b>				
Rendering of services	<u>37,268</u>	<u>31,637</u>	<u>409,391</u>	<u>409,391</u>
Purchases of services	<u>24,797</u>	<u>155,827</u>	<u>(578,374)</u>	<u>(3,065,356)</u>

#### ii) Amounts due from related parties

Government of the Republic of Zambia	3,531,778	3,500,333	3,531,778	3,500,333
Itezhi Tezhi Power Corporation Limited (ITTPC)				
incorporated in Zambia	883,548	819,831	883,548	819,831
Zambia Electrometer Limited, incorporated in Zambia	50,969	34,588	50,969	34,588
Kariba North Bank Extension Power Corporation Limited	-	-	43,823	31,459
Kafue Gorge Lower Power Corporation Limited	-	-	67,448	-
Rural Electrification Authority (b)	3,898	8,418	3,897	8,418
Allowance for doubtful debts (a)	<u>(845,807)</u>	<u>(486,284)</u>	<u>(845,807)</u>	<u>(486,284)</u>
	<u>3,624,386</u>	<u>3,876,886</u>	<u>3,735,656</u>	<u>3,908,345</u>

#### (a) Year end balances

The movement in allowance for doubtful debts in respect of the amounts due from related parties is as follows:

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Balance at beginning of year	486,284	(628,541)	(486,284)	(628,541)
Charge for the year	<u>(359,523)</u>	<u>142,257</u>	<u>(359,523)</u>	<u>142,257</u>
At end of the year	<u>(845,807)</u>	<u>(486,284)</u>	<u>(845,807)</u>	<u>(486,284)</u>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

### 21. Related party transactions

Rural Electrification Authority is a Government spending agency charged with the responsibility of electrifying the Rural Areas of the Country. The Authority engages ZESCO to undertake certain projects on its behalf and in turn the Authority pays ZESCO for the works undertaken.

The amounts outstanding are unsecured and will be settled in cash. No guarantees have been given or received. A provision for doubtful debts in respect of amounts due from related parties amounting to K486 million (2020: 628 million) was made during the year.

The amounts outstanding are unsecured and will be settled in cash. No guarantees have been given or received. A provision for doubtful debts in respect of amounts due from related parties amounting to K486 million (2020: K628 million) was made during the year.

	Group		Company	
	2022	2021	2022	2021
(iii) Amounts due to related parties	K'000	K'000	K'000	K'000
Itezhi Tezhi Power Corporation Limited (ITTPC) incorporated in Zambia (b)	10,855,706	9,707,684	12,700,753	9,707,684
Kariba North Bank Extension Power Corporation incorporated in Zambia (a)	883,294	-	3,344,125	526,338
Kafue Gorge Power Development Corp Ltd (a)	65,414	-	843,039	227,487
Elsowedy Electric Zambia Limited (c)	40,787	103,359	40,787	103,359
Fibrecom	-	-	495	-
	<u>11,845,201</u>	<u>9,811,043</u>	<u>16,929,199</u>	<u>10,564,868</u>

a) Kariba North Bank Extension Power Corporation Limited and Kafue Gorge Lower Corporation are subsidiary companies,

b) Itezhi Tezhi Power Corporation is a joint venture investment with 50% shareholding.

c) Elsowedy Electric Zambia Limited is an associate with 40% shareholding.

	Group		Company	
	2022	2021	2022	2021
(c) Key management personnel remuneration	K'000	K'000	K'000	K'000
Key management remuneration	55,697	33,248	55,905	21,890
Directors' fees	8,286	5,981	4,146	1,965
	<u>63,983</u>	<u>39,229</u>	<u>60,051</u>	<u>23,855</u>

### 22. Borrowings

The movement on loans is as follows:

At the beginning of the year	35,093,526	46,681,713	19,828,193	26,255,300
Borrowings arising during the year	216,166	2,559,816	866,249	2,601,997
Net exchange (losses)/gains	2,337,289	(9,958,658)	1,471,040	(5,699,555)
Repayments made during the year	<u>1,573,814</u>	<u>(4,189,345)</u>	<u>(2,175,442)</u>	<u>(3,329,549)</u>
<b>Balance at the end of the year</b>	<b><u>36,613,021</u></b>	<b><u>35,093,526</u></b>	<b><u>19,990,040</u></b>	<b><u>19,828,193</u></b>

The borrowings are repayable as follows:

On demand or within one year	1,672,376	1,775,268	2,041,130	2,157,293
Loans payable within 1 to 2 years	2,212,391	17,310,376	2,212,391	1,663,018
Loans payable within 3-5 years	6,615,798	5,072,500	6,610,400	5,072,500
Loans payable over 5 years	<u>26,112,456</u>	<u>10,935,382</u>	<u>9,126,119</u>	<u>10,935,382</u>
<b>Total</b>	<b><u>36,613,021</u></b>	<b><u>35,093,526</u></b>	<b><u>19,990,040</u></b>	<b><u>19,828,193</u></b>

Disclosed as:

Due after one year	34,940,645	33,318,258	17,948,910	17,670,900
Due within one year	<u>1,672,376</u>	<u>1,775,268</u>	<u>2,041,130</u>	<u>2,157,293</u>
<b>Total</b>	<b><u>36,613,021</u></b>	<b><u>35,093,526</u></b>	<b><u>19,990,040</u></b>	<b><u>19,828,193</u></b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022

### 22. Borrowings (continued)

The borrowings are due to the following:

		Group		Company	
		2022	2021	2022	2021
		K'000	K'000	K'000	K'000
i	Industrial Commercial Bank of China and the Export Import Bank of China	15,705,085	15,647,358	-	-
ii	Industrial Development Corporation Shareholder Loan	3,432,159	3,169,826	3,432,159	3,169,826
iii	Industrial Commercial Bank of China	3,134,025	3,134,025	2,828,943	3,134,025
vi	China Exim Bank	1,786,434	1,786,434	1,536,515	1,786,434
v	Nordea Stanbic Bank	1,572,442	1,572,442	1,529,252	1,572,442
vi	DBSA - Loan Kafue Gorge Hydro Power Station	1,450,708	1,412,365	1,450,708	1,412,365
vii	GRZ/International Development Agency	1,402,169	1,339,167	1,402,169	1,339,167
viii	DBSA - Kariba North Bank Hydro Power Station Corporation Limited	-	-	-	-
ix	GRZ/China Exim Bank	814,048	751,827	814,048	751,827
x	European Investment Bank - LTDRP Loan facility	777,816	718,365	777,816	718,365
xi	GRZ/International Development Association - Kafue Muzuma	751,304	693,879	751,304	693,879
xii	European Investment Bank	747,025	689,927	747,025	689,927
xiii	African Development Bank	677,295	605,644	677,295	605,644
xiv	GRZ/Agence Francaise De Development ZANACO Medium Term Loan K	485,396 463,092	485,396 -	525,567 463,092	485,396 -
xv	Industrial Commercial Bank of China Facility-Mpika Transmission	443,039	443,039	417,135	443,039
xvi	Industrial Commercial Bank of China Facility Loan – Musonda Falls	422,724	422,724	416,099	422,724
xvii	Industrial Commercial Bank of China Facility-Chipata-Lundazi	410,198	410,198	403,769	410,198
xviii	Kafue Gorge Limited – Bridge Loan	222,098	-	222,098	382,026
xix	GRZ/Japan International Cooperation Agency	300,336	300,336	292,193	300,336
xx	India Exim Bank Loan 2	280,388	280,388	271,635	280,388
xxi	European Investment Bank	254,661	235,196	254,661	235,196
xxii	China Machinery Engineering Corporation Limited	213,232	213,232	-	213,232
xxiii	Nigeria Trust Fund	155,405	134,636	155,405	134,636
xxiv	China Exim Bank-Ii Kabwe-Pensulo	131,424	127,448	131,424	127,448
xxv	Geria International Investments LLC (i)	116,547	116,547	90,064	116,547
xxvi	Geria International Investments LLC (ii)	116,782	116,782	90,320	116,782
xxvii	GRZ/World Bank ABSA Medium Term Loan	79,711 61,333	73,619 -	79,711 61,333	73,619 -
xxviii	ABSA - Vehicle Asset Lease	65,219	65,219	38,720	65,219
xxix	Agency Francaise de Development	57,704	56,617	57,704	56,617
xxx	GRZ/World Bank Facility 2	58,486	54,016	58,486	54,016
xxxi	Mpande Limestone Limited	-	12,138	-	12,138
xxxii	CNMC Industrial Zone Development	24,736	24,736	13,391	24,735
		<b>36,613,021</b>	<b>35,093,526</b>	<b>19,990,040</b>	<b>19,828,193</b>

