ZERA

ZIMBABWE ENERGY REGULATORY AUTHORITY

2018 ANNUAL REPORT

YEAR ENDED 30 DECEMBER 2018

About ZERA

The Zimbabwe Energy Regulatory Authority (ZERA) is a statutory body established by the Energy Regulatory Authority Act [Chapter 13:23] of 2011. The Act mandates ZERA to regulate the procurement, production, transportation, transmission, distribution, importation and exportation of energy derived from any energy source.

ZERA is also responsible for licensing of all electricity and petroleum companies as provided for in the Energy Regulatory Authority Act [Chapter 13:23] of 2011, read together with the Electricity Act [Chapter 13:19] of 2002, the Petroleum Act [Chapter 13:22] of 2006 and subsequent amendments.

VISION

To be the Regulator that promotes universal access to sustainable energy by 2030.

MISSION

To provide a level playing field for safe, reliable and sustainable energy supply through effective regulation.

REGULATORY PRINCIPLES

• Accountability - Responsibility for results

• Fairness - Love for equity

• Independence - Making decisions consistent with the mandate

• Transparency - Openness in communication

VALUES

• Commitment - The Authority’s dedication to quality service

• Ubuntu - Upholding essential human virtues; compassion and humanity
• Responsiveness - Turnaround time to deliver
• Innovation - The creation of sustainable methods of service delivery
• Team work – Collaboration

For sustainable energy.

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Abbreviation And Acronyms

AFUR - African Forum for Utility Regulators

BERA - Botswana Energy Regulatory Authority

CEMVP - Certified Energy Management and Verification Professionals

CCZ - Consumer Council Zimbabwe

CEA - Certified Energy Auditors

COMESA - Community of Eastern and Southern Africa

CZI - Confederation of Zimbabwe Industries

EMA - Environmental Management Authority

ESI - Electricity Supply Industry

FOB - Free on Board

GW - Gigawatt

IPP - Independent Power Producer

IRENA - International Renewable Energy Agency

kVA - kilo-volt-ampere

kW - Kilowatt

LED - Light Emitting Diode

LPG - Liquefied Petroleum Gas

MD - Maximum Demand

MERA - Malawi Energy Regulatory Authority

MOEPD - Ministry of Energy and Power Development

MW - Mega Watt

NIERP - National Integrated Energy Resource Plan

NOIC - National Oil Infrastructure Company

NRE - Nyangani Renewable Energy

PPA - Power Purchase Agreement

The Authority supported people living with albinism with sun screens.

1.0 Board Chairperson's Foreword

Dr. Ester Khosa
Board Chairperson

The year under review witnessed a surge of new applications for both electricity and petroleum sub-sectors. This was attributed to the improved business environment ushered in by the New Dispensation. The Authority measured up to the demands by diligently issuing the relevant licenses and reducing turnaround time. A worrying phenomenon is the slow rate of development for electricity projects after the issuance of the relevant licenses. In response, some licensed entities were summoned to appear before Authority to show cause why their licenses should not be cancelled.

1.2. Macro-economic overview

The economy in 2018 remained subdued with the growth rate expected to be around 4%. Policy interventions to promote exports continued recognising that exports remain the major source of the country's foreign exchange earnings and, therefore liquidity. The annual inflation rate jumped from 3.53% in January 2018 to 42.1% by December 2018. The jump was mainly driven by food inflation, though non-food components also increased by a smaller margin. According to a survey conducted by Confederation of Zimbabwe Industries (CZI), capacity utilisation in 2018 was 48.2%, an increase of 3.1 percentage points from 45.1% in 2017. The increase was on account of import substitution and export promotion policies that were implemented. The actual areas where capacity utilisation increased are foodstuffs, tobacco, beverages as well as wood and furniture. Towards the end of 2018, Government pronounced the Transitional Stabilisation Programme (TSP) whose life cycle was set from October 2018 to December 2020. The TSP acknowledges policy reform initiatives to stimulate domestic production, rebuilding and transforming the economy to an Upper Middle Income status by 2030. This is expected to yield positive results for recovery of the economy through implementation of various austerity measures. The realisation of the TSP will be through implementation of short term quick-wins for the economy underpinned by adoption of, and strict adherence to, macroeconomic stabilisation policies.

1.3. Energy Market

The electricity sector continued to attract interest due to the opportunities created by abundant resources in the country. However, electricity licensees continue to face difficulties in securing affordable and long term funding for their projects. Interested investors raised the following issues:-

- Currency risk
- Off-taker credit risk due to viability challenges of the national utility, and
- Shortage of foreign currency which poses a risk on repayment of foreign loans acquired for purposes of developing the projects.

Investment in renewable energy is set to improve when Government launches the Renewable Energy Policy which will create a conducive environment for investment through the provision of new licensing mechanisms and incentives. Apart from improving the share of renewable energy in the overall energy mix

Continued

and addressing issues of Climate Change, this policy also focuses on driving cost effective implementation of sustainable energy sources, social up-liftment through community involvement; gender equality and employment generation. This is a positive development for the country's concerted efforts to improve power generation potential through strengthening the national energy mix through hydro, solar and coal based generation.

The petroleum sector also offers numerous opportunities in the development and expansion of the bio-fuels sector; the promotion of LPG for domestic and industrial use as well as infrastructure for LPG.

1.4. Electricity Regulation

In 2018, the Net Metering Regulations and Public Safety Regulations were promulgated. The other policy initiatives that were put in motion are the Minimum Energy Performance Standards of Domestic Electrical Appliances Regulations; the Energy Management Regulations; the Mini-grid Framework, Wind Assessment Study and the Grid Code. These will be finalised in 2019. The Authority sponsored research and development projects which were undertaken at various tertiary and research institutions. Some of the research projects included the solar powered barn for tobacco curing and an assessment of the hydro-kinetic potential of Zimbabwean rivers. The full results of these projects will be shared in 2019 and the recommendations appropriately implemented.

The state-owned utility Zimbabwe Power Company's (ZPC) power stations sent out 9 037 GWh which was 25% above the 2017 production mainly due to the increased water allocation at the Kariba Hydro power plant. The Authority remains concerned by the below expected performance of Hwange Power Station and the small thermal stations. The contribution of the IPPs reduced from 351 GWh in 2017 to 313 GWh in 2018 due to the stoppage of the Dema Emergency Power Peaking Plant. The Authority renewed the generation licence for Harare Thermal Power Station to accommodate the repowering project of the power plant which will result an increase in installed capacity by 40 MW to 120MW. In 2017, ZPC also applied for amendment of Bulawayo Power Station licence for purposes of accommodating the repowering project. The application was held in abeyance pending resolution of objections to the project which were raised by Bulawayo City Council. New generation licences issued in 2018 had potential capacity of 267.29 MW, which is disaggregated as 260.45 MW Solar PV and 6.84 MW Mini hydro

1.5. Petroleum Regulation

The petroleum sub- sector witnessed an increase in crude oil prices during the year, thus affecting the fuel prices in the country. Industry performance was hampered by suppressed supplies due to shortages of foreign currency to meet demand. This situation further strengthened the position taken by Government to increase production of bio-fuels as an import substitution strategy.

The licensing of Triangle Limited to complement the ethanol supplies from Green Fuel boosted ethanol stocks while plans are underway to ensure biodiesel production increases to viable levels. The price of LPG continued to be a challenge. Measures are due to be taken in 2019 to develop appropriate regulations as part of protecting the consumers. There was increased presence of field surveillance staff to ensure increased compliance in the sector. In terms of petroleum infrastructure compliance, a total of 560 sites were inspected in 2018 to assess compliance to petroleum infrastructure standards compared to 688 sites in 2017. The number of inspections is lower for 2018 due to the increased focus on re-inspections of sites with lower compliance rates at initial inspection. Consequently, the compliance rate for 2018 was 82.2% up from 80% in 2017.

A total of 942 fuel samples were tested nationwide in 2018 representing a 52% increase from the 617 samples tested in 2017. Overall, the compliance rate for all fuel retail sites was 98.3% in 2018 compared to 96.4% in 2017. A total of 488 service station operators and LPG fillers were trained across the country in 2018 up 16% from the 420 trained in 2017. The Authority was also invited by individual companies to train operators at their own premises. The highlight of the training calendar was the training of 10 000 Tongaat Hullet employees on safe use of LPG conducted by ZERA at the Chiredzi and Triangle Estates. While it is commendable that LPG usage has significantly increased, the product's price continued to be a challenge. Measures will be taken in 2019 to develop appropriate regulations as part of protecting the consumers while ensuring viability for importers and retailers.

1.6. Corporate Governance

The Authority reviewed its strategy to align it to the Transitional Stabilisation Programme (TSP) that is in line with the Second Republic's thrust. The TSP acknowledges the importance of energy security and measures were put in place to respond to the aspiration. A realigned strategy will inform the Authority's programs from 2018 to 2020. To achieve its realigned strategy, the Authority reformulated its vision to "The Regulator that promotes universal access to sustainable energy by 2030." During the year, the then Chief Executive Officer of the Authority, Dr. Gloria Magombo, was appointed as the Permanent Secretary for the Ministry of Energy and Power Development (MOEPD). Mr Edington Mazambani, the Finance and Administration Director was appointed as the Acting CEO. The Board met every quarter in terms of the approved Board Calendar to discharge it's mandate as outlined in the Energy Regulatory Authority Act. In particular, the

Board met to consider and approve licences in the petroleum and electricity sub-sectors, tariff applications and review the Authority's operations.

1.7. Finance and Administration

The Authority collected sufficient funds for operations and capital expenditure. Funds were raised mainly through Electricity levies and Petroleum license fees and investment income. A total income of $13 062 827 was realized in the year ended 31 December 2018 which is 42% above the income ($9 194 635) reported during the same period in 2017. Pursuant to the Energy Regulatory Authority Act, a total of $1 492 116 (being the surplus income from the electricity revenue account), was duly appropriated to the Rural Electrification Fund. During this year, the Bulawayo and Mutare Regional Offices were opened. The construction of the ZERA Head Office is progressing well and was 30% complete by 31 December 2018. The building is expected to be completed by 31 December 2019. In terms of human resources, the Authority ended the year with a staff complement of 56 disaggregated as 61% male and 39% female employees. Attracting female candidates for technical positions continues to be a challenge. However, in all of the Authority's vacancy announcements, qualified and competent women continue to be encouraged to apply.

1.8. Stakeholder Engagement

The Authority engaged key stakeholders during the year where issues of energy availability; challenges in the sector and proposals to improve the supplies and fair operations were discussed. Such engagements include meetings with the Minister of Energy and Power Development; Office of the President and Cabinet; Reserve Bank of Zimbabwe; energy suppliers; consumers and the general public. Consumer education continued across the country as part of inculcating safe and effective use of energy products and services while creating an appetite for renewable energy and alternative energy technologies. As part of demonstrating the feasibility of renewable energy in the country, two rural health centres were supported with solar PV systems. These interventions are serving as proof of the impact of off-grid power generation.

1.9. Regional Engagement

The Authority served its last term as the Chair of the Regional Electricity Regulators of Southern Africa (RERA). One of the term's highlights was the beginning of RERA's transformation from an Association to an Energy Regulatory Authority. ZERA also participated in various committees at regional level. However, foreign currency challenges hampered the Authority's participation in other regional engagements such as Regional Association of Energy Regulators of Eastern and Southern Africa (RAERESA) and African Forum for Utility Regulators (AFUR).

1.10. Way Forward

The Authority is alive to the critical role of safe, affordable and reliable energy to the economy. To that end, efforts will continue to be made to ensure all IPPs conform to the timelines of their projects. Monitoring of the fuel

Continued

industry will be amplified in light of isolated reports of deliberate adulteration and hoarding. Stringent measures will be taken against all the culprits. The Authority will continue to collaborate with all valued stakeholders to improve energy supplies and ensure sustainability of the sector. Indeed, as per its new vision, the Authority aspires to be The Regulator that promotes universal access to sustainable energy by 2030.

Dr. E. Khosa

2.0 Chief Executive Officer's Report

Edington T. Mazambani
Acting Chief Executive Officer

Overview

The following is an overview of the sector's operations from a regulatory perspective. It gives some insights into how the licensees performed against set target and measures taken to improve the sector in general.

2.1.1. Electricity sub-sector

There were improvements in terms of power supply as ZPC's plants generated 9,037 GWh during the year compared to 7,216 GWh in 2017. The 25% increase was attributed to improved water levels in Kariba Dam during the year. There was a significant decline from the IPPs in terms of their power production. By end of year, IPPs' had cumulatively generated 313 GWh compared to 351 GWh in 2017. Against this background, the country continued to tap into the regional market through imports to close the deficit.

Development of codes, regulations and standards constituted the core of electricity regulation during the year. This saw a number of standards being developed including 12 on solar water heating. The codes were on public display pending approval by the Technical Committee on Standards.

Technical audits were carried out during the year at some power generation and selected transmission sites. These include three distribution code audits that were conducted in the ZETDC's Eastern, Southern and Northern Regions. The three regions managed an average score of 56.3% in terms of compliance rate and this was way below the minimum expected rate.

Inspection and seizure of illegal lighting products continued during the year. As a result, lighting bulbs which could have potentially drawn 881kW were seized during the year and the culprits were charged. The Authority remains worried about the electricity related accidents that occurred during the year.

Out of the 63 accidents that were recorded, 30 were fatal. This figure is an increase from the 2017 where 39 accidents were recorded and 20 were fatal. Stringent measures will be put in place to ensure compliance by all concerned parties.

In terms of new power projects, 19 license applications were received with a potential total capacity of 510.99MW. During the year, 10 licenses were approved for licensing and these have a total capacity of 188.38 MW while 13 licenses were issued during the year with a capacity to generate 265.12MW. The project promoters continue to raise the issue of financing the projects as the major challenge.

2.1.2. Petroleum Sub-sector

Though the sector experienced intermittent supply towards end of year due to foreign currency challenges, fuel imports increased by 20.9% for diesel and 34% for petrol compared to 2017. In 2018, the country consumed 921 million litres of diesel while in 2017 it was 761 million litres. For petrol, the country consumed 616 million litres compared to 443 million litres in 2017.

In terms of fuel prices, areas further away from the fuel sources had the highest fuel prices whereas Harare and Mutare had the lowest prices. Prices of LPG gradually increased during the year to close the year at around $3.71/kg. One of the reasons proffered by most LPG importers was the cost of foreign currency.

A study on vehicle inventory in Zimbabwe to establish its overall fuel economy was completed. Part of the recommendations include development of policy

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Out of the 63 accidents that were recorded, 30 were fatal. This figure is an increase from the 2017 where 39 accidents were recorded and 20 were fatal. Stringent measure will be put in place to ensure compliance by all concerned parties. in terms of new power projects, 17 licence applications were received with a potential total capacity of 360.39MW. During the year, 13 licenses were approved for licensing and these have a total capacity of 228.39 MW while 13 licenses were issued during the year with a capacity to generate 265.12MW. The project promoters continue to raise the issue of financing the projects as the major challenge.

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A study on vehicle inventory in Zimbabwe to establish its overall fuel economy was completed. Part of the recommendations include development of policy measures to reduce fuel consumption by improving fuel economy. This will go a long way towards enforcement of energy efficiency in the motor industry. In terms of increasing quality of service, a framework for the labelling and grading of fuel retail sites was completed and is awaiting promulgation of the enabling regulations to be effected.

2.1.3. Stakeholder Engagement

High level engagements continued during the year with MOEPD, and potential investors in the energy industry whose main interests lie in establishment of solar power stations. Consumer education and awareness were done during the year in small towns. This saw in-depth orientations and education on safe use of energy products and services being rolled out in Plumtree, Beitbridge and Gwanda communities. Engagement, with associations of industry, commerce, mining, farmers and consumers were fruitful as evidenced by the issues that were shared between the associations and the Authority during their quarterly meetings. Media coverage of the Authority and energy sector in general remained positive and objective. A number of live radio programs were held to address topical issues such as fuel challenges and power supply. The Authority supported people living with albinism with sun screens, paid fees for students on scholarships and supported installation of solar PV systems at two rural health centres in Buhera and Jocholo. These interventions were in line with ZERA's Corporate Social Responsibility policy.