## 22. Borrowings (continued)

### 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 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 begun after the financial close was achieved in June 2018. Interest is 3.2% Margin plus 6 months LIBOR (Screen Rate) paid semi-annually. The Loan will be repaid over 10 years. The loan is denominated in United States Dollar. There were no draw downs in the year ended 31 December 2022. The balance at reporting date was K15.7 Billion

### ii. IDC / ZPC Shareholder Loan

This is a USD 190 million loan facility obtained from the Industrial Development Corporation (IDC) and Zambia Power Corporation (ZPC) by ZESCO on 19 May 2020. The loan facility was obtained to finance ZESCO Equity into Kafue Gorge Lower Hydro Power Corporation (KGL). The interest is at 10% fixed paid semi-annually with a grace period of three years. The loan facility is denominated in United States Dollars and will be repaid within 23 years including the grace period of three years. The balance at the reporting date was USD 189.999 million or K3.2 billion.

### iii. Industrial and Commercial Bank of China

This is a USD 285 million loan facility obtained from Industrial and 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 USD 171.6 million or K3.1 billion.

### iv. China Exim Bank

This is a USD 315.6 million loan facility 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 Plc and Chambeshi Copper Mining Group. The loan is denominated in United States Dollar and as at reporting date, the loan balance was USD 97.4 million or K1.76 billion.

### v. Nordea Stanbic Bank

This is a USD 133 million loan facility obtained from Nordea bank on 14 August 2014. The loan was obtained to finance the connection of North Western Province to the National Grid. The loan shall be repaid over a 14year period including a grace period of 2 years. The interest rate is 3.69% per annum fixed payable semi-annually. The loan facility is in United States Dollar and the balance at the reporting date was USD 0.83 million or K1.5 billion.

## 22. Borrowings (continued)

### vi. **Development Bank of Southern Africa (DBSA) (KGL)**

This is a USD 100 million loan facility obtained from Development Bank of Southern Africa (DBSA) on 4 May 2016 to finance the Kafue Gorge Lower Hydro Power Project. Interest is charged at 9.4% plus 6month 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 USD 77.5 million or K1.4 billion.

### vii. **GRZ/International Development Agency**

This is a USD 105 million loan facility obtained from the International Development Association on 3 October 2013 by the Government of the 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 USD 77.5 million or K1.402 billion.

### ix. **GRZ/China Exim Bank**

This is a USD 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 USD 45 million or K843 million.

### x. **GRZ/European Investment Bank - LTDRP Loan Facility**

This is a USD 106 million loan facility obtained from the European Investment Bank on 3 October 2013 by the Government of the Republic of Zambia and on lent to ZESCO to finance the Lusaka Transmission and Distribution Rehabilitation Project. Interest is charged at 1.2% semi-annum and the loan (principal plus interest) will be repaid over 30 years including 10 years grace period. The loan is denominated in United States Dollar. The loan balance at the reporting date was USD 43.059 million or K777.8 million.

### xi. **GRZ/International Development Association-Kafue Muzuma**

This is a USD 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 USD 41.58 million or K751.3 million.

**22. Borrowings (continued)**

**xii. GRZ/European Investment Bank**

This is a EUR 50 million loan facility from the European Investment Bank (EIB) obtained by the Government of the Republic of Zambia on 10 December 2012. The facility was obtained for the purpose of financing the Itezhi-Tezhi Hydro Power plant, Mumbwa Substation and Lusaka West - Mumbwa Transmission Line Project. The facility shall be settled over a period of twenty five (25) years including a grace period of five (5) years. The interest is charged at 1.2% per cent per annum. The balance at the reporting date was USD 41 million or K747 million.

**xiii. GRZ/African Development Bank**

This is a USD 40.212 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 Itezhi-Tezhi Hydro Power and Transmission Line Project at semi-annual interest of 2.5%. The loan facility is in United States Dollars and the balance at the reporting date was USD 37.5 million or K677 million.

**xiv. GRZ/Agence Francaise De Development**

This is a USD 34.4 million loan facility obtained from the International Development Association on 18 December, 2012 by the Government of the Republic of Zambia and on lent to ZESCO to finance the construction of Itezhi Tezhi Power Station. Interest is computed at 1.5% semi annum and the loan (principal plus interest) will be repaid over 25 years including 5 years of grace period. The loan is denominated in United States Dollar. The balance at reporting date was USD 29.095 million or K485.396 million.

**xv. Industrial and Commercial Bank of China – Mpika Transmission**

This is a USD 29.6 million loan facility obtained from Industrial and Commercial Bank of China by ZESCO on the 13 July 2016. The loan facility was obtained to finance the improvement of power supply in Mpika. The loan shall be repaid over a 15 year period including a grace period of 3 years. The interest is LIBOR plus 3.35% per annum. The loan facility is in United States Dollar and the balance at the reporting date was USD 26.556 million or K443.039 million.

**xvi. Industrial and Commercial Bank of China Facility Loan - Musonda Falls**

This is a USD 35.25 million loan facility obtained from Industrial and Commercial Bank of China by ZESCO 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 15year 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 USD 25.338 million or K422.724 million.

**xvii. Industrial and Commercial Bank of China - Chipata-Lundazi-Chama 132KV Transmission Line**

This is a USD 36.84 million loan facility obtained from Industrial and Commercial Bank of China by ZESCO 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 USD 24.587 million or K410.198 million.



## 22. Borrowings (continued)

### xviii. Kafue Gorge Lower Bridge Finance

This is a USD 22.98 million bridge loan obtained from Kafue Gorge Lower for working capital support and it is an interest free loan. The loan shall be repaid over a period of 5 months. The loan facility is denominated in United States Dollars and the balance as at the reporting date was USD 12.9 million or K222.09 million.