2.1.4. Finance and Administration

During the year ended 31 December 2018, the Authority funded operations from the cash flow generated from operating activities. The electricity sub-sector receipts in the year under review improved significantly and the debt owed by this sector for the year ended 31 December 2018 was $20, 429, 528 from $24, 549, 374 in the same period in 2017. The shortage of foreign currency experienced during the year resulted in the Authority failing to procure tools and equipment and this resulted in failing to execute some of the planned activities. As at 31 December 2018, a total of USD203, 331 was owed to foreign suppliers who had supplied goods and services on credit.

2.1.5. Rapid Results Approach Initiative (RRI)

The Authority responded to the Government's call for Rapid Results Approach Initiative within the 100 days cycle. The Initiative requires organisations to make monthly progress reports to their parent ministries and ultimately to the Office of the President and Cabinet on specific high value 100 day cycle projects. ZERA's major RRI Projects for 2018 were the finalisation of the Multi Year Tariff Determination Framework and the Competitive Bidding for New Generation Capacity.

2.1.6. Overall Organisational Performance

A high level of achievement of all the five performance categories of outcomes, outputs, service delivery standards, management of resources and organizational development as well as cross-cutting national priorities recorded weighted scores of at least 80% of overall performance achievement for the budget year. The overall weighted annual performance attainment of 88.2% against a set target of 70% reflects a high level of commitment by the Authority's employees to deliver superior results in a highly volatile macro-economic operating environment which was prevailing in the budget year. These results reflect a slight improvement of overall organization performance for the budget year by 0.7% compared to the previous year's overall organizational performance achievement of 87.5%. The Authority continued to pursue ZW ISO 9001:2015 QMS certification in a bid to continually improve performance and this is expected to come to fruition in first quarter of 2019.

2.1.7 Regional Engagement .

The Authority continued to play an active role in various sub committees at the regional engagement in particular RERA events. ZERA also hosted Botswana Energy Regulatory Authority (BERA) and Malawi Energy Regulatory Authority (MERA) during the year who visited Zimbabwe on a regulatory authority benchmarking exercise.

Solar Parabolic cooker on display at one of the provincial shows ZERA exhibits at (Bindura Agricultural show)

3.0 Board Members

Dr. Ester Mpandi-Khosa
Board Chairperson

Dr. Irene Jeke
Vice Board Chairperson

Rtd. Air Marshal Henry Muchena
Board Member

Eng. Betty Nhachi
Board Member

Eng. Todd Garfield Nkiwane
Board Member

Commissioner Ted Muzoroza
Board Member

Dr. S. Ziuku
Board Member

Mr. Edington T. Mazambani
(Acting CEO and Ex-Officio Board Member)

4.0 Executive Management

Edington Mazambani
B. Acc (Hon) UZ, B. Compt (Hon) UNISA, CA (Z)
Acting Chief Executive Officer.

Eng. Misheck Siyakatshana
BSc. (Eng) Hons(UZ), MBL(Unisa), MZweIE, Pr Eng
Technical Director

Jacqueline Mupamhanga
LLBs (UZ)
Legal and Corporate Secretary

N. Ranga
B. Comm Accounts GZU, CIMA, CIS,MBA -ZOU
Acting Finance and Administration Director

Learnmore Nechitoro,
MSc Economics, BSc Economics (UZ)
Senior Manager Economic Regulation

Charity Machimbidzofa
BL,(UZ) LLB (UZ) MSMCG (MSU) Senior Manager Monitoring and Evaluation

Rumbidzai Musiyiwa
(CA (Z), BCompt (UNISA), CISA, CIA, ACCA, CRMA MBL (UNISA)
Head- Internal Audit

5.0 ZERA Mandate

Board Members and Management toured Riverside Solar PV Power Plant in Mutoko

5.1. Mandate and Objectives

The Zimbabwe Energy Regulatory Authority (ZERA) derives its mandate from the Energy Regulatory Authority Act [Chapter 13:23] of 2011. The Act mandates ZERA to regulate the procurement, production, transportation, transmission, distribution, importation and exportation of energy derived from any energy source. ZERA is also responsible for licencing of all electricity and petroleum companies as provided for in the Energy Regulatory Authority Act [Chapter 13:23] of 2011, read together with the Electricity Act [Chapter 13:19] of 2002, the Petroleum Act [Chapter 13:22] of 2006 and subsequent amendments.

The key objectives of the Authority are:

i) To ensure increased access and security of energy supply.

ii) To promote and encourage energy efficiency both at utility and consumer levels.

iii) To promote the use of renewable energy and environmental protection.

iv) To regulate in a fair and transparent manner to encourage competition.

v) To create an effective authority that delivers its mandate and mission.

5.2. Functions of ZERA

The functions of the Zimbabwe Energy Regulatory Authority (ZERA) are outlined in the Energy Regulatory Authority Act (Chapter 13:23), Part II, section 4 (1) and have been grouped according to functionality, these are:

A. Regulation and Licensing

1.To regulate the procurement, production, transportation, transmission, distribution, importation and exportation of energy derived from any energy source ;

2. To exercise licensing and regulatory functions in respect of the energy industry ;

3. To ensure that prices charged by licensees are fair to consumers in the light of the need for prices to be sufficient to allow licensees to finance their activities and obtain reasonable earnings for their efficient operation ;

4. To establish or approve operating codes for safety, security, reliability, quality standards and any other sector related codes and standards for the energy industry or any sector thereof ;

B. Research and development

5. To promote, identify and encourage the employment and development of sources of renewable energy;

6. To undertake such other things which it considers is necessary or convenient for the better carrying out of or giving effect to the functions of the Authority.

7. To promote and encourage the expansion of the energy industry and the advancement of technology relating thereto;

C. Market Reform and Competition

8. To maintain and promote effective competition within the energy industry.

9. To create, promote and preserve an efficient energy industry market for the provision of sufficient energy for domestic and industrial use;

D. To increase access and security of supply

10. To promote the procurement, production, transportation, transmission and distribution of energy in accordance with public demand and recognised international standards ;

11. To ensure the maximisation of access to energy by consumers that is affordable and environmentally sustainable;

12. To promote coordination and integration in the importation, exportation and pooling of energy from any energy source in the SADC and COMESA region;

E. Energy efficiency and environmental protection

13. To advise and educate consumers and licensees regarding the efficient use of energy;

14. To assess, promote studies of and advise the Minister and licensees on the environmental impact of energy projects before licensing;

F. Key stakeholder advisory

15. To advise the Minister on all matters relating to the energy industry;

16. To establish appropriate consumer rights and obligations regarding the provision of energy services;

17. To arbitrate and mediate disputes among and between licensees and consumers;

18. To represent Zimbabwe internationally in matters relating to the energy industry;

5.3. Regulated Sectors

5.3.1. Electricity Sub-Sector

The electricity supply industry (ESI) is currently dominated by a Government owned utility, Zimbabwe Power Company (ZPC) and Zimbabwe Electricity Transmission & Distribution Company (ZETDC). ZPC is mandated to construct, own, operate and maintain power generation stations for the supply of electricity. It currently manages four coal-fired stations which are Hwange, Bulawayo, Munyati and Harare thermal stations, and one hydro power station, Kariba South Power Station.

ZETDC carries out the system/network operator function. It is responsible for transmission of electricity from the power stations, the distribution of electricity as well as its retailing to the end users. ZETDC also conducts trade at regional level through the Southern African Power Pool (SAPP).

There are some independent power producers who also operate through production for own consumption or for trading.

5.3.1.1. Electricity Licensing

ZERA licenses any person or private companies that operates an electricity undertaking which generates, transmits, distributes, or retails electricity for commercial purposes in excess of 100 kW. ZERA issues the following licences subject to applicants satisfying the terms and conditions spelt out in the relevant Acts:

i. Generation licence authorises the licensee to construct, own, operate and maintain a generation station for purposes of the generation and supply of electricity to any transmission, distribution or supply licensee who purchases electricity for resale to consumers. A holder of a generation licence includes a generating company outside Zimbabwe that is entitled under an arrangement approved by the Authority to sell power to Zimbabwean licensees or consumers.

ii. Transmission and bulk supply licences authorises the licensee to carry out grid construction, operation, and maintenance of transmission facilities within Zimbabwe; and to carry out the operation of an electric power network.

iii. Distribution and retail supply licences authorises licensee to construct, operate and maintain a distribution system and facilities including the connection of customers for the purpose of receiving a supply of electricity; the installation, maintenance and reading of meters, billing and collection.

5.3.1.2. Validity Of Licences

All licences are valid for a period of up to a maximum of thirty (30) years subject to satisfying periodic audits conducted by ZERA.

5.3.1.3. Regulatory Services

ZERA undertakes the following services in the electricity sector:

• Technical audits
• Compliance audits
• Licensing of operators
• Tariff approval
• Research and development
• Investment promotion
• Maintaining a register of licensees
• Promotion and awareness of energy efficiency and renewable energy
• Light handed regulation on power project less than 100Kw

5.3.2. Petroleum Sub-Sector

The petroleum sub-sector in Zimbabwe comprises of private and state owned companies. The prices of fuels are regulated through the setting of maximum prices beyond which operators are not to exceed. ZERA regulates the sector through licensing determination of fuel prices; setting standards and specifications; fuel quality audits and compliance audits.

5.3.2.1. Petroleum licensing

ZERA licenses any persons or private companies involved in the production, procurement, retailing and wholesale of the following fuel products for commercial purposes in Zimbabwe:

• Petrol, Diesel, Paraffin;
• Denatured ethanol and ethanol blends
• Liquefied Petroleum Gas

ZERA issues the following types of licences subject to applicants satisfying the terms and conditions:

i. Production licence authorises the licensee to construct, own, operate and maintain facilities for the production of petroleum products

ii. Procurement licence authorises the licensee to import fuel for the purpose of reselling it in bulk to one or more licensees.

iii. Wholesale licence authorises the licensee to purchase bulk petroleum products from any procurement licensee and production licensee.

iv. Retail licence authorises the licensee to supply petroleum products to customers.

5.3.2.2. Validity Of Licences

All licences are valid for a period of one (1) calendar year after which the licence may be renewed subject to satisfying periodic audits conducted by ZERA except for LPG which is for two (2) calendar years.

5.3.2.3. Regulatory Services

ZERA undertakes the following services in the petroleum industry:

• Infrastructure audits
• Fuel quality monitoring
• Price determination
• Price enforcement
• Licensing of operators
• Training and demonstrations on safe use of products among operators and consumers
• Setting standards and continuous improvements

5.4. KEY POLICY DEVELOPMENTS AND STRATEGIC CHANGES

The Authority carried out its two Year (2019-2020) Strategic Planning Review during the year, guided by the Ministry of Energy and Power Development (MOEPD)'s strategic plan review process and outcome for the same period. Both the MOEPD and ZERA 2-year strategic plans were aligned to the Government's Transitional Stabilisation Programme (TSP) which is running from October 2018 to December 2020.

The Authority's strategic review process contributes to the Second Republic's Vision 2030 which is, "Towards a Prosperous and Empowered Upper Middle-Income Society by 2030", as well as the country's new socio-economic blue print for 2018 to 2020, the TSP. The alignment compels the Authority to initiate projects, programs and structures that increase capacity and access to energy by all relevant stakeholders.

Part of the review and alignment process involved interrogation of the Authority's vision. This culminated the revision from "To be a Leader in energy regulatory excellence by 2025 to "To be the Regulator that promotes universal access to sustainable energy by 2030". The change was necessitated by the need to have an aspirational dream that resonates with the national thrust.

A stakeholder and client needs analysis was conducted again during 2018 to identify their aspirations and expectations from the Authority. This analysis was extended to Government ministries and departments. The feedback was analysed based on the extent to which it impacts on policy makers, stakeholder and client perceptions, decision making, activities and responses. This process will also enable the Authority to develop a proactive and responsive service charter and tangible outcomes for 2019 and beyond.

Having reviewed the Authority's vision, functions, key result areas and programmes, the following were adopted as the Key Result Areas for the 2019-2020 strategic period:

a. Compliance and Enforcement
b. Increased Access and Security of Energy Supply
c. Effective Institution
d. Energy Efficiency, Renewable Energy and Environmental Protection
e. Key Stakeholder Advisory

Hon - S.K. Moyo, Minister of Energy and Power Development officially opened ZERA's Bulawayo Regional Office

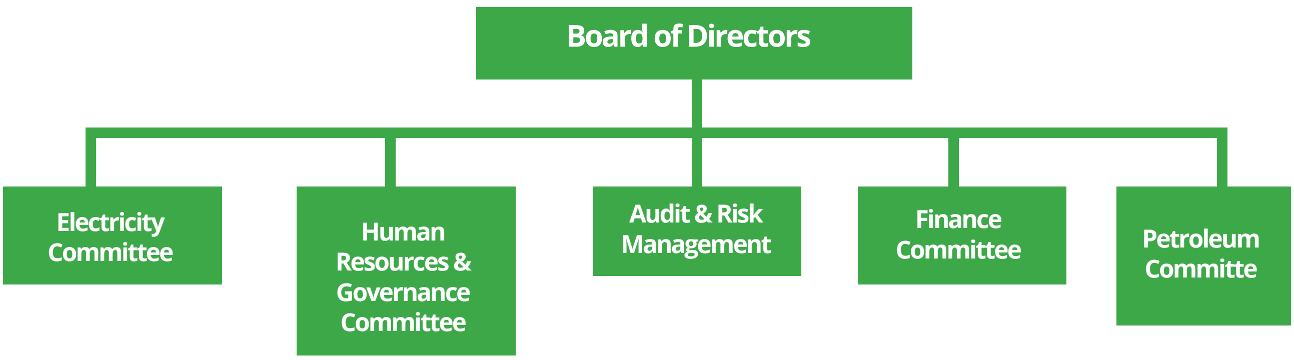
6.0 Corporate Governance Report

(Seated from left) Dr. E. Khosa (Board Chairperson), Eng. B. Nhachi and Dr. I. Jeke (Vice Chairperson) (Standing from left) Dr. S. Ziuku; Air Marshal H. Muchena, Mr. E. Mazammbani (ACEO and Ex-Officio), Eng. T. G. Nkiwane, Commissioner T. Muzoroza

6.1 Corporate Governance Adherence Status

The Board established a robust governance structure to enable the Authority to deliver its mandate. In particular, the Board is committed to achieving high standards of Corporate Governance. All Board Frameworks were reviewed to align them with the Public Entities Corporate Governance Act [Chapter 10:31] and the Public Entities Corporate Governance (General) Regulations, 2018 published in Statutory Instrument 168 of 2018

The Board continued to comply with its Code of Ethics which provides guidance on ethical issues and helps foster a culture of honesty and accountability. In line with the Code of Ethics and to ensure effectiveness on the part of the Board, each Director is required to notify the Board of any actual or potential conflicts of interest and to update the Board of any changes on an ongoing basis. A Register of Directors' Interests is maintained wherein Board Members disclose any interests with regard to matters to be considered at a meeting of the Board or any other directorships.



In terms of section 169 of the Public Entities Corporate Governance Act [Chapter 10:31], the Board is required to undertake formal and rigorous annual evaluation to assess performance and effectiveness as a whole as well as the performance and effectiveness of Board Committees, individual directors and the Chief Executive Officer. In compliance with this statutory requirement, Board evaluation was conducted in 2018 and the overall performance of the Board was rated highly.

The Authority has in place Board continuous development and stakeholder engagement programs, to ensure that the Board keeps up to date with best practices in Corporate Governance as well as sector developments. In this regard, the Board continued to meet stakeholders as per the Stakeholder Engagement Framework. The Board also met with the Minister of Energy and Power Development in fulfilment of the requirements of the Public Entities Corporate Governance Act [Chapter 10:31].