### xix. GRZ/Japan International Cooperation Agency (JICA)

This is a Yens 5.5 billion loan facility obtained from JICA by Government of Republic of Zambia on 1 November 2010. There were additional drawdowns amounting to Yens 149 million during the year. 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 2.073 billion or K300.34 million.

### xx. India Exim Bank Loan 2

This is a USD 20.35 million facility obtained from India Exim bank on 11 April 2018 to finance the construction of 142km 132kV transmission line from Leopards Hill to Chitope along with the 33kV distribution network. The interest rate is LIBOR plus 3.0%. The facility is in United States Dollar and the balance as at the reporting date was USD 16.806 million or K280.388 million.

### xxi. GRZ/European Investment Bank

This is a EUR22 million loan facility obtained from the European Investment Bank (EIB) by the Government of the Republic of Zambia on 4 of December 2012. The Government agreed to on-lend to ZESCO on the terms and conditions set forth in the finance contract. The purpose of the facility was to finance the Kafue-Livingstone transmission Line project. The loan facility shall be repaid to the Government in equal semi-annual installments beginning five (5) years after the signature date of the on-lending loan and ending ten (10) years after the date of such agreement. The interest is charged at one and half percent (1.5%). The loan facility is in USD and the balance at the reporting date was USD 14.1 million or K254.6 million.

### xxii. China Machinery Engineering Corporation (CMEC)

This is a USD 15 million facility (Bridging finance) obtained from China Machinery Engineering Corporation (CMEC) by ZESCO on 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 obtains financing or in Twelve equal installments whichever comes earlier. The interest is charged at 6% fixed per annum. The balance at the reporting date was USD 12.781 million or K213.232 million.

## 22. Borrowings (continued)

### xxiii. GRZ/Nigeria Trust Fund

This is a USD 9.22 million loan facility obtained from the Nigerian Trust Fund by the Government of the Republic of Zambia on 19 December 2012. The loan was lent to ZESCO 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 USD 8.6 million or K155.4 million.

### xxiv. China Exim Bank – II Kabwe - Pensulo

This is a USD 114 million facility obtained from Export-Import Bank of China (Exim Bank China) by ZESCO on 15 December 2017. The facility was obtained for the construction of the second Kabwe Stepdown-Pensulo 330 KV Transmission Line project. The tenure of the facility is 15 years. The principal 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 USD 7.2 million or K131.4 million.

### xxv. Geria International Investments LLC

This is a USD 10 million loan facility obtained from Geria International Investments LLC on 02 April 2019. The loan was obtained to finance the Supply, Delivery and Commissioning of the Leopards Hill switchyard, Mpashya and Chitope 132/33kV substations and construction of staff houses and offices. The loan tenure is 6 years. The interest rate is 9.85% fixed. The facility is in United States Dollar and the balance as at the reporting date was USD 6.463 million or K116.742 million.

### xxvi. Geria International Investments LLC 2

This is a USD 10 million loan facility obtained from Geria International Investments LLC on 30 May 2020. The loan was obtained to finance the Power reinforcement to New Mumbwa Sub-Station, Coventry Sub Station and Kafue Town Sub Station. The loan tenure is 6 years. The interest rate is 9.85% fixed. The facility is in United States Dollar and the balance as at the reporting date was USD 7.00 million or K116.782 million.

### xxvii. GRZ/World Bank

This is a USD 16 million loan facility obtained from World Bank by Government of Republic of Zambia on 9 February 2009. The loan was lent to ZESCO to finance the Increased Access to Electricity Project. The loan shall be repaid over a 20 year period including a grace period of 5 years. The loan will have a 2% interest charge per annum. The loan facility is in United States Dollar and the balance at the reporting date was USD 4.41 million or K79.7 million.

### xxviii. ABSA Lease

This is a K100 million loan facility from ABSA Bank Zambia Plc for purchase of 89 brand new motor vehicles from Toyota Zambia. Finance charges on this facility are at 10.50% plus Bank of Zambia Policy Rate (BPR). This credit agreement was signed on 03 June 2021. Principal and interest are paid monthly and the loan tenure is 3 years. The facility balance at the reporting date was K65.219 million.

## 22. Borrowings (continued)

### xxix. **GRZ/Agence Francaise de Development**

This is a €40 million loan facility obtained from Agence Francaise de Development by GRZ and on lent to ZESCO on 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 is 5% per annum fixed. The loan facility is in Euros and the balance at the reporting date was €3.0 million or K57.704 million.

### xxx. **GRZ/World Bank Facility 2**

This is a USD 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 USD 3.2 million or K58.4 million.

### xxxi. **CNMC Industrial Zone Development**

The facility was obtained as capital contribution in 2009 on the Chambishi line from ZCCZ who contributed 40% of the total project costs of USD 27.8 million (i.e. USD 11.1 million). It is to be paid in 180 equal instalments of USD 61,778 per month. There is no interest on this vendor finance and there is no security attached to the agreement. The balance at the reporting date was USD 1.4 million or K24.736 million.

## 22. Borrowings (continued)

### Breach of loan agreements

#### (i) European Investment Bank

The Group was non compliant with some covenants because the current ratio was less than 1, the Debt Service Cover ratio was less than 1 and; the debt collection period was more than 45 days.

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

The Group was non-compliant with the DBSA loan covenants. The Group was in breach of the leverage ratio, Debt Service Cover ratio and gearing ratio which was more than 72%.

#### (iii) Standard Chartered Bank

The Group was non compliant with the Gross Debt to EBITDA which was -54; and the Debt Service Cover Ratio was less than 1.25.

#### (iv) Stanbic Bank

The Group was non-compliant with the Debt to Equity percentage which was less than 140%. The Group was non-compliant with the Debt Service Cover ratio which was less than 1.25 and the ratio of Gross Debt to EBITDA was more than 6.

#### (v) Bank of China

The Group was non-compliant as the EBITDA to Total Interest Cost was less than 2 but was compliant to the ratio of Total Liabilities to Total Assets which was less than 70%.

#### (vi) ZANACO

The Group was compliant with the gearing ratio which was less than 1; and was non-compliant with the current ratio which was less than 1.

## 23. Retirement benefit obligation

#### (i) Defined contribution plan - NAPSA

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 K87.9 million (2021: K79.3 million) represents contributions payable to these plans by the Group.

As 31 December 2022, contributions of K12 million (2021: K14.5 million) due in respect of the current reporting period had not been paid over to the plans.

## 23. Retirement benefit obligation (continued)

### (ii) LASF defined benefit plan

Under the terms of employment, qualifying employees of ZESCO are members of a state-managed retirement benefit plan operated by the Local Authorities' Superannuation Fund ("LASF"). ZESCO is required to contribute a specified percentage of payroll costs to the retirement benefit plan to fund the benefits. The only obligation of ZESCO with respect to the retirement benefit plan is to make the specified contributions. The fund also 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 2017 was carried out and showed a deficit of K538 million. No provision has been made in these financial statements for any unfunded liability of the Fund as the directors are of the opinion that any liability will be met by the Government of the Republic of Zambia.

The Group's contributions to the plan 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 cost of pension contributions during the year was K13.11 million (2021: K16.3 million). As at 31 December 2021, contributions of K1.43 million (2021: K1.7 million) due in respect of the current reporting period had not been paid over to the plans.

### (iii) Long service retirement benefit

Under the terms of employment, qualifying employees of the Group are entitled to post-employment benefits. The benefits are defined benefit in nature based on the members' length of service and their salary at the earlier of retirement or death or termination from employment. The defined benefit plan is administered and paid for by the Group. The Plan runs on an unfunded basis as ZESCO (the Employer) meets benefit costs as they fall due.

The most recent actuarial valuation of the present value of the defined benefit obligation was carried out on 31 December 2022 by Zambia State Insurance Actuarial Consultants. The present value of the defined benefit obligation, and the related current service cost and past service cost were measured using the projected unit credit method.

The plan typically exposes the Group to actuarial risks such as: interest rate risk, salary risk and liquidity risk.

Interest rate risk	The plan liabilities are calculated using a discount rate which is the long-term investment return which matches the yield on government bonds as reported in the IMF Report. A decrease in government bonds will increase the plan liabilities.
Salary risk	The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.
Liquidity risk	The plan is unfunded. There is a risk that resources might not be available when needed to pay the benefits that have become due.

#### Actuarial assumptions:

2022

2021

Discounting rates	26%	26%
Salary increases	19.5%	19.5%

### 23. Retirement benefit obligation (continued)

	Group		Company	
<b>Benefit cost to be recognized in profit and loss</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
Net interest	-	-	135,886	-
Current service cost	135,886	398,829	502,596	398,829
Prior year service cost	<u>1,379,304</u>	<u>1,379,304</u>	<u>1,358,625</u>	<u>1,379,304</u>
Profit and loss expense	<u>1,515,190</u>	<u>1,778,133</u>	<u>1,997,107</u>	<u>1,778,133</u>
<b>Remeasurements to be recognized in other comprehensive income</b>				
Gain from change in financial assumptions	-	-	-	-
Experience gains	-	-	-	-
Actuarial Gains on economic assumptions	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>The amounts to be recognised in the statement of financial position</b>				
At beginning of the year	3,200,624	2,049,065	3,200,625	2,049,065
Current service cost	879,761	1,778,133	335,374	1,778,134
Prior year service cost	-	-	(1,403,102)	-
Interest income	-	-	638,482	-
Gain from change in financial assumptions	-	-	-	-
Experience gains	-	-	-	-
Benefits paid during the year	<u>(399,636)</u>	<u>(626,698)</u>	<u>(774,272)</u>	<u>(626,574)</u>
At 31 December	<u>3,680,749</u>	<u>3,200,500</u>	<u>1,997,107</u>	<u>3,200,625</u>
<b>Disclosed in the financial statements as:</b>				
Non-current	3,516,246	3,024,165	1,842,877	3,024,165
Current	<u>164,503</u>	<u>178,335</u>	<u>154,230</u>	<u>176,460</u>
	<u>3,680,749</u>	<u>3,200,500</u>	<u>1,997,107</u>	<u>3,200,625</u>
<b>Sensitivity of defined benefit obligation to actuarial assumptions</b>				
<b>Current results</b>	3,680,749	3,200,500	1,997,107	3,242,839
<b>Discount rate</b>				
Increase by 1%	-	-	-	-
Decrease by 1%	-	-	-	-
<b>Salary increase</b>				
Increase by 1%	-	-	-	-
Decrease by 1%	-	-	-	-



## 23. Retirement benefit obligation (continued)

The table above shows that assuming a long-term investment return that is 1% higher than the valuation assumption would yield a Defined Benefit Obligation that is K3.03 million lower than that reported. On the other hand, adopting a long-term investment rate that is 1% lower than assumed would yield a defined benefit obligation that is K3.06 million higher than reported.

Applying a long-term salary escalation rate that is 1% higher than assumed would yield a liability position that is K209.30 million higher than reported whereas a salary escalation that is 1% lower than expected would yield a liability value that is K187.31 million lower than reported.

### (iv) Gratuity benefits

The Group accrues for short term gratuity benefits for employees on contracts between 1 to 3 years. The gratuity computations are based on the terms and conditions agreed with employees at the point of signing the contract;

	Group		Company	
	2022 K'000	2021 K'000	2022 K'000	2021 K'000
<b>At the beginning of the year</b>	<b>42,214</b>	<b>40,973</b>	<b>42,214</b>	<b>40,973</b>
Current service cost	1,875	1,241	14,544	1,241
Benefits paid during the year	-	-	-	-
<b>At the end of the year</b>	<b><u>44,089</u></b>	<b><u>42,214</u></b>	<b><u>56,758</u></b>	<b><u>42,214</u></b>
Disclosed in the financial statements as:				
Non-current	44,089	42,214	48,360	42,214
Current	-	-	8,398	-
	<b><u>44,089</u></b>	<b><u>42,214</u></b>	<b><u>56,758</u></b>	<b><u>42,214</u></b>

### (v) Total retirement benefit obligation recorded on the statement of financial position

Long service retirement benefit	3,680,749	3,202,500	1,997,107	3,202,500
Gratuity benefits	<u>44,089</u>	<u>42,214</u>	<u>56,758</u>	<u>42,214</u>
	<b><u>3,724,838</u></b>	<b><u>3,244,714</u></b>	<b><u>2,053,865</u></b>	<b><u>3,244,714</u></b>
Disclosed in the financial statements as:				
Non-current	3,560,335	3,066,379	1,891,237	3,066,379
Current	<u>164,503</u>	<u>178,335</u>	<u>162,628</u>	<u>178,335</u>
	<b><u>3,724,838</u></b>	<b><u>3,244,714</u></b>	<b><u>2,053,865</u></b>	<b><u>3,244,714</u></b>

**24. Capital grants and capital contributions**

<b>Group</b>	<b>Capital grants K'000</b>	<b>Capital contributions K'000</b>	<b>Total K'000</b>
At 1 January 2021	348,760	2,531,344	2,880,104
Additions during the year	118,467	329,171	447,638
Amortisation of capital grants and contributions	<u>(26,271)</u>	<u>(170,405)</u>	<u>(196,676)</u>
At 31 December 2021	440,956	2,690,110	3,131,066
Additions during the year	52,373	262,608	314,981
Amortisation of capital grants and contributions	<u>(26,271)</u>	<u>(187,399)</u>	<u>(213,670)</u>
<b>At 31 December 2022</b>	<b><u>467,058</u></b>	<b><u>2,765,319</u></b>	<b><u>3,232,377</u></b>

<b>Maturity analysis</b>	<b>2022 K'000</b>	<b>2021 K'000</b>
Non current	3,094,076	2,997,100
Current	<u>138,301</u>	<u>133,966</u>
<b>Total</b>	<b><u>3,232,377</u></b>	<b><u>3,131,066</u></b>

**Company**

	<b>Capital Grants K'000</b>	<b>Capital contributions K'000</b>	<b>Total K'000</b>
At 1 January 2021	348,760	2,531,344	2,880,104
Additions during the year	118,467	329,171	447,638
Amortisation of capital grants and contributions	<u>(26,271)</u>	<u>(170,405)</u>	<u>(196,676)</u>
At 31 December 2021	440,956	2,690,110	3,131,066
Additions during the year	52,373	262,608	314,981
Amortisation of capital grants and contributions	<u>(26,271)</u>	<u>(187,399)</u>	<u>(213,670)</u>
<b>At 31 December 2022</b>	<b><u>467,058</u></b>	<b><u>2,765,319</u></b>	<b><u>3,232,377</u></b>

**Maturity analysis:**

	<b>2022 K'000</b>	<b>2021 K'000</b>
Non current	3,131,066	2,997,100
Current	<u>138,301</u>	<u>133,966</u>
<b>Total</b>	<b><u>3,269,367</u></b>	<b><u>3,131,066</u></b>

Group		Company	
2022	2021	2022	2021
K'000	K'000	K'000	K'000

## 25. Trade and other payables

Trade payables	25,225,752	23,876,085	20,535,249	18,413,384
Sundry payables and accrued expenses	689,167	1,611,419	717,025	1,607,421
Employee related accruals	<u>227,972</u>	<u>155,265</u>	<u>227,972</u>	<u>155,265</u>
	<b><u>26,142,891</u></b>	<b><u>25,642,769</u></b>	<b><u>21,480,246</u></b>	<b><u>20,176,070</u></b>

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.