In terms of capacity building, the Board attended relevant training programs on regulation as well as refresher trainings on Corporate Governance. A number of tours were also conducted in respect of licenced power projects and corporate social investment projects by the Authority. The Corporate Governance activities as at 31 December 2018 was as follows:

6.2. Board Meetings

Section 33(1) of the Public Entities Corporate Governance Act [Chapter 10:31] provides that Board meetings should be held at least once every three months. Scheduled Board meetings were held quarterly in accordance with a Board Calendar which was approved at the end of 2017. Special meetings were also conducted as and when necessary so as to address urgent issues arising outside the scheduled Board meetings. An Annual General Meeting was held in June 2018 to approve the financial statements and Annual Report for 2017.

6.3. Board Committees

The Board Committees continued to play a crucial role in assisting the Board in discharging its mandate. The Board has established and delegated specific roles and responsibilities to five Committees which are guided by terms of reference as approved by the Board and subject to review on an annual basis or as necessary. The Committees are chaired by non-executive Directors of the Board with Executive Management attending meetings by invitation. The Committees meet quarterly in accordance with their terms of reference. The Committee Chairpersons update the full Board on agenda items covered and recommendations made to the Board by their respective committees.

The five Committees of the Board are:

a) Petroleum Committee

The objective of the Committee is to discharge the Board's responsibilities with regard to delegated petroleum sub-sector regulatory matters in terms of the Energy Regulatory Authority Act, 2011 [Chapter 13:23] and the Petroleum Act [Chapter 13:22].

b) Electricity Committee

The objective of the Electricity Committee is to discharge the Board's responsibilities with regard to delegated electricity sub-sector regulatory matters in terms of the Energy Regulatory Authority Act, 2011 [Chapter 13:23] and the Electricity Act [Chapter 13:19].

c) Finance Committee

The objective of the Finance Committee is to ensure that Management has created and maintained an effective environment for financial management and procurement processes in adherence with international financial reporting standard, Public Finance Management Act and other relevant statutes and standards.

d) Audit and Risk Management Committee

The Audit and Risk Management Committee ensures that management has created and maintained an effective environment for internal control processes in line with Public Entities and Corporate Governance Act and Board approved policies and procedures.

e) Human Resources and Governance Committee

The objective of the Human Resources and Governance Committee is to ensure that the Authority both discharges its responsibility to attract, motivate, develop and retain the required staff competencies and does so in line with the Strategic Plan that embodies not only sound commercial principles relevant to a Regulator, but also good corporate governance best practice.

The Board Committees were constituted as below.

Table 1: Board Committees

Finance Committee	Petroleum Committee	Electricity Committee	Human Resources & Governance Committee	Audit and Risk Management Committee
i. Dr. I. Jeke*	i. Eng. B. Nhachi*	i. Eng. T. Nkiwane	i. Commissioner T. Muzoroza*	i. Rtd. Air Marshal H. Muchena*
ii. Rtd. Air Marshal H. Muchena	ii. Dr. I. Jeke	ii. Eng. B. Nhachi	ii. Eng. T. Nkiwane	ii. Eng. B. Nhachi
iii. Eng. T. Nkiwane	iii. Commissioner T. Muzoroza	iii. Rtd. Air Marshal H. Muchena	iii. Dr. I. Jeke	iii. Commissioner T. Muzoroza
iv. Dr. E. Khosa	iv. Dr. S. Ziuku	iv. Dr. S. Ziuku	iv. Dr. E. Khosa	iv. Dr. S. Ziuku

Table 2: Attendance Register

BOARD MEMBER	BOARD OF DIRECTORS' MEETINGS (4)	SPECIAL BOARD OF DIRECTORS' MEETINGS INCLUDING THE 2017 AGM (5)	HR & GOVERNANCE COMMITTEE (4)	PETROLEUM COMMITTEE (5)	ELECTRICITY COMMITTEE (5)	FINANCE COMMITTEE	AUDIT & RISK MGT. COMMITTEE (5)	STAKEHOLDER ENGAGEMENT MEETINGS/ WORKSHOPS	BOARD MEMBERS' MEETING WITH INTERNAL AUDIT (1)	TOTAL
Dr. E. Khosa	4	3	4	N/A	N/A	5	N/A	6	1	23
Dr. I. Jeke	4	5	4	5	N/A	5	N/A	5	1	29
Rtd. Air Marshal H. Muchena	3	5	N/A	N/A	5	5	5	5	1	29
Eng. B. Nhachi	4	5	N/A	5	5	N/A	5	4	1	29
Mr. T. Muzoroza	3	5	3	4	N/A	N/A	5	5	1	26
Eng. T. Nkiwane	3	5	4	N/A	5	5	N/A	6	1	29
Dr. Ziuku	2	4	N/A	5	5	N/A	4	3	1	24

6.4. Prosecution and Litigation Cases

6.4.1. Petroleum sub sector Prosecution Cases

During 2018, ZERA successfully prosecuted 78 cases. 38 of the cases involved offences for selling petroleum products without a license in contravention of section 29 of the Petroleum Act [Chapter 13:22] whilst 40 involved the selling of contaminated diesel or petrol in contravention of the Petroleum (Fuel Quality) Regulations, 2013. Those who were convicted were ordered to pay fines ranging from $50 to $500. In addition to the fines levied for selling contaminated fuel, the court ordered forfeiture or purification of the contaminated petroleum product. There was an increase in the number of cases handled from 59 cases in 2017 up to 78 in 2018.

6.4.2. Electricity sub sector Prosecution Cases

Fifty five (55) prosecution cases were handled involving the contravention of the Electricity (Inefficient Lighting Ban and Labelling) Regulations, 2017. Fines ranging from $20 to $2 000 were imposed on conviction. In most cases, the inefficient lighting products, usually incandescent bulbs were destroyed except in two cases were the court ordered that the bulbs be returned to their country of origin. The increased surveillance of the lighting products market will weed out both sub-standard and banned products leading to more dominant use of energy efficient products with a corresponding decrease in energy use.

The Authority estimates that if the whole country were to switch to LED lighting for all sectors, savings in the order of 300MW would be realized. A concerted effort is therefore required by all concerned players to act on this low hanging fruit which has huge potential to stave off load shedding and also reduce the electricity import bill.

6.4.3. Litigation Cases

The Authority handled six litigation cases in 2018. One case was finalised where an operator challenged ZERA's powers to close its site but the court ruled that the Authority was empowered to close a site for contravention of the Petroleum Act. Five of the cases are pending at various stages before the Administrative, High and Supreme Courts. Two of the pending cases involve labour disputes whilst the other three pertain to regulatory matters.

ZERA sponsored the Zimbabwe Institute of Engiineers' Women in Engineering category.

6.5 Internal Audit Report

The year 2018 marked the evolution of the Internal Audit function; the function experienced the following key changes:

• Appointment of the Internal Auditor, bringing the staff complement to three auditors.

• Implementation and initial utilisation of the TeamMate audit management software in the performance of an extensive risk assessment, which formed the basis of the 2019 annual audit plan.

•Change of strategy from a departmental audit approach to a rigorous process approach as well as enforcement of the Audit Recommendation Implementation Framework.

6.5.1. Assurance Activities

The following audit engagements were conducted during the year 2018 in line with the Revised 2018 Internal Audit plan:

Table 3: Audit Engagement

Audit Engagement		Audit Observations			
		Total	High Risk	Medium Risk	Low Risk
ii.	Petroleum Licensing	28	22	5	1
iii.	Mutare Regional Office	27	23	2	2
iv.	Legal Department	38	34	-	4
v.	2018 Year End Stock Take	10	8	2	-
Follow – Up Audit Engagement		**Total**	**Implemented**	**Partially Implemented**	**Not Implemented**
vi.	Information Technology General Controls Review	52	17	19	16
vii.	Electricity Technical	51	22	13	16
iv.	Legal Department	38	34	-	4

6.5.2. Consulting Activities

Internal Audit took the initiative to provide advice to management on matters of concern observed during the year. The matters included the unavailability of data from the SAP system for analysis, the need for re-performance of penetration testing before launching the online license portal, the importance of adopting best practice project management techniques in the rolling out of the regional offices as well as the requirement to raise awareness on the whistle blowing system.

6.5.3. Stakeholder Engagement Activities

Internal Audit continued to raise the awareness of the role of Internal Audit through the following initiatives during 2018:

• Formalisation of management engagement during the annual audit planning process.

• Implementation of a management confirmation mechanism that allows for management to confirm their action plans and commitment thereof.

• Presentation of the governance trends updates to the Board on a quarterly basis. The Board's attention was drawn to the Auditor General's prior year public sector audit reports, the upcoming trend of integrated reporting, the Public Entities Corporate Governance Act and emerging trends in data culture.

• Conducted the first meeting with the Board independent of executive management as required by the Internal Audit Charter.

• Solicitation of feedback on the audit processes through the auditee satisfaction surveys after each engagement.

• Introduction of the Implementation Award, which is given to the department with the highest implementation rate of audit issues. The Petroleum Technical team scooped the award for the year 2017.

Recognition for Implementing Internal Audit Recommendations

The Award winning Petroleum Technical team, the Petroleum Committee Chairperson (holding shield) and ZERA Board of Directors

The development of the Combined Assurance Framework and launching of the Quality Assurance Improvement Programme is earmarked for 2019. Continuous professional development for the Internal Audit personnel is focused on the technical aspects of energy regulation and audit reports are expected to illustrate linkage of audit observations to the organisational strategy hence their impact on achievement of the Authority's mandate.

7.0 Operational Overview
7.1 Licensing Electricity Sub-sector

7.1.1 New Applications for 2018

During the year, the Authority received 18 applications comprising of 14 solar photovoltaic projects and four mini hydropower projects. Out of the 18 new electricity generation licences, one was for own consumption.

7.1.2 Licences Amended

The Authority amended eight Licences during the year All the licences amended were for electricity generation and among them four Solar PV power plants, three Mini Hydro plants and one coal-fired power plant.

The amendments were mainly necessitated by delays in project implementation.

7.1.3 Licenses Issued in 2018

New licences issued had potential of 267.12 MW disaggregated as 260.45 MW Solar PV and 6.84 MW mini hydro power plants.

The table below give details of the projects licenced in the year 2018.

Table 4: Licensed Electricity projects, 2018

No.	NAME OF LICENSEE	TYPE OF LICENCE	NAME OF POWER STATION	CAPACITY (MW)	TECHNOLOGY	LOCATION
1.	Harava Solar Park (Private) Limited	Generation	Harava Solar Park	20 MW	Solar PV	Bwoni Village in Dema, Seke Communal Lands, Mashnaland East Province
2.	Tsanga Power Stations (Private) Limited	Generation	Tsanga A Power Station	2.69 MW	Mini hydro	Tsanga River, Nyanga District, Manicaland Province
3.	Tsanga Power Stations (Private) Limited	Generation	Tsanga C Power Station	2.15 MW	Mini hydro	Tsanga River, Nyanga District, Manicaland Province
4.	Pito Investments (Private) Limited	Generation	Mvuma Solar Farm	25 MW	Solar PV	Mvuma, Chirumanzu Rural District Council, Masvingo Province
5.	Energywise Equipment (Private) Limited	Generation	Vungu Solar Power Station	30MW	Solar PV	Vogelstruis Randt Farm, Vungu Rural District, Lower Gweru, Midlands Province
6.	Padenga Holdings Limited	Generation	Nyanyana North Soplar Power Plant	0.33	Solar PV	Nyanyana North, Kariba ,Mash West
7.	Africa Oracle Solar Generation Company (Private)	Generation	Chivhu Solar Generation Plant	25 MW	Solar PV	Antelope Estate, Chikomba District, Mashonaland East
8.	Econet Wireless (Private) Limited	Generation	Econet Willowvale Solar Plant	0.45	Solar PV	8 Earl Road, Willowvale Industrial Area, Harare Province
9.	Acacia Energy Company (Private) Limited	Generation	Chipangayi Retpark-1 PV Solar Power Station	50 MW	Solar PV	Chipangayi Growth
10.	Rusitu Power Corporation (Private) Limited	Generation	Rusitu Power Station	1 MW	Mini-Hydro	Nyahode River of Rusitu in Nyabanga area of Chimanimani District, Manicaland
11.	Riverside Power Station (Private) Limited	Generation	Riverside Power Station Phase II	7.50 MW	Solar PV	Musvaire, Mutoko, Mashonaland East
12.	Mvura Dam (Private) Limited	Generation	1MW Odzi-Nyakupinga Power Station	1 MW	Mini Hydro	Confluence of Odzi and Nyakupinga Rivers Minnehaha Area, Nyanga District Manicaland
13.	Zimbabwe Power Company	Generation	100MW Munyati Solar Plant	100 MW	Solar PV	Munyati Estate, Midlands Province

7.1.4. Progress of licensed IPPs

The table below shows the progress of licenced projects as at 31st December 2018.

Table 5: Progress of licenced IPPs, 2018

POWER PROJECTS PROGRESS			
Stage of Development	Licenced Companies	Name of Power Station	Capacity (MW)
Stage 1 - Concept/Pre-feasibility stage			
Stage 1a- Concept/ Prefeasibility (completion of all activities required to define projects for full feasibility	i. Sengwa Power Station (Private) Limited	Sengwa Power Station	2 400
	ii. Wild Bush Investments (Private) Limited	Mutambara Mini Hydro Power Plant	1.6
	iii. Africa Oracle Solar Generation Company (Private) Limited	Chivhu Solar Generation Plant	25
	iv. Mvura Dam(Private) Limited	Odzi-Nyakupinga Power Plant	1
Sub Total			**2 427.6**
Stage 1b-Feasibility and technical studies	v. Manako Power (Private) Limited	Osborne Dam Power Plant	2.5
	vi. Southern Energy (Private) Limited	Shangano Power Station	600
	vii. Acacia Energy Company (Private) Limited	Chipangayi Retpark -1 PV Solar Power Station	50
	viii. Sinogy Power (Private) Limited	Sinogy Power Plant	175
	ix. Yellow Africa (Private) Limited	Ntabazinduna Power Plant	50
	x. The Solar Group (Private) Limited	Midlands Solar Photovoltaic Farm	50
	xi. Solarwise Energy(Private) Limited	Triangle PV Plant	50
	xii. Indo Africa Power (Private) Limited	Indo Africa Mutorashanga Solar Power Plant	10
	xiii. Eastern Hydro and Electricity Supply Company (Private) Limited	Odzani A Power Plant	2.4
	xiv. Energywise Equipment (Private) Limited	Vungu Solar Power Station	30
	xv. Pito Investments (Private) Limited	Mvuma Solar Plant	25
	xvi. Zimbabwe Power Company	Gwanda Solar Plant	100
	xvii. Zimbabwe Power Company	Munyati Solar Plant	100
Sub Total			**1 244.90**
Stage 2 -Feasibility/Proof of bankability			
Stage of Development	**Licenced companies**	**Name of Power Station**	**Capacity (MW)**
Completion of all activities to prove project bankability including EPC contract and PPA approval	i. Lueven Investments (Private) Limited	Lueven Solar Plant	10
	ii. Utopia Power Company (Private) Limited	Utopia Solar Power Station	15
	iii. Plum Solar (Private) Limited	Wartrail Power Plant	5
	iv. De Green Rhino Energy (Private) Limited	Rufaro Solar Farm I	50
	v. Shilands Enterprises(Private) Limited	Shilands Power Plant	**345**
	vi. Great Zimbabwe Hydro (Private) Limited	Shilands Power Plant	345
	vii. Zimbabwe Power Company	Great Zimbabwe Hydro Power Plant	5
	viii. Per Group Ventures (Private) Limited	Girezi Power Plant	30
		Lusulu Power Plant	2 000
Sub Total			**2 460**