The Directors consider that the carrying amount of trade and other payables approximates their fair value.

Group		Company	
2022	2021	2022	2021
K'000	K'000	K'000	K'000

## 26. Bank overdraft

ABSA Bank Zambia Plc (i)	16,236	-	16,236	-
Zambia National Commercial Bank Plc (ii)	<u>6,183</u>	<u>-</u>	<u>6,183</u>	<u>-</u>
	<b><u>22,419</u></b>	<b><u>-</u></b>	<b><u>22,419</u></b>	<b><u>-</u></b>

### i) ABSA Bank Zambia Plc

An overdraft banking facility amounting to K50 million. The overdraft was agreed in January 2020 with a 12-month tenor with interest payable monthly at three-month BOZ policy plus 12.0%. The facilities are repayable strictly on demand. The facility is renewed annually. The amount drawn as on 31 December 2022 under this facility was K16.2 million (2021: K26.7 million). The facility is secured against unlimited collections held in the bank accounts from time to time.

### ii) Standard Chartered Bank Plc

An overdraft banking facility amounting to K25 million. The overdraft was agreed in April 2020 with a 12-month tenor with interest payable monthly at three-month BOZ Policy Rate plus 5.5%. The facilities are repayable strictly on demand. The facility is renewed annually. There amount drawn as at 31 December 2022 under this facility was K6.2 million (2021: Nil).

## 27. Financial instruments

### Capital risk management

The Group manages its capital to ensure that it will be able to continue as a going concern while managing the return to stakeholders through the management 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. Debt includes both long term and short term interest bearing liabilities.

### 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 256% (2020: 1,434%).

The gearing ratio at the year end was computed as follows:

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Debt (i)	<u>34,940,645</u>	<u>33,318,258</u>	<u>19,990,040</u>	<u>19,828,193</u>
Equity (ii)	<u>12,325,876</u>	<u>13,209,219</u>	<u>12,566,272</u>	<u>14,511,429</u>
<b>Total debt and equity</b>	<b><u>284%</u></b>	<b><u>253%</u></b>	<b><u>159%</u></b>	<b><u>137%</u></b>

(i) Debt is defined as long- and short-term borrowings.

(ii) Equity includes all capital and reserves of the Group.

### 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.

**27. Financial instruments (continued)**

	Group		Company	
	2022	2021	2022	2021
Categories of financial instruments	K'000	K'000	K'000	K'000
<b>Financial assets:</b>				
- Amounts due from related parties	3,624,386	3,876,886	3,738,810	3,908,345
- Trade and other receivables	2,520,575	2,124,590	3,122,746	1,995,373
- Bank and cash	3,856,846	2,985,177	2,631,016	2,321,959
	<b>10,001,807</b>	<b>8,986,653</b>	<b>9,492,572</b>	<b>8,225,677</b>
<b>Financial liabilities:</b>				
- Amounts due to related parties	11,845,201	9,811,043	16,929,199	10,564,868
- Trade and other payables	25,914,919	25,642,769	21,480,246	20,176,070
- Borrowings	36,613,021	35,093,526	19,990,040	19,828,193
- Lease liabilities	-	37,613	22,419	30,250
- Bank overdraft	22,419	-	26,487	-
	<b>74,395,560</b>	<b>70,584,951</b>	<b>58,448,391</b>	<b>50,599,381</b>

**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.

**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:

**Group**

	Financial assets		Financial liabilities	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
United States Dollar (\$)	16,106,394	7,716,419	20,839,967	20,839,967
Japanese Yen (JPY)	-	-	300,336	300,336
South Africa Rand (ZAR)	-	-	-	-
Euro	-	-	121,835	121,835
GBP	<b>16,106,394</b>	<b>7,716,416</b>	<b>21,262,138</b>	<b>21,262,138</b>

**27. Financial instruments (continued)****Company**

	Financial assets		Financial liabilities	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
United States Dollar (\$)	16,106,394	7,716,419	57,190,284	20,839,967
Japanese Yen (JPY)	-	-	292,193	300,336
South Africa Rand (ZAR)	-	-	629,398	-
Euro	-	-	-	121,835
	<u>16,106,394</u>	<u>7,716,416</u>	<u>58,111,875</u>	<u>21,262,138</u>

**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:

**Group**

		Scenario 1 5% increase in variable interest rates	Scenario 2 5% decrease in variable interest rates
At 31 December 2022			
Loss before tax	(1,358,386)	(1,358,386)	(1,358,386)
At 31 December 2021			
Profit before tax	<u>10,697,723</u>	<u>11,232,609</u>	<u>10,162,837</u>

**Company**

		Scenario 1 5% increase in variable interest rates	Scenario 2 5% decrease in variable interest rates
	K'000	K'000	K'000
At 31 December 2022			
Loss before tax	(1,955,667)	(1,955,667)	(1,955,667)
At 31 December 2021			
Profit before tax	<u>8,616,350</u>	<u>9,047,168</u>	<u>8,185,533</u>



## 27. Financial instruments (continued)

### Interest rate risk management

The Group, 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 Group, 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.

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
The Group's maximum exposure to credit risk is analysed below:				
Amounts due from related parties	3,624,386	3,876,886	3,735,656	3,908,345
Bank and cash balances	2,520,575	2,985,177	3,122,746	2,321,959
Trade and other receivables	<u>3,856,846</u>	<u>2,124,590</u>	<u>2,631,016</u>	<u>1,995,373</u>
	<b><u>10,001,807</u></b>	<b><u>8,986,653</u></b>	<b><u>9,489,418</u></b>	<b><u>8,225,677</u></b>
The maximum exposure to credit risk for trade receivables at the reporting date by key customer sector was:				
Mining	15,067,089	15,067,089	10,251,893	15,067,089
Exports	1,057,274	1,057,274	1,265,307	1,057,274
Industrial and related sectors	332,167	332,167	740,920	386,680
The Local authorities and water utilities	386,680	386,680	278,799	332,167
Government and related entities	364,791	364,791	165,188	364,791
Domestic customers	100,250	100,250	95,534	100,250
Agriculture and related sectors	17,565	17,565	14,496	17,565
IP Connectivity	<u>78,552</u>	<u>131,390</u>	<u>-</u>	<u>-</u>
	<b><u>17,404,368</u></b>	<b><u>17,457,206</u></b>	<b><u>12,812,137</u></b>	<b><u>17,325,816</u></b>

### 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.

## 27. Financial instruments (continued)

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.