Stage 3 Funding			
	Licenced Companies	Name of Power Station	Capacity (MW)
	i. Richaw Solar Tech (Private) Limited	Sunset Technologies Solar Plant	5
	ii. Riverside Power Station Phase II (Private) Limited	Roverside Power Station Phase II	7.5
	iii. TD Energy (Private) Limited	Norton Solar Plant	40.8
Sub Total			**53.3**
Progress of all activities to project commissioning	**Licenced Companies**	**Name of Power Station**	**Capacity (MW)**
	i. Centragrid (Private) Limited	Centragrid Power Station	25
	ii. Tsanga Power Stations (Private) Limited	Tsanga A Power Station	2.69
	iii. Tsanga Power Stations (Private) Limited	Tsanga B Power Station	2.06
	iv. Tsanga Power Stations (Private) Limited	Tsanga C Power Station	2.15
	v. Rusitu Power Corporation (Private) Limited	Rusitu Power Station	1
	vi. Harava Solar Park (Private) Limited	Harava Solar Park	20
	vii. Solgas (Private) Limited	Cross Mabale Power Plant	5
	viii. Hwange Electricity Supply Company (Private) Limited	Hwange Power Station Stage III	600
	ix. Econet Wireless (Private) Limited	Econet Willowvale Solar Plant	0.45
Sub Total			**658.35**
Stage 5 - Operational			
Operating	**Licenced Companies**	**Name of Power Station**	**Capacity (MW)**
	x. Nyangani Renewable Energy (Private) Limited	Duru Power Station	2.2
	xi. Nyangani Renewable Energy (Private) Limited	Nyamingura Power Station	1.1
	xii. Pungwe Power Station (Private) Limited	Pungwe A Power Station	2.75
	xiv. Pungwe B Power Station (Private) Limited	Pungwe B Power Station	15.25
	xv. Hippo Valley Estates Limited	Hippo Valley Estates Power Station	33
	xvi. Triangle Estates Limited	Triangle Power Station	45
	xvii.Green Fuel (Private) Limited	Green Fuel Ethanol Power Plant	18.3
	xviii. Hauna Power Station (Private) Limited	Hauna Power Station	2.3
	xix. Kupinga Renewable Energy (Private) Limited	Kupinga Power Station	1.6
	xx. Bonemarrow Investments (Private) Limited	Claremont Power Station	0.3
	xxi. Riverside Power Station (Private) Limited	Riverside Power Station	2.5
	xxii. Nottingham Estates(Private) Limited	Nottingham Estates	2.25
	xxiii. Padenga Holdings Limited	Nyanyana North Solar Plant	0.33
	xxiv. Kariba Hydro Power Company (Private) Limited	Kariba Hydro Power Plant	300
Sub Total			**430.636**

Stage 5a – Commissioned but non-operational			
Not operating	**Licenced Companies**	**Name of Power Station**	**Capacity (MW)**
	i. Border Timbers (Private) Limited	Border Timbers Sawmill Generation Plant	0.5
	ii. Sakunda Holdings (Private) Limited	Dema Power Station	200
Sub Total			**200.5**
GRAND TOTAL			**7 475.286**

Eng. Ian McKersie, the Managing Director of Riverside Solar Power Plant dissussing with Mr. Learnmore Nechitoro, Senior Economic Regulation Manager during a tour of the Power plant

7.1.5. Licenses cancelled

The Authority continued to review the performance of licensed projects against their license conditions. Generation licenses for China Africa Sunlight Energy and Immaculate Technologies (Private) Limited were cancelled due to failure to adhere to license conditions. The Authority also reversed the decision made to issue a licence to Uhuru Energy (Private) Limited due to failure to pay licence fees for development of the 50 MW Donnington West Solar PV Power Plant in Bulawayo.

7.1.6. Licence Application with Objections

In 2018, the processing of three licence applications were held in abeyance due to objections from members of the public. The projects are as follows:-

• On the Pelshong Investments licence application for development a 1 MW Odzani Falls Hydro Power Station on Odzani River in Mutasa, Manicaland Province objections were raised by residents in the area with the concern on the effects of the power plant on the Odzani Falls.

• The proposed 125 MW solar plant by South Pole Consulting (Private) Limited licence application was objected to because of encroachment onto common communal land;

• The development of the proposed 45 MW solar plant by Triangle Solar Systems (Private) Limited licence application was objected to on the basis of consent on the use of land.

7.1.7. Power Purchase Agreements and Tariffs

A few PPAs and tariffs were processed during the period of 2018 with three having been submitted to the ZERA Board for consideration. The Solar Group, Eastern Hydro & Electricity Supply Company and Harava were approved by ZERA. Three tariff applications that were approved in the previous years were revised by the Authority due to the IPPs failure to meet their milestones and initiate construction among other reasons. Plum Solar, DeGreen Rhino and Utopia were advised to re-negotiate their tariffs taking into consideration the technological improvements in solar that have seen the cost of setup reducing significantly.

7.2 Development Of Regulatory Environment (Electricity - Technical)

7.2.1. Regulations, Codes and Standards
7.2.1.1. Amended Regulations

a) The Electricity (Inefficient Lighting Products Ban and Labelling) Regulations (SI 21 of 2017)

The Inefficient Lighting Ban Regulations were amended to improve enforcement by providing for prohibition of display, storage and use of incandescent and other inefficient lighting and to prescribe penalties for failure to comply with minimum performance standards. These regulations also provide for penalties for misleading labelling on lighting and lighting packages.

7.2.1.2. Promulgated Regulations
a) Net Metering Regulations

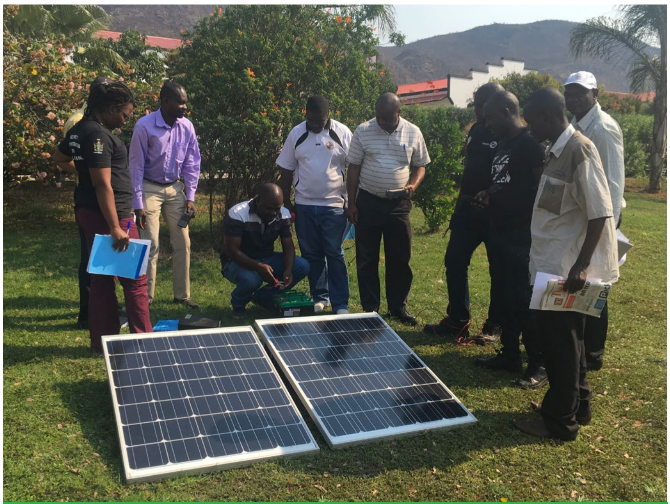
Net Metering Regulations were promulgated as Statutory Instrument 86 of 2018; Electricity (Net Metering) Regulations in June 2018 to promote the adoption of renewable energy.

The Regulations allow small-scale renewable solar PV roof-top generators to feed excess power into the grid. Every 1 kWh that the participant exports to the grid that Participant receives a credit of 0.9 kWh in the billing period. The net metering scheme is limited to ZETDC customers and the generating capacity will be limited to 1 MW.

The net metering scheme is expected to increase the penetration of cleaner solar PV generation. The utility, (ZETDC) is in the process of implementation of the Regulations and is obligated to accept prospective net metering participants. The Regulations incorporate technical guidelines for connection of participants onto the grid.

b) Electricity (Customer Supplied Prepayment Meter Scheme) Regulations – SI 85 of 2018

The Authority registered 17 Agents at the beginning of the year under a scheme where private companies are allowed to import prepaid meters from approved meter manufacturers and sell to consumers within prescribed conditions. Close to 58,000 meters were imported under this scheme during the year with 26,000 of the meters installed.



Solar Energy Systems Installation Training

c) Public Safety Regulations (Statutory Instrument 177 of 2018)

The Regulations were promulgated following an analysis of causes of electricity accidents over the last five years and are meant to promote the safety in the industry and of the public in particular. These regulations provide for;

- Enforcing Electricity Wiring of Premises Rules (ZWS400)
- Barring of unauthorized electricity connections and penalties for such connections.
- Setting minimum acceptable qualifications to do electrical work
- Ensuring compliance to approved engineering standards, work instructions by Utility staff and penalties in their individual capacity for failure to do so.
- Immediate remedying of unsafe electricity infrastructure conditions

The Authority has set out an awareness campaign for members of the public having held workshops with the Utility on the requirements of the Regulations. All fatal accidents are to be investigated and contributory breaches to these Regulations result in prosecutions under this statutory instrument as a deterrent measure.

7.2.1.3. Draft Regulations

a) Energy Efficiency

The Authority is developing two energy efficiency regulations, namely, the Minimum Energy Performance Standards of Domestic Electrical Appliances Regulations and the Energy Management Regulations. The regulations are meant to promote efficient use of energy through use of efficient appliances and practices.

A public stakeholder workshop was conducted in Harare during the year and three additional workshops will be held in 2019 in Mutare, Bulawayo and Gweru to solicit views of stakeholders.

b) Mini-Grid Framework

The Authority developed a draft mini-grid framework. The document is intended for use by mini-grid designers, contractors and users to achieve universal access to clean energy forms as articulated in SDG 7. It was crafted to attract increased investment in mini-grids employing renewable energy technologies in Zimbabwe. The document has derived the structure from the Regional Electricity Regulators Association of Southern Africa (RERA) mini-grid framework and the AFSEC solar system standard. The framework provides guidance on safety and reliability and general requirements for mini-grids.

c) Generation Code

The Draft Generation Code is under development and is now under review. The Code provides guidance for generation facilities in terms of operations, power quality, safety and reporting requirements.

7.2.1.4. Standards Formulation

7.2.1.4.1. Renewable Energy

In a bid to ensure quality for renewable energy products, the Authority spearheaded the development of biogas and solar water heater standards together with SAZ and other key stakeholders.

The following two-biogas standards were published:

a) ZWS 1020: Biogas Systems - Code of Practice Part 1: Design, installation, operation and maintenance of biogas systems. The standard provides requirements for design, installation operation and maintenance of stand-alone biogas systems in Zimbabwe.

b) ZWS 1020: Biogas Systems: Part 2- biogas micro-grids. The standard provides requirements for the supply of biogas to third parties via micro grid connected to biogas plant(s) with one or more users in pipes. This standard shall be read together with the ZWS 1020: Part 1- mentioned above.

The following Solar Water Heater standards were published and are now available for use in Zimbabwe:

Table 6: Renewable Energy Standards

No	STANDARD	TITLE
i.	ZWS 1017	Domestic solar water heaters – Mechanical qualification tests
ii.	ZWS 1016	Installation, maintenance, repair and replacement of domestic solar water heating systems
iii.	ZWS 1026	Fixed electric storage water heaters
iv.	ZWS 1025	Domestic storage solar water heating systems.
v.	ZWS ISO 9227:	Corrosion tests in artificial atmospheres -- Salt spray tests
vi.	ZWS ISO 6509-1	Corrosion of metals and alloys -- Determination of dezincification resistance of copper alloys with zinc -- Part 1: Test method
vii.	ZWS 1030	Energy Efficiency for Electrical and Electronic Apparatus
viii.	ZWS 1033	Thermostats for electric storage water heaters
ix.	ZWS 1027	Immersion heaters for electric storage water heaters
x.	ZWS 1032 Part 1	Domestic solar water heaters Part 1: Thermal performance using an outdoor test method
xi.	ZWS 1032 Part 2	Domestic solar water heaters: Part 2: Thermal performance using an indoor method
xii.	ZWS 1031	The installation, maintenance, replacement and repair of fixed electric storage water heating systems

The standards published are expected to be enforced through the solar water heating regulations, which are currently in draft form.

7.2.1.4.2. Electrical Products Standards Review

The Authority is participating in the review of the standard ZWS 556: 1997: 13A plugs, socket outlets, adaptors and connection units, Part 1 and Part 2. The standard is being reviewed to bring in line with technological advancements.

Consumer safety is currently compromised by the substantial quantity of counterfeit and unsafe electrical plugs and sockets on the market which are not compliant to standards.

7.2.2. Compliance Monitoring and Enforcement

7.2.2.1. Licensee Key Performance Indicators

i. The Authority approved the 2019 key performance targets for the Zimbabwe Power Company (ZPC) and the Zimbabwe Electricity Transmission and Distribution Company (ZETDC.

ii. The indicators are the benchmark for the 2019 reporting period and they have been set from initial submissions by licensees and subsequent revisions by the Authority in consultation with the licensees.

The licences' performance will be assessed quarterly and annually based upon the standards which are expected to improve the way business is conducted for the benefit of stakeholders and customers.

7.2.2.2. Distribution Code Compliance Audits

Three Distribution Code compliance audits were conducted out at three ZETDC regions, namely Eastern (June 2018), Northern (October 2018) and Southern (November 2018). These were the first audits to be done after promulgation of the Distribution Code and compliance rates are given in Table 7 below;

Table 7: ZETDC Regions Compliance Rates 2018

No	Region	Compliance Rate (%)
A	Eastern	43
B	Northern	76
C	Southern	50
Average		**56.3**

The audit scope covered a number of areas that form part of the distribution licence conditions. These, among others, are the asset management practices, quality of supply and service, key network operation, operations and maintenance, as well as physical network condition.

The current year findings common to all ZETDC regions were as given below;

Table 8: General Effects of Audit Findings 2018

No	Findings	General Effect
i.	Lack of customer application procedures	Poor customer service
ii.	Lack of customer application processing procedures	Poor customer service
iii.	No approved customer service standards available	Poor customer service
iv.	No customer protection standards being published	Poor customer service
v.	Deficient way leaves clearing	Unreliable supplies
vi.	Lack of numbering of equipment	Possible erroneous switching resulting in accidents
vii.	Poor power factor for key customers	High network losses
viii.	Unsecured infrastructure	Electrical accidents, theft
ix.	Unsealed meters	Pilferage of power resulting in reduced revenue
x.	Lack of Statutory inspections for installations lacking	Safety of customers compromised
xi.	No power quality monitoring	Poor quality supplies and possible damage to consumer equipment
xii.	None submission of key performance indicators	Hampers improvement of performance
xiii.	Voltage unbalance not being monitored	Damage to consumer equipment
xiv.	No reference to standards during procurement and when receiving material	Procurement of sub-standard material
xv.	Earth resistance testing not being done	Compromises operation of equipment and safety
xvi.	Customer Service Centre (Depot) Operational telephone calls are not being recorded and archived.	ZETDC becomes compromised in litigation cases where evidence from the such archive is required.
xvii.	All regions yet to implement maximum demand metering at points with capacities greater than 200kVA.	Lack of incentives to improve power factor and reduce network losses

xviii.	Engineering Instructions lacking in many aspects, not being updated, referring to obsolete equipment and practices in some instances.	Poor work standards.

Compliance notices have been issued to ZETDC to make representations on the findings and institute corrective measures within agreed timelines.

7.2.2.3. NRE Riverside 2.5MW Solar Plant Audit

An operational and compliance audit of NRE Riverside Plant was carried out in terms of sections 14 through to 16 of the Electricity (Licensing) Regulations; Statutory Instrument 103 of 2008. Observations were made on low voltage at the ZETDC primary substation, while voltage total harmonic distortions (THD) and flicker which were outside of limits on the customer generator side.

Compliance orders were issued to both ZETDC and NRE;

• ZETDC for low voltage at the primary 33kV substation and

• NRE for THD and flicker outside limits

7.2.2.4. Lighting Products Inspections

A total of 365 lighting products inspections were carried out during the year.

Enforcement statistics from the year are as below;

Table 9: Inefficient Lighting Retailer Inspections

Description	Quantum
Inspections	**365**
Non-Compliant	**196**
Compliance Rate	**46%**
Prosecution Cases	**157**
Seized Product (kW)	**881**

The target number of inspections were not met due to the inordinate time spent by Inspectors in court. Changes proposed in the revised regulations will enable the Authority to issue fines. One hundred and ninety-six (196) offenders of the SI were successfully prosecuted in Courts or fined by ZRP. The major problems of poor power factor and mislabeling remain prevalent. Mislabeled products which indicate higher wattage than they actually are, result in consumers complaints of dim lighting. The revised regulation make it an offence to provide a misleading label.

Three local manufacturers of high quality lighting products which meet the minimum energy performance standards in Zimbabwe were registered. These manufacturers however face foreign currency shortages and the Authority has submitted letters of support to the MOEPD for facilitation and onward transmission to the Reserve Bank for the availing of foreign currency.

7.2.3. Energy Efficiency Promotion

7.2.3.1. Maximum Demand Charge for Low Voltage Consumers

The Authority finalised the Maximum Demand (MD) metering tariff for low voltage consumers and this will be expected to be effective in 2019.

7.2.3.2. Proposed Reactive Energy Penalty for Poor Power Factor

The Authority finalised a reactive energy penalty tariff for MD customers and this is expected to be approved in 2019 after consultation with MOEPD.

The Authority will carry out an extensive consumer awareness campaign for consumers before the penalty is implemented.

7.2.3.3. LED Lighting Retrofit Demonstration Projects

The LED retrofit at Mpilo Hospital was successfully completed at a cost of US$95,000. The retrofit improved overall lighting at the hospital by over 60% and reduced the lighting related energy consumption by at least 75%. The Authority will in 2019 carry out a similar project at Chinhoyi General Hospital.

7.2.3.4. Energy Efficiency Training

The Authority sponsored training of 120 engineers (selected from energy intensive users) training them in Energy Management, Energy Auditing and Energy Measurement and Verification over two years.

Successful participants were certified to an international qualification and are expected to contribute significantly to energy efficiency initiatives in their various sectors.

7.2.4. Renewable Energy Promotion

7.2.4.1. Rural Hospitals Renewable Energy Demonstration Projects

The Authority carried out renewable energy solar PV and thermal retrofits at two rural clinics identified by the Ministry of Health and Child Care;

- Mutepfe Clinic in Buhera South District
- Mdlankunzi clinic in Lupane District.

These projects involved solar PV systems, solar water pumping and solar water heating technologies at the same time improving the health delivery services for the marginalised communities.

7.2.4.2. Wind Resource Assessment

The Authority, through the MOEPD engaged the International Renewable Energy Agency (IRENA) to provide technical assistance on wind resource assessment and capacity building for Zimbabwe. IRENA has so far completed appraisals for five sites at Mavhuradonha, Karoi, Plumtree, Shangani and Mtorashanga and submitted the reports to both MOEPD and ZERA.

The five (5) sites have been estimated to have potential of 250MW and ZERA is in the process of seeking to validate these with ground measurements so as to have bankable projects.

7.2.4.3. Solar PV Training

In a bid to build local capacity for solar PV systems design and installations in the country the Authority conducted four training workshops in Harare, Bulawayo, Gweru and Mutare respectively.
The training statistics for the year 2018 is summarized in the table below:

Table 10: 2018 Solar PV Design and Installation Training statistics

No	Venue	Training Period	Trained	Passed	Pass Rate
I	Harare	March 2018	39	28	72%
Ii	Bulawayo	May 2018	42	27	64%
Iii	Gweru	June 2018	30	16	53%
Iv	Mutare	September 2018	34	25	74%
Total(s)			**145**	**96**	**66%**

To date the Authority has trained 270 installers countrywide to give a good critical mass for solar PV systems design and installations in Zimbabwe.
The Authority has received positive feedback from some of the trained participants as they have gone on to form successful solar services companies after the training.

7.2.4.4. Registration of Renewable Energy Service Providers

The Authority assesses renewable energy service providers for registration as competent providers for convenience of the public. This ensures quality service and products in a market where standards are yet to be fully complied with. The assessment of renewable energy service providers is an ongoing process and the Authority maintains a database of these, which is regularly updated. The service providers are inspected and evaluated based on various technical and commercial criteria.

To date, 26 service providers have been approved for registration and posted on ZERA website (www.zera.co.zw).
The national distribution of the approved service providers is as shown in the figure below, with the majority based in Harare. This indicates the need to raise awareness to more service providers from around the country to register with the Authority.

RE Service Providers Distribution - Pie Chart

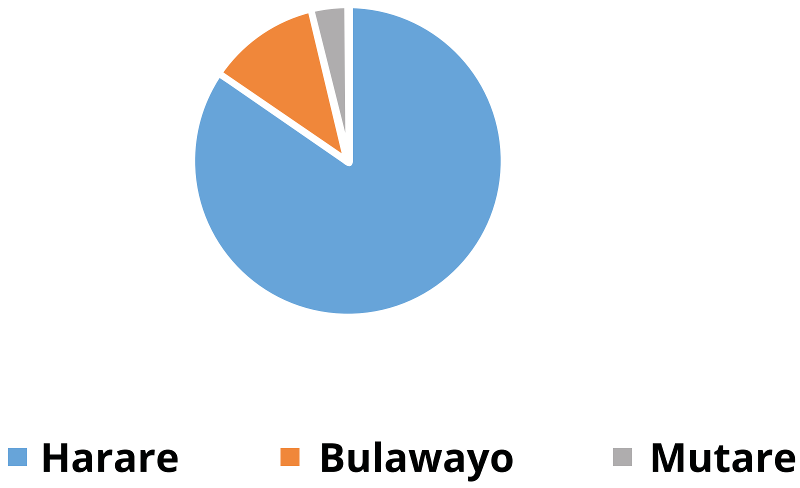


Fig 1: National Distribution of Service Providers

7.2.4.5. Renewable Energy Policy update

The Authority funded the development of the Renewable Energy Policy, the draft Policy which has been finalised for Government approval.

7.2.5. Research and Development Update

The Authority worked on two research projects through various institutes of learning and the deliverables from the projects were as follows;

7.2.5.1. Development and Evaluation of a Low Cost Energy Efficient Barn for Tobacco Curing

The development and evaluation of a low cost energy efficient barn for tobacco curing established that the counter-flow barn concept (KCC1) is feasible. The method produces high quality curing which is 33% more efficient than the Rocket Barn as it uses 33% less wood. This will mitigate the current deforestation crisis in the tobacco industry.

7.2.5.2. The Assessment of Hydro-kinetic potential of Zimbabwean Rivers

The study assessed the electric potential from hydro-kinetic energy on four nominally perennial rivers viz the Save, Mazowe, Pungwe and Sanyati rivers. The rivers have an energy potential of nearly 1,500kW.

7.2.6. Increased Access

7.2.6.1. National Integrated Energy Resource Plan

The Authority facilitated the development of a National Integrated Energy Resource Plan (NIERP) with MOEPD. The NIERP refers to the long-term planning of energy (electricity, petroleum and other forms of energy) to ensure least cost supply. A consultant was identified to develop the plan and is working on the project which is expected to be completed during 2019.

7.2.6.2. Independent Power Producer Policy

The Authority facilitated the development of an Independent Power Producer's Policy for the MOEPD. The project has been hamstrung by the foreign currency challenges to pay the international consultant engaged to carry out the assignment. The Policy will help establish market oriented measures and regulatory instruments for private player's participation in the energy sector in Zimbabwe, chief of which will be the competitive bidding for power generation projects. The current scenario of unsolicited bidding is failing to attract competitive pricing.

7.3 Economic Regulation of the Petroleum Sub-Sector

7.3.1 Licensing

According to the section 29 of the Petroleum Act, every undertaking in the production, retailing, wholesaling and procurement of petroleum products should be licenced by ZERA. The Authority has, through increased enforcement over the years achieved higher numbers of licensed operators as shown in the next sections.

7.3.2 Licensed Petroleum Companies (2012-2018)

In the period January to December 2018, the Authority licenced petroleum sector operators as shown in the table below.

Licensing process

Table 11: Petroleum Licensing Statistics, 2012 - 2018

Licensee Category	Year						
	2012	2013	2014	2015	2016	2017	2018
Retail	229	411	496	594	569	609	638
Procurement	48	39	32	31	36	40	63
Wholesale	16	6	7	6	7	2	3
Blending	**5**	**11**	**18**	**16**	**15**	**10**	**11**
Production	**1**	**2**	**4**	**4**	**3**	**4**	**2**
Total	**299**	**469**	**557**	**651**	**630**	**665**	**717**

Licenced petroleum sector operators for liquid fuels in all categories increased from 299 to 717 between the year 2012 and 2018. The fall in the number of retail sites in 2016 was attributed to cases of prosecution that were not finalised during the year. More concerted efforts of conducting show cause hearings in 2017 resulted in more sites being licenced.

7.3.3 Retail licenses Distribution by province

The table 12 below shows the geographical distribution of the retail sub-sector operators in the different provinces. Most sites are concentrated in the urban areas with Harare having the largest number of retailers.

Table 12: Geographical Distribution of Retail Service Stations

Province	Number	Percentage (%)
Harare	234	36.7
Mashonaland West	75	11.8
Bulawayo	66	10.3
Manicaland	65	10.2
Midlands	46	7.2
Masvingo	41	6.4
Mashonaland East	40	6.3
Mashonaland Central	29	4.5
Matebeleland South	26	4.1
Matebeleland north	16	2.5
Total	**638**	**100**

7.3.4 LPG Licenses

In the LPG sub-sector, ZERA continued to put more effort to increase compliance to LPG licencing regulations with the primary focus being to make the retail operators in the sector licenced. Table 12 below shows that the number of licenced LPG operators have increased between 2015 and 2018.

Table 13: Number of LPG licences issued, 2015 -2018

Licensee Category	Year			
	2015	2016	2017	2018
Retail	39	80	110	200
Wholesale	14	17	16	26
Total	**53**	**97**	**126**	**226**

The actual number of LPG operators, especially in retail is much more than licenced, an area where more regulatory focus is needed in 2019.

7.3.5 Compliance monitoring and Enforcement

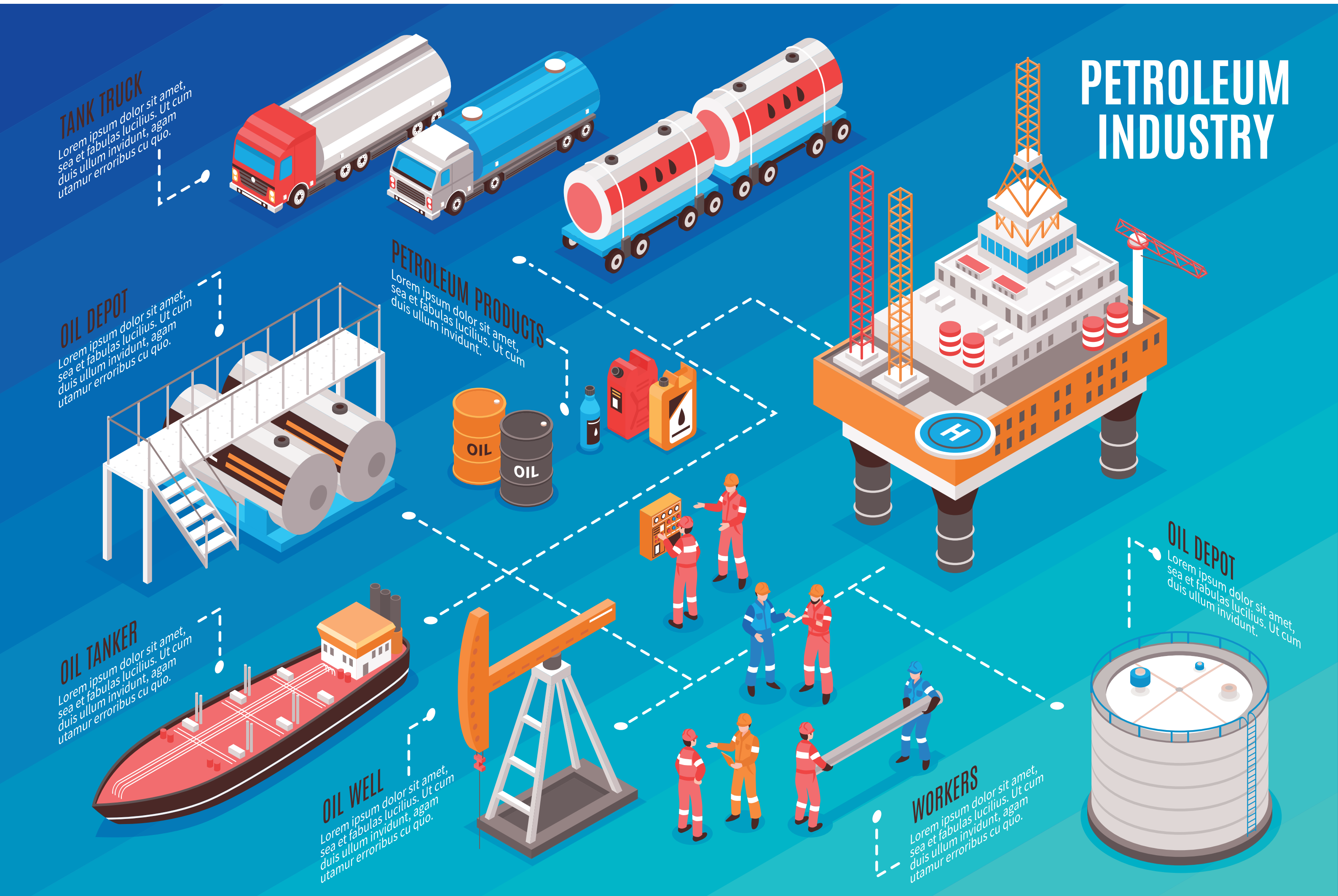
7.3.5.1 Licensing enforcement

In the period under review, 38 cases involving operating without a retail license were prosecuted. The fines ranged from $50 to $500 per case and the Authority felt that they were not deterrent enough. In that regard, the Authority was drafting petroleum licensing regulations that would among other issues provide for spot fines for contravening mostly license terms and conditions.

The Authority also conducted 29 show cause hearings for sites that failed to meet minimum infrastructure requirements. The sites were only licensed once they had made the improvements to the infrastructure.

7.3.5.2 Pricing enforcement

The Authority undertook enforcement activities to ensure that the regulated prices were adhered to. During the compliance audits, fifteen (15) compliance orders were issued for over pricing and the operators immediately complied. For such cases, the Authority in future will immediately impose a fine on the operator once the draft regulations become law.



7.4 Petroleum Sector Infrastructure And Quality Regulation

7.4.1. Fuel Retail Sites Inspection

A total of 560 sites were inspected in 2018 compared to 688 sites in 2017. The compliance rates are shown below.

Table 14– 2018 Inspections Summary

Area	Compliance Rating %				Total sites inspected	Overall Compliance %
	0 – 59	60–69	70 –79	80 –100		
Total 2018	**24**	**29**	**124**	**383**	**560**	**82.8**
Total 2017	**60**	**49**	**136**	**443**	**688**	**80.0**

The was a 18 % decrease in the total number of inspections in 2018 compared to 2017 due to a focus on reinspections of sites with low compliance rates. As a result, there was an increase in overall compliance from 80% in 2017 to 82.2% in 2018. Of the 24 sites that initially scored below the licensing threashold, 20 successfully upgraded their sites to be licensed while four were closed for failing to meet the required petroleum standards for safety and environmental protection.

7.4.2. LPG Retail Sites Inspections

A total of 396 LPG sites were inspected for standards compliance and a compliance rate of 75.2 % was recorded. This was an improvement of 4.3% over the compliance rate achieved in 2017 of 70.91%. While only 46% of the LPG retail sites applying for licences met the required standards in 2017, this figure increased to 63% in 2018. The Authority recognises efforts by major LPG wholesalers to develop and grow small LPG retailers as their agents by providing them with standard equipment and facilitating their training by ZERA.

Fuel Quality Testing

Table 15 LPG Retail Sites Inspections

Area	Compliance Rating %				Total	Overall Compliance	Fillers interviewed	
	0-59	60-69	70-79	80-100			Trained	Un-Trained
Total 2018	**76**	**26**	**44**	**250**	**396**	**75.2**	**257**	**224**
Total 2017	**103**	**79**	**83**	**226**	**491**	**70.9**	**415**	**323**

7.4.3. Fuel Quality Monitoring

A total of 942 samples were tested nationwide in 2018 representing a 52% increase from the 617 samples tested in 2017. The number of tested samples that failed was 32 % lower over the same period. Overally, the compliance rate for all fuel retail sites was 98.3% in 2018 compared to 96.4% in 2017. The fuel quality test statistics are given below.

Table 16: Fuel Quality Inspections

Area		2018	2017
Samples tested	Blend	358	245
	D500	39	284
	D50	524	51
	LPG	20	37
	Total	**942**	**617**
No. failures	Blend	3	5
	D500	0	13
	D50	12	3
	LPG	0	1
	Total	**15**	**22**
Compliance %	Blend	99.2	98
	D500	100	95.4
	D50	97.7	90.6
	LPG	100	97.3
	Overall	**98.3**	**96.4**

Due to effective monitoring and enforcement, the transition from D500 diesel to D50 diesel was carried out without any supply chain disruptions and motorists barely noticed the roll over. Whereas the statutory target for phasing out D500 was 1 May 2018, by 30 March 2018 all retail sites were stocking only D50 due to the Authority's promotion and awareness efforts and the positive response and cooperation of key stakeholders including NOIC, fuel traders and the retailers themselves.