### Group

	Payable on Demand	1 – 3 Months	3 months to 1 year	Above 1 year	Total
	K'000	K'000	K'000	K'000	K'000
<b>Year ended 31 December 2022</b>					
<b>Financial liabilities</b>	-	1,672,376	-	34,940,645	36,613,021
- Borrowings	-	25,914,919	-	-	25,914,919
- Trade and other payables	-	11,845,201	-	-	11,845,201
- Amounts due to related parties					
- Bank overdraft	22,419	-	-	-	22,419
- Lease liabilities	-	-	-	-	-
	<u>22,419</u>	<u>39,432,496</u>	<u>-</u>	<u>34,940,645</u>	<u>74,395,560</u>
<b>Financial assets</b>					
- Amount due from related parties	-	3,624,386	-	-	3,624,386
- Trade and other receivables	-	2,520,575	-	-	2,520,575
- Bank and cash balances	3,856,846	-	-	-	3,856,846
	<u>3,856,846</u>	<u>6,144,961</u>	<u>-</u>	<u>-</u>	<u>10,001,807</u>

### Company

#### Year ended 31 December 2022

	Payable on demand	1 - 3 months	3 months to 1 year	Above 1 year	Total
	K'000	K'000	K'000	K'000	K'000
<b>Financial liabilities</b>					
- Borrowings	-	-	2,041,130	17,948,910	19,990,040
- Trade and other payables	1,301,118	1,638,236	331,677	18,209,215	21,480,246
- Amounts due to related parties	1,197,903	606,635	268,194	14,856,467	16,929,199
- Lease liabilities	-	22,419	-	-	22,419
	<u>-</u>	<u>-</u>	<u>15,711</u>	<u>10,776</u>	<u>26,487</u>
	<u>2,499,021</u>	<u>2,267,290</u>	<u>2,656,712</u>	<u>51,025,368</u>	<u>58,448,391</u>
<b>Financial assets</b>					
- Amounts due from related parties	-	-	3,735,656	-	3,735,656
- Trade and other receivables	1,013,630	282,169	135,202	1,200,015	2,631,016
- Bank and cash balance	3,122,746	-	-	-	3,122,746
	<u>4,136,376</u>	<u>282,169</u>	<u>3,870,858</u>	<u>1,200,015</u>	<u>9,489,418</u>

**27. Financial instruments (continued)****Group**

<b>Year ended 31 December 2021</b>	<b>Payable on Demand K'000</b>	<b>1 – 3 Months K'000</b>	<b>3 months to 1 year K'000</b>	<b>Above 1 year K'000</b>	<b>Total K'000</b>
<b>Financial liabilities</b>					
- Borrowings	-	1,775,268		33,328,258	35,093,526
- Trade and other payables	-	24,960,481	-	-	24,960,481
- Amounts due to related parties	-	10,338,065	-	-	10,338,065
- Bank overdraft	22,419	-	-	-	-
- Lease liabilities	-	-	-	-	-
	<u>22,419</u>	<u>37,073,814</u>	<u>-</u>	<u>33,328,258</u>	<u>70,392,072</u>
<b>Financial assets</b>					
- Amount due from related parties	-	4,019,143	-	-	4,019,143
- Trade and other receivables	-	2,065,811	-	-	2,065,811
- Bank and cash balances	<u>2,985,177</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,985,177</u>
	<u>2,985,177</u>	<u>6,084,954</u>	<u>-</u>	<u>-</u>	<u>9,070,131</u>

**Company****Year ended 31 December 2021**

	<b>Payable on demand K'000</b>	<b>1 - 3 months K'000</b>	<b>3 months to 1 year K'000</b>	<b>Above 1 year K'000</b>	<b>Total K'000</b>
<b>Financial liabilities</b>					
- Borrowings	-	-	2,157,293	17,670,900	19,828,193
- Trade and other payables	1,511,744	618,859	254,505	17,790,962	20,176,070
- Amounts due to related parties	910,377	224,639	228,801	9,201,051	10,564,868
- Lease liabilities	-	-	<u>15,711</u>	<u>14,539</u>	<u>30,250</u>
	<u>2,422,121</u>	<u>843,948</u>	<u>2,656,310</u>	<u>44,677,452</u>	<u>50,599,381</u>
<b>Financial assets</b>					
- Amounts due from related parties	-	-	3,908,345	-	3,908,345
- Trade and other receivables	903,813	381,122	409,353	301,085	1,995,373
- Bank and cash balance	<u>2,321,959</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,321,959</u>
	<u>3,225,772</u>	<u>381,122</u>	<u>4,317,698</u>	<u>301,085</u>	<u>8,225,677</u>

## 27. Financial instruments (continued)

### Fair value measurements

The information set out below provides information about how the Group determines fair values of various financial assets and financial liabilities.

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities. This level includes listed equity securities and debt instruments on exchanges (for example, Lusaka Stock Exchange).

Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

Level 3 – inputs for the asset or liability that are not based on observable market data (unobservable inputs). This level includes equity investments and debt instruments with significant unobservable components.

This hierarchy requires the use of observable market data when available. The Group considers relevant and observable market prices in its valuations where possible.

Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis.

There were no financial assets and liabilities that are measured at fair value on a recurring basis during the period.

Fair value of financial assets and financial liabilities that are not measured at fair value on a recurring basis (but fair value disclosures are required).

Except as detailed in the following table, the directors consider that the carrying amounts of financial assets and financial liabilities recognised in the financial statements approximate their fair values.

**27. Financial instruments (continued)****Group**

	2022		2021	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>				
- Amounts due from related parties	3,624,386	3,624,386	3,876,886	3,876,886
- Trade and other receivables	2,520,575	2,520,575	2,124,590	2,124,590
- Bank and cash	<u>6,141,961</u>	<u>6,141,961</u>	<u>2,985,177</u>	<u>2,985,177</u>
<b>Total</b>	<b><u>12,286,922</u></b>	<b><u>12,286,922</u></b>	<b><u>8,986,653</u></b>	<b><u>8,986,653</u></b>
<b>Financial liabilities</b>				
- Borrowings	36,613,021	36,613,021	35,093,526	35,093,526
- Trade and other payables	25,914,919	25,914,919	25,642,769	25,642,769
- Amounts due to related parties	11,845,201	11,845,201	9,811,043	9,811,043
- Bank overdraft	22,419	22,419	-	-
- Lease liabilities	<u>31,885</u>	<u>31,885</u>	<u>37,613</u>	<u>37,613</u>
<b>Total</b>	<b><u>74,427,445</u></b>	<b><u>74,427,445</u></b>	<b><u>70,584,951</u></b>	<b><u>70,584,951</u></b>

**27. Financial instruments (continued)****Company**

	2022		2021	
	Carrying amount	Fair value	Carrying amount	Fair value
	K'000	K'000	K'000	K'000
<b>Financial assets</b>				
- Amounts due from related parties	3,624,386	3,624,386	3,908,345	3,908,345
- Trade and other receivables	3,856,846	3,856,846	1,995,373	1,995,373
- Cash and bank balances	<u>2,520,575</u>	<u>2,520,575</u>	<u>2,321,959</u>	<u>2,321,959</u>
<b>Total</b>	<b><u>10,001,807</u></b>	<b><u>10,001,807</u></b>	<b><u>8,225,677</u></b>	<b><u>8,225,677</u></b>