7.4.4. Global Fuel Economy Initiative (GFEI)

ZERA commissioned the University of Zimbabwe to study the vehicle inventory in Zimbabwe to establish its overall fuel economy and to recommend policy measures to reduce fuel consumption. The study was completed in 2018 and its recommendations are currently being discussed with key stakeholders. These include

- Introduction of new and used vehicle importation regulations to promote more fuel efficient vehicles,
- Development and implementation of vehicle fuel economy standards incorporating vehicle fuel efficiency labelling,
- Promotion of local manufacture of fuel efficient cars to reduce importation costs of same,
- Development and introduction of policies and infrastructure that encourage mass transport systems i.e. buses and trains and non-motorised transport systems i.e.

walking and cycling.

• Promotion of clean and renewable alternative automotive fuels and energy sources to ensure sustainable supply of vehicle fuels and

• Development of guidelines for vehicle emission standards.

7.4.5. Grading and labelling of fuel sites

The framework for the labelling and grading of fuel retail sites was completed and is awaiting promulgation of the enabling regulations to be effected. Under the scheme , fuel retail sites will be graded to reflect their compliance to petroleum infrastructure and operational standards, provision of basic customer services amenities and conveniences in addition to their complaints handling procedures. The regulations were submitted to the Attorney General's office for review and promulgation.

7.4.6. ISO17025 Accredited laboratory

Significant progress was made towards development and implementation of the ISO17025 General Requirements for the Competence of Testing and Calibration Laboratories. The standard covers testing and calibration performed using standard methods; non-standard methods; and laboratory-developed methods. It enables laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work. This is critical as the laboratory produces results that are subjected to scrutiny by stakeholders including courts of law. In 2018, training on the standard was carried out by the consultant followed by a gap analysis and documentation of key laboratory processes. By the end of 2018, laboratory personnel were generating the records required by the standard. It is planned that by December 2019, the laboratory will be accredited.

7.4.7. Petroleum Sites Location Guidelines

In response to unsatisfactory siting and location of fuel filling stations in various local authorities, ZERA developed a set of guidelines to help local authorities with petroleum standards knowledge necessary in evaluating and approving requests by investors to construct petroleum facilities. The guidelines which are a summary of the pertinent issues in the national standards for LPG and liquid fuel facilities, were circulated to all Local Authorities in the country through the Ministry of Local Government. ZERA continues to receive positive responses from various local authorities who are already using these guidelines in their approval processes.

7.4.8 Petroleum Standards Awareness

A total of 488 service station operators and LPG fillers were trained across the country in 2018 up 16% from the 420 trained in 2017. ZERA LPG training remains very popular with licensees, as it is comprehensive in coverage of petroleum standards for infrastructure, safe operations and environment protection. The Authority has also been invited by individual companies to train operators at their own premises to increase the number of staff attending the training. The highlight of the training calendar was the training of 10 000 Tongaat Hullet employees in the safe use of LPG conducted by ZERA in the Chiredzi and Triangle Estates. This followed the company's banning of firewood use in the workers compounds in favour of LPG now distributed in the estates for heating and cooking. The LPG rollout program supported by Kensys Gas and Zuva Petroleum has been an excellent model of adoption of modern, clean and efficient energy forms.

7.5. Finance, Administration and Institutional Systems

From ground breaking

7.5.1. Financial Overview

Total income of $13 062 827 for the year ended 31 December 2018 was 42% above the income of $9 194 635 reported during the same period in 2017. The budgeted income for the year ended 31 December 2018 was $11 345 500.

Total operating expenditure of $8 562 176 for the year ended 31 December 2018 was 3% above the expenditure of $ 8 306 538 reported during the same period in 2017.Of the total operating expenditure of $8 562 176, note that $4 162 137 relates to Employment costs whose breakdown was $ 3 528 900 for Salaries and Allowances and $633 237 for other employees related costs.

Other employee related costs include staff training, leave pay provision, statutory obligations, pension contribution, group life cover and medical aid. The budgeted expenditure for the year ended 31 December 2018 was $11 388 750.

Operating Surplus of $4 500 651 for the year ended 31 December 2018 was 408% above operating surplus reported during the same period in 2017 of $888 097. Surplus is made up of $1 492 116 from the Electricity sub-sector, $110 716 from Petroleum sub-sector and $2 897 819 from the General Account. The budgeted operating surplus for the year ended 31 December 2018 was $ 6 750.

In terms of the Energy Regulatory Authority Act, ZERA is required to remit to the Rural Electrification Fund, the surplus from the electricity revenue account. A total of $1 492 116 was duly appropriated to the Rural Electrification Fund. Capital expenditure for the year ended 31 December 2018 increased by 479% from $739 999 to $4 285 918 compared with the capital expenditure for the same period in 2017. Of the expenditure, 92% was related to the ZERA Head Office construction works. The budgeted capital expenditure was $7 368 410.

The financial statements for the year ended 31 December 2018 were independently audited by the appointed External Auditors and the Auditor's opinion is in the Audited Financial Statements Section.

7.5.2. Administration Overview

Construction of the ZERA Head Office in Mount Pleasant Business Park in Harare commenced in 2018. The construction project was at 30% at the end of December 2018, and expected to be completed by December 2019. Super structure works on the basement, ground floor and first floor are now complete. Partitioning works on most of the executive wing, viz the first floor and roof, of the building are almost complete. Expenditure to date on the project is $ 5 381 012.

7.5.3. SAP Business Process Improvement

The majority of the SAP modules are now functional. ZERA is now finalizing the processes and procedures which will enable the licensees to submit their applications for licenses online. Online application is likely to occur in the second quarter of 2019 once the penetration system retest is completed. The secondment of an Officer to focus solely on SAP helped significantly in addressing operational challenges thus increasing utilisation of the system. The term of the seconded officer came to an end in 2018 and a proposal for an extension will be made in 2019.

7.5.4. Quality Management Systems: ZWS ISO 9001:2015

ZERA's journey to QMS certification which started in 2016 , came to a successful end in December 2018 when the organisation's QMS was recommended to the Standards Association's Registration Approval Board for certification. This followed concerted efforts by the organization in adopting the ZWS ISO 9001:2015 requirements through, staff awareness, development of standard operating procedures (SOPs), internal quality audits, SAZ documentation review and finally the SAZ certification audit in October 2018.

The QMS culture will be sustained through continuous staff awareness programs, internal quality audits and regular management reviews. In this way, the QMS will continue to provide the structure, organization and discipline necessary for meeting various stakeholders needs and tangible improvements in the organization's service delivery.

7.5.5. Enterprise Risk Management

The Authority has developed and continues to maintain a sound system of internal control including Risk Management division. The controls in place are designed to provide reasonable assurance as to the reliability of the financial statements and to safeguard, verify and maintain accountability of assets. The Internal Audit Department periodically reviews the effectiveness of these controls and reports deficiencies to the Audit and Risk Management Committee

The emphasis for the year has been on fully implementing the ERM framework and enhancing governance around risk management. In addition, several initiatives have been taken to develop risk management awareness at all levels of the organisation. The ZERA ERM framework has been given a formal shape by developing an ERM charter which was presented and approved by the Board. The Charter outlines the principles, key responsibilities and reporting requirements for risk management within ZERA.

The Authority continues to identify and monitor risks and the top ten key risks included,

- Key Initiatives Risk – Projects
- Financing Risk
- Strategic Risk
- Pricing Risk
- Energy Supply Risk –Petroleum
- Occupational Health and Safety Risks
- Business Interruption Risk
- Corporate Governance and Ethics Risks
- Energy Supply Risk –Electricity
- Licensing Process Risk

7.5.6. Records and Knowledge Management

During the year, the main focus for the Records and Knowledge Management besides capturing, storage and preservation of records and information was to enhance the existing Records and Knowledge Management Systems to align with relevant information systems that effectively capture and safeguard the Authority's records and information. The SAP Records Mail Management System was redesigned. The SAP Petroleum Licensee Records management system was developed to ensure systematic control and access to Petroleum licensee

records. The ZERA Records Management Guidelines were also approved to provide a framework for managing the Authority's records in an integrated manner.
The ZERA Knowledge Management portal was upgraded to integrate ISO 9001:2015 Quality Management System documents and to improve sharing and exchange of key reference documents by staff. Despite continued shortage of foreign currency to import valuable energy information resources, the library collection continue to grow steadily with plans to open to the public being considered as more space was allocated to the Library.

7.6 Human Resources Overview

7.6.1. Organisational structure

The Authority is committed to its mandate to provide a

7.6.2. Regional Offices

The Authority is committed to its mandate to provide level playing field for safe, reliable and sustainable energy supply through effective regulation. In order to increase access to all stakeholders and clients, the Authority opened two Regional Offices in Bulawayo and Mutare.

7.6.3. Resourcing

In ensuring that the Authority meets its mandate, whilst remaining competitive in the energy sector nationally, regionally and internationally, the Authority's priorities are to keep the organisational structure filled at a minimum of 95% capacity at all times, as well as to continuously up skill employees through training and development interventions. To this end, ZERA initiated the process to recruit for 10 vacancies during 2018. However the major challenge was to attract qualified candidates for the Technical Department. In addition to this the Authority's target for gender balance was 45% but the average achieved was 41% due to the absence of qualified and experienced females in the Technical Department.

7.6.4. Employee turnover

The Authority witnessed two exits during the year due to one voluntary turnover and one transfer.

7.6.5. Talent Management

The Authority is committed to excellence and the performance management system in place provides standards by which the performance of the organisation is targeted to enhance efficiency and effectiveness and achieve improved service delivery.

7.6.6. Employee Engagement

As part of productivity improvement and to increase efficiency whilst empowering employees, the Authority embarked on employee engagement exercise which started with training for all employees at all levels on Employee Engagement. The engagement exercise focused on engagement survey, talent and culture survey. The overall score is expected in 2019.

7.6.7. Training and Development and Talent management

The shortage of skills, especially experienced and critical skills, is a major challenge that is being addressed through internships and learnership, among other programmes. The Authority views the internship and learnership programmes as an ideal opportunity to develop and mould ZERA-specific skills, with a view to preparing future regulators. The Authority achieved 62% of targeted programmes for the period under review. Staff underwent training (both locally and internationally). This is a decrease of 18% from the previous year's 80%.

In the period under review, the Authority initiated the process to engage eight Graduate Learners. The programme prepares young graduates from universities for development of skills within the regulatory environment by providing on-the-job training in order to create a pool of potential candidates for employment by the Authority. Eleven interns were appointed for the same period and allocations were made across both the support and regulatory divisions. This was an increase from 9 in the previous year.

7.6.8. Employee relations

The Authority is cognisant of the role played by employees in achieving its mandate and a business conducive environment was achieved through period consultation with workers on issues of mutual interest. The Authority has scheduled quarterly meetings at Works Council in line with best practice. In addition to this, the Authority engaged employees in weekly, monthly and quarterly meetings.

7.6.9. Employee Wellness

The Authority provides a comprehensive, integrated employee wellness programme which focuses on the promotion of healthy living and provides for empowerment through awareness assistance. Authority employees participated in the following wellness programmes during the reporting period: World Aids Day, Cancer, TB and Diabetes Days.

In addition to creating awareness ZERA employees participated in physical exercises on a regular basis and also set up a social soccer team as well as a golf team which had various tournaments with established teams. Attendance was more

7.7 Consumer Engagement and Education

Catching them young

7.7.1. Engagement strategy

Pursuit of the consumer services mandate, to be responsive to energy consumer issues and come up with appropriate intervention programs the Authority segmented consumers into various sectors namely industry, commerce, mining, farmers and domestic.

7.7.2. Chitungwiza, Beitbrige, Gwanda and Plumtree Domestic Consumer Education

Through partnership with Consumer Council of Zimbabwe (CCZ) and ZETDC the Authority educated over 400 domestic consumers in Beitbridge, over 500 in Chitungwiza, over 400 in Gwanda and 415 in Pluimtree on the Safe use of Energy in the home.

The target group was mainly from high density areas and drawn from various sectors of society including but not limited to Councillors, Various Church representatives, youths, Residents Associations, Disabled Associations, Small Community Business Representatives and Greater Chitungwiza, Beitbridge, Gwanda and Plumtree Residents. These engagement platforms enabled the domestic consumers to directly interact with ZETDC senior management teams on perennial electricity issues affecting them as well as give an indication of challenges in the energy space in the reached-out towns.

7.7.3. Matabeleland South Stakeholder Engagement

The Authority reached out to Beitbridge, Gwanda and Plumtree Town Council senior officials and the following issues were raised and requested:

- procedures and standards for registration of LPG suppliers,
- specific guidelines on where LPG retailers should be located or operate from to minimise LPG explosion risk,
- requested training on LPG – licensing guidelines, LPG fillers' and solar installation.

- fears that Local authorities have no capacity to handle LPG fire in case of emergencies,
- Councils are faced with LPG operational complaints from consumers, like scales and their calibration,
- thriving illegal fuel smuggling and dealing,
- increased vandalism on power supply line,
- increasing housing developments without electricity power supply - forcing residents to go solar and off grid.

7.7.4. Quarterly meetings

The Authority met with the farmers' leadership (3 meetings), Confederation of Zimbabwe Industries and Chamber of Mines Zimbabwe (3 meetings) where the three consumer sectors, ZETDC and the Authority discussed energy issues, challenges and developments in their various sectors. This led to sustained improved relations between the three sectors and the Authority. During the quarterly meetings the Authority was able to pick up issues from various consumer sectors as well as give updates on the development in the energy sector.

Eng Mudzingwa with LED bulb

7.7.5. Consumer complaints and dispute resolution

The Authority continue to mediate complaints among and between licensees and consumers. A total of 39 complaints (17 Petroleum and 22 Electricity) were received during year under review, 34 of them resolved, while 5 are work in progress and carried forward to 2019. The cases received were mainly to do with issues of unfair competition, contaminated fuel, electricity overcharge and electricity postpaid estimated billing. There has been significant responsiveness from licensees because of close monitoring and follow up on cases that would have been reported to the Regulator.

7.7.6. Consumer Initiated Conferences and Networking initiatives

In the spirit of networking and sustainable consumer engagement, the Authority participated in various consumer-initiated engagements which include Chamber of Mines Zimbabwe Annual Conference, Zimbabwe National Chamber of Commerce (ZNCC) Annual Conference, Golf Tournaments - ZNCC, ZITF Charity, HIT, ECZ, NOIC, Confederation of Zimbabwe Industries Annual Conference, Farmers workshop, ZITF International Business Conference, CZI economic outlook, Charted Institute of Customer Management, ZFU Strategic Workshop, People with Albinism support, Agricultural shows – Harare, Manicaland, Gwanda, Victoria Falls, Victoria Falls Market Marketers Convention and the National Stakeholders Indaba.

Consumer Services Officer F. Ngwenya appreciating stakeholders participation.

7.8 Communications And Public Affairs

ZERA's 2018 ZITF Team with the Minister S.K. Moyo and Permanent Secretary P. Mbiriri

7.8.1. Assessment of public perception

The National Satisfaction and Consumer Satisfaction Survey highlighted the need to maintain positive engagement with stakeholders. To continuously measure the organisation's client satisfaction pulse, feedback devices were placed at entry points at the ZERA Head Office. The Authority consistently scored above 75 % throughout the year. It was noted, however, that more could be done to improve the rating.

7.8.2. Exhibitions

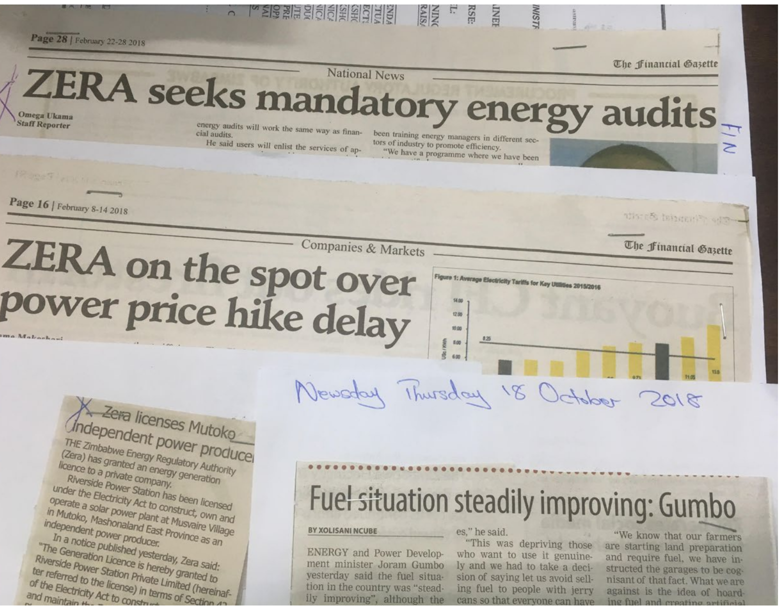
The Authority exhibited at ten shows across the country where visitors to the ZERA stand were availed an opportunity to seek clarification on regulatory requirements and various technologies (such as the LPG stove, water heater, efficient cook stove, investment opportunities and solar PV) practically displayed.

Recurring issues raised were regarding the licensing process for both electricity and petroleum sectors. The need to make ZERA communications products more accessible (e.g. translation into vernacular languages including Sign Language and transcription into Braille); request to carry out more awareness campaigns on energy technologies and their safe use. Stakeholders also called for stricter enforcement of regulations to protect consumers against products that do not meet set standards, for example, lighting products such as LED bulbs as well as solar PV equipment. Poor service in addition to poor quality products was especially highlighted in the petroleum sub-sector with stakeholders calling for ZERA to name and shame offenders.

The Power and Energy luncheon held during the year was a notable success. They highlighted the need for enforcement of standards in biogas digester construction; repeal of duty on knocked down renewable energy kits and the promotion of competition in ethanol production.

7.8.3. Media Engagement

During the period under review, the Authority also disseminated information about the energy sector through other channels. Engagement with the media ensured that reporting on the energy sector in general and ZERA to be specific was objective throughout the year. Topical issues were electricity and fuel supply as well as prices of the same products. Electricity and fuel price was not an issue last year.



7.8.4. Information, Education and Communication

Cognisant of the needs of speech and hearing impaired energy consumers, ZERA developed a video on Safe Use of LPG which included English subtitles. Other videos were developed in Shona and Ndebele to promote adoption of energy-efficient LEDs. These videos were flighted via the national broadcaster, ZBC TV. A brochure detailing ZERA's mandate was produced in Braille for the visually impaired while another brochure on Safe Use of LPG was undergoing the final stages of development by the end of 2018. In addition, the bulk SMS campaign enabled ZERA to disseminate information about safe use of LPG; the dangers of purchasing fuel from illegal fuel vendors and promoting the use of energy – efficient LEDs to over 200 000 consumers.

7.8.5. Corporate Social Investment

A donation was made towards procurement of equipment for the Women's University in Africa Midwifery Lecture Room. An additional ten students enrolled in STEM degrees in various State institutions were identified through their respective institutions and awarded their initial bursaries, bringing the total number of students on the ZERA performance based scholarship (which cover tuition and accommodation) to 17.

A donation – consisting of sunscreen, lip balm and sun hats) was made to the Albino Association (Matabeleland North Chapter). ZERA also undertook to install Solar PV lighting and water heating equipment at various Rural Health Centres. With the assistance of the Ministry of Health and Child Care, Mutepfe (Buhera, Manicaland) and Mdlankunzi (Lupane, Matabeleland North) were identified.

7.8.6. Regional Integration

The Authority was active in the energy regulatory matters at regional level. This saw the Authority participating in all the sub-committees convened by RERA. Domestication of the recommendations made at RERA meetings are ongoing. The Authority served its last year as the Chairperson of RERA. One of the key issues that occurred during its term was the initiation of transition of RERA from an association to an energy authority. A number of regulators also began the process of transforming from focusing on electricity only to energy. The Authority hosted Botswana Energy Regulatory Authority (BERA) and Malawi Energy Regulatory Authority (MERA) officials during the year. These two agents were on an exchange visit. They were interested in petroleum and electricity regulation. Such visits serve as a learning point for the Authority for the feedback from the visitors is valuable.

RERA
Regional Electricity Regulators Association of Southern Africa

8.0 License Performance

8.1. Licensee Perfomance

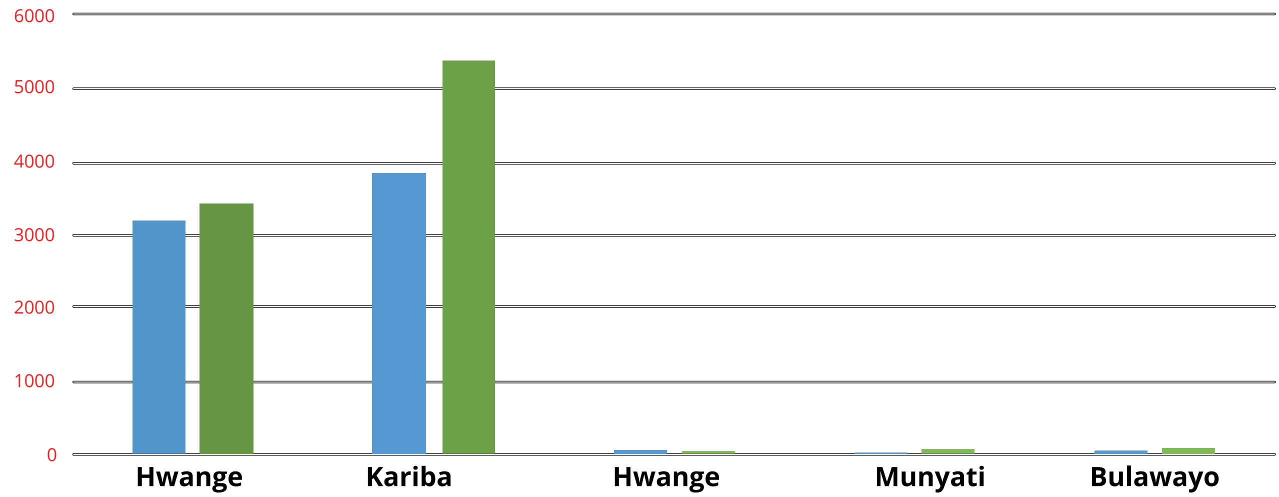
8.1.1. ZPC Production

The total energy sent out from ZPC owned power stations increased by 25% from 7,216GWh in 2017 to 9,037GWh in 2018 mainly due to the increased water allocation at Kariba. The individual contributions from the generating stations is as depicted in Table 16 and Graph 1

Table 17: ZPC Energy GWh Sent

Year	Hwange	Kariba	Harare	Munyati	Bulawayo	Total
2018	3,425.14	5,377.28	65.63	81.22	88.2	9 037. 47
2017	3,202	3,850	75	38	51	7 216
% Change	**7%**	**39.7%**	**-12.5%**	**53.2%**	**42.2%**	**------**

Fig .2: ZPC Energy Sent Out



2017	3202	3850	75	38	51
2018	3475.14	5322.28	65.68	81.22	88.3

Table 18: ZPC Energy Sent Out

ZPC surpassed capacity threshold set by ZERA for 2018 by 5% due to increased water allocation at Kariba and deferment of planned outages at Kariba and Hwange Power Stations.

(a) Kariba's contribution to the national grid increased by 40% and this was largely attributed to increased water allocation by Zambezi River Authority.

(b) Hwange Power Station faced numerous challenges during 2018 but within management control.

ZERA remains concerned at the poor performance of Hwange Power Station and the small thermal stations.

8.1.2. IPP Production

ZERA monitored electricity production by independent power producers (IPPs) in the year 2018. It was noted that most IPPs generation increased while Dema reduced its power generation. The following table summarises the total annual production over the period 2012 through to 2018:

IPP Production

Table 18: IPP Energy Production

Producer	Technology	Production (GWh)						
		2018	2017	2016	2015	2014	2013	2012
NRE	Mini-hydro	112	111	69.8	51.4	28.8	14.2	2.6
Hippo Valley Estates	Biomass	63.2	0	53.1	34	50	70.2	55.2
Triangle Limited	Biomass	83.9	3.33	181	87.5	94.2	95.6	111.4
Border Timbers	Biomass	0	0	0	0	0	0.2	-
Chisumbanje	Biomass	39.5	10.8	2.72	6.5	-	-	-
Dema Emergency Peaking Power	Diesel	0,15	48.2	203	-	-	-	-
Kupinga	Mini-hydro	13.1	7.9	-		-	-	-
Claremont	Mini-hydro	1,68	0.4	-	-	-	-	-
Total		311	182	509	179	173	180	169.2

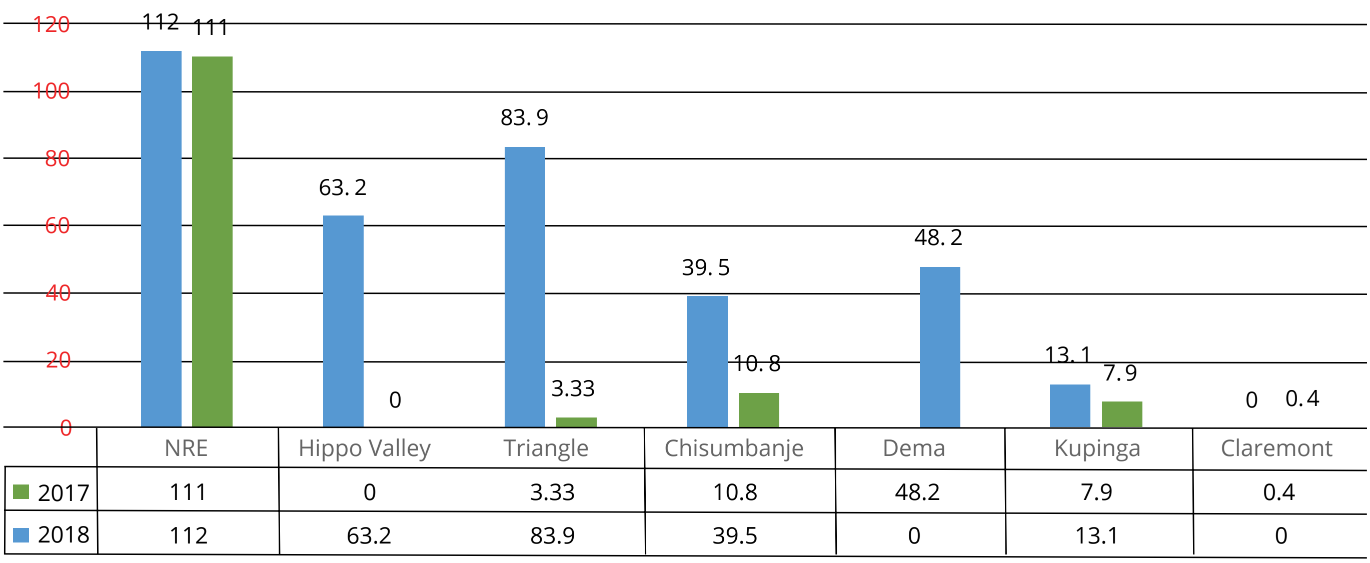


Fig 3: IPPs Production

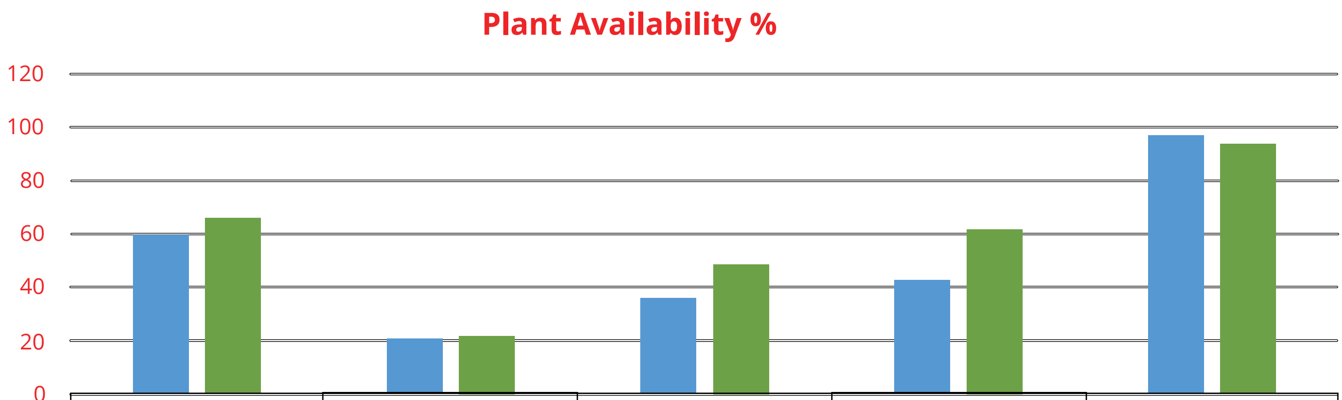
8.1.3. Electricity Generation, Transmission and Distribution Performance indicators
8.1.3.1. Generation

Table 19: ZPC Plant Availability Factor

Plant	Actual 2018	2017 Actual	ZERA Target	Variance	2017/2018 Variance%
Hwange Power Station	66	60	80	-18%	10%
Harare	22	21	80	-73%	5%
Munyati	49	36	80	-39%	36%
Bulawayo	62	43	80	-23%	44%
Kariba Power Station	94	97	95	4%	-3%

Availability targets at ZPC Power stations was mainly affected by numerous forced outages, unavailability of TA6 and TA7 at Munyati, frequent failure of the boiler plant at the Small Thermals, System disturbances at Hwange as well as unreliable turbine plant at Harare Power Station, Munyati and Bulawayo on shutdown for most of quarter 3 due to coal supply challenges, Hwange units 2 and 6 extended outages.

Fig 4: ZPC Plant Availability



	Hwange Power Station	Harare	Munyati	Bulawayo	Kariba Power Station
2017	60	21	36	43	97
2018	66	22	49	62	94

Table 20: ZPC Plant Availability

Table 21: ZPC Plant Efficiencies

Plant	2018 Actual	2017 Actual	ZERA Target	Variance	2017/2018 Variance %
Hwange Power Station	29	28	30	-3%	4%
Harare	23	21	25	8%	10%
Munyati	18	10	20	-10%	80%
Bulawayo	18	23	20	-10%	-22%
Kariba Power Station	94	95	95	-1%	-1%

Efficiency targets mainly affected by

- Numerous steam and water leaks at small thermals.
- Unavailability of soot blowers on some of the units
- Leaking air heaters-small thermals
- Poor vacuum at Hwange stage 1 units and small thermals.
- Fouled boiler tubes resulting in poor heat exchange
- Unavailability of feed water heater for Hwange stage 2 units.
- Saturation of ID fans at Hwange power station.
- Unavailability of Hwange power station unit 5 feed water heaters.

Table 22: ZPC Plant Trips

Plant	2018 Actual	2017 Actual	ZERA Target	Variance	2017/2018 Variance%
Hwange Power Station	87	65	6	1,350%	33.9%
Kariba Power station	18	8	3	500%	125%
Small thermals	11	6	9	22.2%	83.3%

A significant increase in the number of trips recorded in the year 2018 compared to the same period in 2017. ZPC cited vacuum challenges, turbo-generator faults and faulty transmitters in the plant as the main cause of the trips increase.