	2022		2021	
	Carrying amount	Fair value	Carrying amount	Fair value
	K'000	K'000	K'000	K'000
<b>Financial liabilities</b>				
- Borrowings	36,613,021	36,613,021	19,828,193	19,828,193
- Trade and other payables	25,914,919	25,914,919	20,176,070	20,176,070
- Amounts due to related parties	11,845,201	11,845,201	10,564,868	10,564,868
- Bank overdraft	22,419	22,419	-	-
- Lease liabilities	<u>31,885</u>	<u>31,885</u>	<u>30,250</u>	<u>30,250</u>
<b>Total</b>	<b><u>74,427,445</u></b>	<b><u>74,427,445</u></b>	<b><u>50,599,381</u></b>	<b><u>50,599,381</u></b>



**27. Financial instruments (continued)****Group**

Fair value hierarchy as at 31 December 2022				
	Level 1	Level 2	Level 3	Total
Financial assets	K'000	K'000	K'000	K'000
- Amounts due from related parties				
- Trade and other receivables	-	-	4,019,143	4,019,143
- Bank and cash balances	-	-	2,065,811	2,065,811
<b>Total</b>	<u>-</u>	<u>-</u>	<u>2,985,177</u>	<u>2,520,575</u>
	<u>-</u>	<u>-</u>	<u>9,070,131</u>	<u>9,070,131</u>

Fair value hierarchy as at 31 December 2022				
	Level 1	Level 2	Level 3	Total
Financial liabilities:	K'000	K'000	K'000	K'000
-	-	-	36,613,021	36,613,021
- Borrowings	-	-	25,914,919	25,914,919
- Trade and other payables	-	-	11,845,201	11,845,201
- Amounts due to related parties	-	-	22,419	22,419
- Bank overdraft	-	-	<u>31,885</u>	<u>31,885</u>
- Lease liabilities	-	<u>-</u>	<u>74,427,445</u>	<u>74,427,445</u>
<b>Total</b>				

## 27. Financial instruments (continued)

## Company

## Fair value hierarchy as at 31 December 2022

	Level 1 K'000	Level 2 K'000	Level 3 K'000	Total K'000
<b>Financial assets</b>				
Loans and receivables:				
- Loans due from a related party	-	-	3,735,656	3,735,656
- Amounts due from related parties	-	-	-	-
- Trade and other receivables	-	-	-	-
- Cash and bank balances	-	-	2,631,016	2,631,016
<b>Total</b>	<b>-</b>	<b>-</b>	<b>6,366,672</b>	<b>6,366,672</b>

## Financial liabilities:

- Borrowings	-	-	19,990,040	19,990,040
- Trade and other payables	-	-	21,480,246	21,480,246
- Amounts due to related parties	-	-	16,929,199	16,929,199
- Bank overdraft	-	-	22,419	22,419
- Lease liabilities	-	-	26,487	26,487
<b>Total</b>	<b>-</b>	<b>-</b>	<b>58,448,391</b>	<b>58,448,391</b>

**27. Financial instruments (continued)****Group****Fair value hierarchy as at 31 December 2021**

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
<b>Financial assets</b>				
- Amounts due from related parties	-	-	3,876,886	3,876,886
- Trade and other receivables	-	-	2,124,590	2,124,590
- Bank and cash balances	-	-	2,985,177	2,985,177
<b>Total</b>	<b>-</b>	<b>-</b>	<b>8,986,653</b>	<b>8,986,653</b>

**Fair value hierarchy as at 31 December 2021**

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
<b>Financial liabilities:</b>				
- Borrowings	-	-	35,093,526	35,093,526
- Trade and other payables	-	-	25,642,769	25,642,769
- Amounts due to related parties	-	-	9,811,043	9,811,043
- Bank overdraft	-	-	-	-
- Lease liabilities	-	-	37,613	37,613
<b>Total</b>	<b>-</b>	<b>-</b>	<b>70,584,951</b>	<b>70,584,951</b>

**27. Financial instruments (continued)****Company****Fair value hierarchy as at 31 December 2021**

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
<b>Financial assets</b>				
Loans and receivables:				
- Loans due from a related party	-	-		
- Amounts due from related parties	-	-	3,908,345	3,908,345
- Trade and other receivables	-	-	1,995,373	1,995,373
- Cash and bank balances	-	-	2,321,959	2,321,959
<b>Total</b>	<b>-</b>	<b>-</b>	<b>8,225,677</b>	<b>8,225,677</b>

**Financial liabilities:**

- Borrowings	-	-	19,828,193	19,828,193
- Trade and other payables	-	-	20,176,070	20,176,070
- Amounts due to related parties	-	-	10,564,868	10,564,868
- Bank overdraft	-	-	-	-
- Lease liabilities	-	-	30,250	30,250
<b>Total</b>	<b>-</b>	<b>-</b>	<b>50,599,381</b>	<b>50,599,381</b>

The fair values of the financial assets and financial liabilities included in the level 3 category above have been determined in accordance with generally accepted pricing models based on a discounted cash flow analysis, with the most significant inputs being the discount rate that reflects the credit risk of counterparties.

## 28. Lease liabilities

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
At beginning of the year	37,613	16,453	30,250	16,453
At initial recognition	-	-	-	-
Addition	10,639	26,773	1,988	19,410
Finance costs	3,540	3,540	3,527	3,540
Termination on Lease	-	-	-	-
Repayments	(12,544)	(9,153)	(9,278)	(9,153)
<b>At year end</b>	<b><u>39,248</u></b>	<b><u>37,613</u></b>	<b><u>26,487</u></b>	<b><u>30,250</u></b>
Maturity analysis				
Year 1	25,802	32,775	22,592	25,802
Year 2	18,947	11,994	10,143	11,584
Year 3	2,357	2,357	2,064	2,357
Year 4	849	849	743	849
Year 5	60	60	53	60
	48,015	48,035	35,595	40,652
Less: Unearned interest	(10,402)	(10,402)	(9,108)	(10,402)
	<b><u>37,613</u></b>	<b><u>37,633</u></b>	<b><u>26,487</u></b>	<b><u>30,250</u></b>
Analysed as:				
Non-current	16,174	14,929	10,776	14,539
Current	<u>15,711</u>	<u>22,684</u>	<u>15,711</u>	<u>15,711</u>
	<b><u>31,885</u></b>	<b><u>37,613</u></b>	<b><u>26,487</u></b>	<b><u>30,250</u></b>

## 29. Going concern

### Introduction

The IFRS Conceptual Framework states that going concern is an underlying assumption in the preparation of IFRS financial statements of the Group. Therefore, the financial statements presume that an entity will continue in operation in the foreseeable future or, if that presumption is not valid, disclosure and a different basis of reporting are required.

The Board of Directors ("Board") believes that, as of the date of this report, this presumption is still appropriate and accordingly the financial statements have been prepared on the going concern basis.

### Ability of the Group to continue as a going concern

IAS 1 Preparation of Financial Statements requires management to perform an assessment of the Group's ability to continue as a going concern. If management is aware of material uncertainties related to events or conditions that may cast significant doubt upon the entities' ability to continue as a going concern, IAS 1 requires these uncertainties to be disclosed.

## 29. Going concern (continued)

In conducting this assessment, the Board have taken into consideration the following factors;

### a) Financial position

- The Group's current liabilities as at 31 December 2022 of K40.9 billion (2021: K38.9 billion) exceeds the current assets of K11.8 billion (2021: K9.9 billion). However, the carrying amounts of total assets of the entity of K83.1 billion (2021: K81.5 billion) exceeded the total liabilities of K82.6 billion (K78.2 billion) in the year under review.
- The increase in current liabilities by 5% to K40.9 billion from K38.9 billion in 2021 was mainly due to depreciation of the Kwacha against the US dollar, as over 85% of liabilities in terms of trade payables owed to Independent Power Producers are invoiced in US dollar, while our reporting currency is the local currency Kwacha, which appreciated by the end of 2022.

### b) Strategic Plan (10 Year Rolling)

The Directors' have put in place a Strategic Plan (10 - year rolling) with focus on financial sustainability and improved customer service delivery. The initiatives that the Directors are implementing include;

#### i Debt Restructuring

The long term debt stands at about K34.9 billion or USD 2.1 billion, borrowed for capital infrastructure investment.

As part of the debt restructuring the Group has reached an advanced stage in engagement with The Government of Zambia through the Ministry of Finance and National Planning to convert the Government guaranteed and on-lent concessional loans to equity amounting to USD 371.5 million. Once the loans have been converted, it is expected to reduce the levels of gearing and improve the equity.

Further, the Group is in the process of re-negotiating the terms of the existing expensive long term debt under the commercial loans category. The process of engagement with various lenders is still on going. The strategy includes engagement of individual lenders with a view to restructure the existing debt by reviewing the repayment terms and interest rates and possible deferment of the repayment of loans as they fall due.

The debt restructuring will include re-negotiating with some Lenders to reduce the levels of debt reserves, which holds cash cover for the debt repayment for certain loans. This will free up cash to assist in liquidating long outstanding arrears for IPPs and other Suppliers of goods and services.

#### ii IPPs Tariff Re-negotiations

The IPPs tariff re-negotiations have been concluded with Maamba Collieries Limited and Itezhi Tezhi Power Corporation Limited. The new tariff has been implemented for Maamba Collieries Limited while the tariff for ITPC is yet to be implemented pending the finalisation of agreement on Conditional Precedence. This will improve the liquidity and reduce the cost of power from IPPs and subsequently improve financial performance.



## 29. Going concern (continued)

### iii Revenue Enhancement

This includes the following initiatives;

- The migration to cost reflective tariffs for Domestic customers will be achieved by 2027 through multiyear tariff increases as which the Energy Regulation Board has awarded the Corporation.

Further, the long outstanding review of capital contribution for new customer connection was approved by ERB and effected in January 2023

- The Group finalized the New Bulky Supply Agreement (BSA) with Copperbelt Energy Corporation Limited. The development will result in a stable business relationship with our major customer on the Copperbelt and significant reduction in provisions for doubtful debt in line with IFRS 9 - Financial Instruments.
- The Group concluded the negotiations with IPP, Maamba on the Power Purchase Agreement. This has resulted into reduction of liabilities and power purchase costs compared to previous years.
- The Group has continued to engage the Government of Zambia on debt swap for outstanding amounts on it's electricity domestic debt. This is aimed at improving the liquidity of the Group and reduce the outstanding electricity debtor to Government and it's agencies.

### c) Macro- Economic conditions and impact of COVID-19

- There has been changes in the Macro-Economic conditions in 2022 year with the following major changes.
- The Exchange rate of Kwacha to USD dollar depreciated to K18.064/US dollar at 31December 2022 from K16.683 at 1 January 2022, this had a positive impact on the financial statements for the Group. The exchange rate movement of Kwacha against the US dollar is sensitive and has an impact in the turnover and ultimately the outcome of the financial performance of the Group in the next 12 months and thereafter.
- The Country has obtained a credit facility of USD 1.3 billion from International Monetary Fund (IMF). This will be used as an economic stimulus and to restructure the existing Debt of the Country.
- The Government of the Republic of Zambia is in the process of concluding the country's debt restructuring with it's lender of Euro-Bond and other Creditors which will have a positive impact on the Group's debt structure.

## 29. Going concern (continued)

### d) **Impact of COVID-19**

- The Group continued to conduct its business with COVID 19 awareness even though there were less incidences of the epidemic affecting the business in the year
- The Group meets its day to day working capital requirements from operations as well as various forms of borrowing.
- The Financial statements have been prepared on the going concern basis which assumes that the Group will continue in operational existence for the foreseeable future. The validity of this depends on the Group being able to obtain external financial resources or GRZ support to finance its operations.
- If the Group were unable to continue in operational existence for the foreseeable future, adjustments would have to be made to reduce the statement of financial position values of assets to their recoverable amounts, to provide for further liabilities that might arise and to reclassify property, plant and equipment and long-term liabilities as current assets and liabilities.
- Whilst the directors are presently uncertain as to the outcome of the matters mentioned above, they believe that it is appropriate for the financial statements to be prepared on a going concern basis

### 30. Budgeted commitments

	Group		Company	
	2022	2021	2022	2021
	K'000	K'000	K'000	K'000
Authorised by the directors but not contracted for	5,900,065	5,434,082	5,900,065	5,207,279

### 31. Contingent liabilities

There were no known material contingent liabilities at 31 December 2022 and 31 December 2021.

### 32. Events after the reporting date

- (a) The Group commissioned two additional generator machines of 150 MW each at Kafue Gorge Lower Power Station bringing on board 300 MW to the National Grid. This makes four generator machines with a total of 600 MW being operated in 2022 at KGLP. The 5th Generator was commissioned in 2023.
  - (b) During the year 2022 the Group signed a 13 year Bulk Supply Agreement (BSA) with Copperbelt Energy Corporation Limited.
  - (c) The Group finalised a Debt Swap between Water Utilities, Central Government, Zambia Revenue Authority and ZESCO amounting to K329 million.
  - (d) The Group finalised tariff renegotiations with Independent Power Producers - Maamba Collieries and Itezhi Tezhi Power Corporation Limited (ITPC).
- d) The Group concluded the Power Purchase Agreement with First Quantum Mine in 2023

### 33. Climate Change

The Company recognises Climate Risk as an Integrated Risk Type. Climate Risk is defined as the potential for financial loss and non-financial detriments arising from climate change and society's response to it. The Company aims to measure and manage financial and non-financial risks from climate change, and reduce emissions related to its own activities in alignment with the Paris Agreement. Climate change impacts almost all the sectors within the economy. However, the Company notes that there are certain sectors that are more vulnerable to climate risks under different Transition Risk and Physical Risk scenarios. The Company plans to move quickly in developing identified methodologies and engage with its various stakeholders and integrate Climate Risk into its mainstream risk management activities and assessments. The Company will seek to adapt its approach as the impact from Climate Risk becomes clearer and the tools and methodologies to gather reliable data mature.

## Notes

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**ZESCO**