8.1.4.Transmission and Distribution Quality of Service

8.1.4.1. Transmission Quality of Service Analysis

a) Supply Interruptions -

Year to date supply interruptions in 2018 were 110 against a target of 120. This resulted in a good performance of 8% above target.

b) SAIDI - The yearly average duration of interruptions was 204 minutes against a target of 120 minutes and this is attributable to delayed reaction to faults and a deficient infrastructure maintenance regime.

c) Transmission Unserved Energy

Energy undelivered due to transmission system in 2018 resulted in 8.46 GWh being lost.

d) Frequency Excursions – none recorded.

e) Voltage Excursions - Voltage excursions have been unabated throughout the year. A total of 298 Voltage excursions were recorded in 2018 against a target of 168 and these are attributed to system faults, lack of compensating equipment especially during off-peak periods when the system is lightly loaded and switching operations.

Table 23 Transmission Quality of Supply Parameters

Description	2018	2017	Target	Variance -2018/ Target (%)
Number of Interruptions	110	125	120	8%
Average duration of interruptions (minutes) – SAIDI	204	94.5	120	70%
Unserved Energy (MWh)	8.46	4.03	1.875	351%
Voltage excursions	298	288	168	77%

8.1.5. Distribution Quality of Service Analysis

There has been a 3.3% increase in the number of faults between 2017 and 2018. Most of the faults are a result of acts of vandalism and theft of both transformer oil and conductor. An improvement has been recorded in the average arrival time at a fault in urban areas. A reduction of 67 minutes was recorded between 2017 and 2018.

Table 24: Distribution Quality of Service Parameters

Description	YTD 2018	YTD 2017	% Variance
Number of faults	136,104	131,688	3.3%
Average arrival time at a fault urban (minutes)	276	343	-19.5%

8.1.6. New Connections

The active customer base by end of 2018 was 753,275 in up from 723,366 in 2017. There was a decrease in the number of customers paid but unconnected at 12,477 in December 2018 compared to 14,202 in December 2017. This has been attributed to the increased supply of meters due to the Customer Supplied Prepayment Meter Scheme.

Table 25: Customer Connections

Description	2018	2017	2018/17 variance (%)
New connections	11,102	4,009	177%
Active customer base	753,275	723,366	4%
Customers paid but not connected	12,477	14,202	-12%

8.1.7. Transmission/Distribution Operational Efficiency Losses

The overall yearly distribution losses are estimated at 12.75% against a ZERA distribution network target of 8% (transmission network target is 4%). ZETDC is still working on the statistical metering project in-order to be able to accurately capture loss data.

Table 26: Losses in Transmission and Distribution

Losses	2018	2017	ZERA Target	2018/17 Variance	2018/Target %
Total	12.75%	14.21%	12%	0.75%	-1.46%

8.1.8. Distribution Energy Sales

The annual energy sales failed to meet the ZERA target by 3% despite being 10.6% higher than the 2017 sales.

Table 27: Energy consumption in 2018

	2018 GWh	ZERA target	ZERA Variance (%)	2017 GWh	YTD Variance (%)
Distribution Sales (GWh)	8,505	8,760	-3%	7,687	10.6%

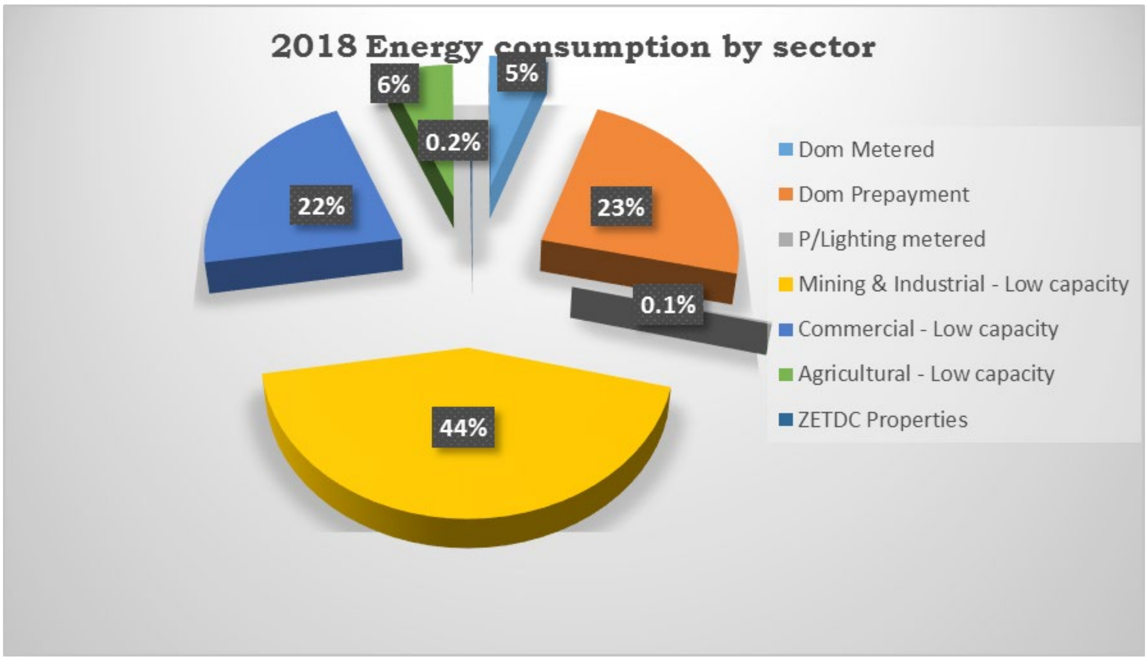


Fig 6: E 2018 nergy consumption by sector

8.1.9. Industry Related Accidents

Sixty-three (63) electrical accidents were recorded during the year (39 in 2017, 62% increase) with forty-eight (48) involving members of the public. Thirty (36) members of the public were killed against 20 in 2017 (80% increase) and eighteen (18) suffered injuries of various severities against eleven (11) in 2017 (64% increase).

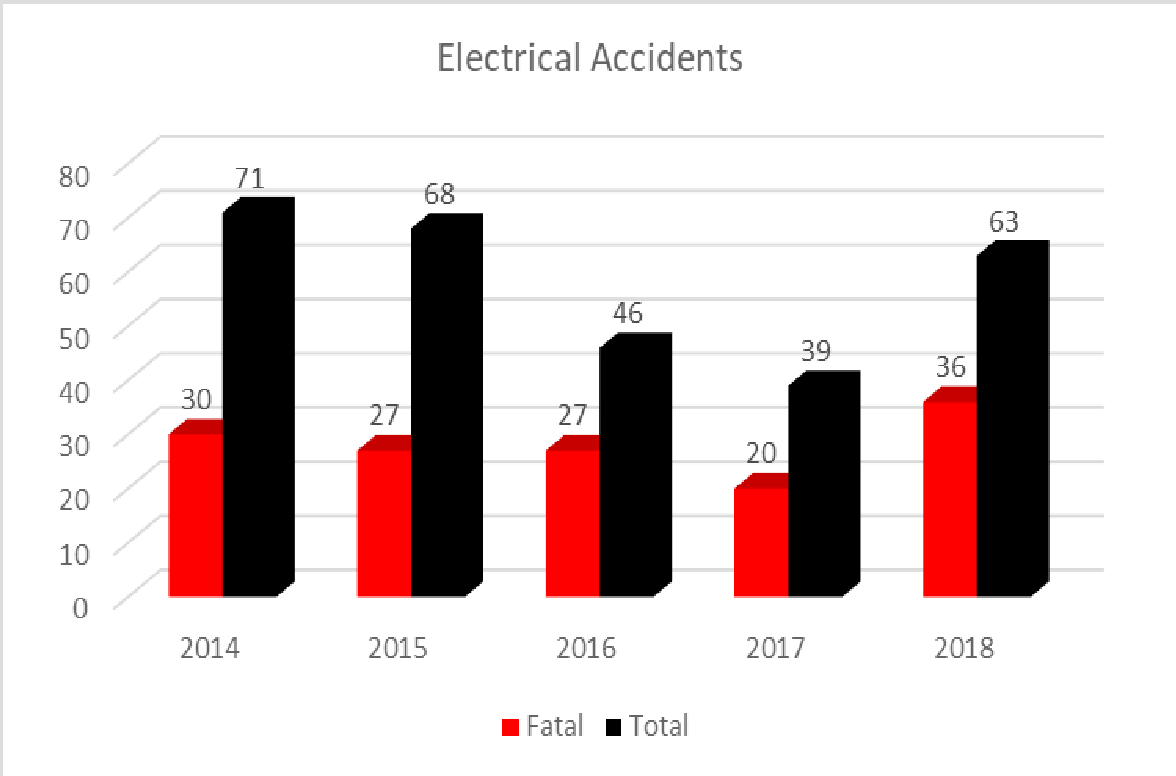


Fig 7: 2018 Electrical Accidents Trend

The most accidents on the distribution newtwork occured during the rainy season when infrastructure collapse is rampant. The major causes of the accidents are summarised as below;

• Infrastructure collapse –19%
• Thefts and Vandalism – 8%
• Unsafe acts by members of the public – 49%
• Unsafe acts by utility staff -24 %

The electrical accidents investigations carried out revealed the following general findings;

a. Substandard and illegal connections by the public at farms e.g. tuckshops, chicken runs
b. Lack of statutory installation inspections
c. Lack of safety awareness campaigns
d. Collapse of utility infrastructure due to age and lack of maintenance
e.Unqualified electrical repair and construction contractors .

The Public Safety Regulations (Statutory Instrument 177 of 2018), which was developed to mitigate the occurrence of electrical accidents, has been promulgated. Non-reporting of electrical accidents by utilities is an offence under section 28 of the Energy Regulatory Act (Chapter 13:23).

8.2. Petroleum Industry Performance

8.2.1. Fuel imports trend and analysis

Total imports increased by 23% in the year 2018 compared to 2017. The only product which showed a decline was Paraffin which had already started plummeting in the year 2017 due to imposition of 40cents per litre duty on the fuel in January 2017. The different companies supplying the aviation industry verified the Jet A1 data through the Civil Aviation Authority of Zimbabwe (CAAZ) through returns. Table 27 shows the trends in liquid fuels imports for 2015, 2016, 2017 and 2018.

Table 28 Liquid Fuels inputs 2015 - 2018

Year	Diesel (ltrs)	Petrol (ltrs)	Paraffin (ltrs)	Jet A1 (ltrs)	Total (ltrs)
2015	873,250,553	505,147,194	51,168,032	27,190,074	1,456,755,853
2016	733,857,144	444,322,565	90,139,683	47,925,383	1,316,244,775
2017	761,813,335	445,068,704	23,647,385	60,246,486	1,290,775,910
2018	921,171,992	616,339,735	11,682,716	74,605,374	1,623,799,817
Diff %	**20.9%**	**34%**	**50%**	**25%**	**23%**

Note 1: Diff % represents the percentage difference for year 2017 and 2018

8.2.2. Monthly Liquid Fuels Imports

Table 29 below shows the trends in the monthly importation of liquid fuels during the year 2018. There were some incidences where procurement companies were citing that they are facing challenges due to the liquidity constraints in the economy.

Table 29: Monthly liquid fuels imports January – December, 2018

Month	Liquid Fuels			
	Diesel (ltrs)	Petrol (ltrs)	Paraffin (ltrs)	Jet A1 (ltrs)
January	62,094,755	51,440,816	1,227,947	5,954,050
February	52,487,073	39,552,886	1,761,277	4,587,528
March	57,450,597	47,738,312	1,597,213	6,122,489
April	60,569,643	42,857,547	1,892,746	5,172,635
May	77,113,981	52,931,731	1,045,547	6,413,591
June	97,397,934	60,870,188	641,172	6,320,517
July	101,428,795	60,138,982	742,776	6,121,436
August	100,819,300	57,824,449	1,308,363	6,684,559
September	90,743,354	52,054,428	425,415	6,557,889
October	102,102,212	61,015,998	908,900	7,801,619
November	61,787,034	41,948,672	20,865	5,694,263
December	57,177,314	47,965,726	110,495	7,174,799
Total	921,171,992	616,339,735	11,682,716	74,605,375

8.2.3. Ethanol production

Table 30 below shows the annual ethanol production figures for the period 2013 to 2018. The year 2018 saw a high production as compared to the previous years due to the late rain season.

Table 30: Annual Ethanol Production Volumes 2013 – 2018

Year	Green Fuel (million litres)	Triangle (million litres)	Total (million litres)
2013	16.5	23.8	40.3
2014	49.1	20.2	69.3
2015	45.8	19.8	65.6
2016	35.8	13.3	49.1
2017	52.9	25.3	78.2
2018	57.0	23.7	80.7

8.2.4. Petroleum products sales by economic sector

Table 31 below shows the percentage sales of the petroleum products by economic sectors. The data shows that most of the sales of the products are distributed through retail sites where it is consumed by the transport industry and domestic use.

Table 31: Petroleum Products Sales by economic sector

Sector	Diesel (%)	Petrol (%)	Paraffin (%)
Retail	51.07	76.58	61.33
Agriculture	4.72	2.47	1.93
Mining	7.71	4.04	18.01
Food Processing	0.43	0.04	0.66
Manufacturing	0.55	0.04	1.79
Transport	6.80	2.56	3.85
Commercial	21.01	9.46	7.75
Other	7.72	4.81	4.67
Total	100.00	100.00	100.00

Table 32 Petroleum Products Sales by Geographic Region

Province	Diesel (%)	Petrol (%)	Paraffin (%)
Harare	56.21	44.27	69.85
Bulawayo	11.54	12.12	7.77
Manicaland	9.74	9.41	5.42
Mash Central	2.71	1.80	0.58
Mash East	3.11	3.13	1.27
Mash West	5.90	3.92	1.41
Mat North	3.31	0.87	0.00
Mat South	0.91	0.92	0.00
Midlands	2.18	18.82	6.21
Masvingo	4.39	4.74	7.50
Total	100.00	100.00	100.00

8.2.6. International Crude Oil and Beira FOB prices

Crude Oil prices started with dip in the first quarter of the year and thereafter picked up significantly before sharply dropping in the last three months. The Fig 10 below shows the movements in the crude oil prices in 2018.

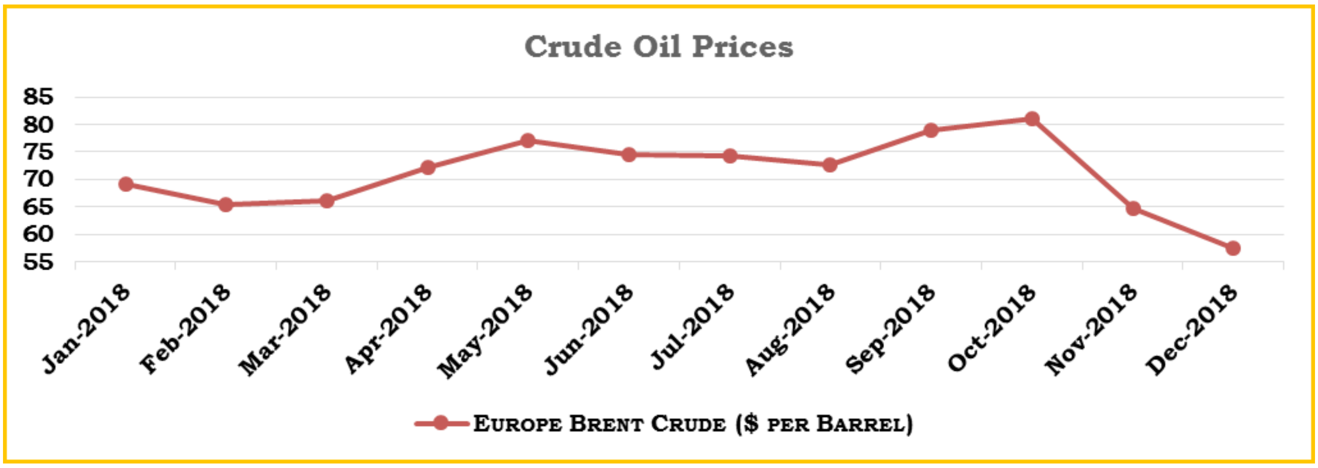


Figure 8: Crude Oil Prices per Barrel

Source is U.S. Energy Information Administration (EIA)

8.2.7. FOB prices trend

The FOB prices followed the same pattern although there is a one month lag due to the changes in the pricing formula. The pattern in the FOB is shown in the Fig 11 below:

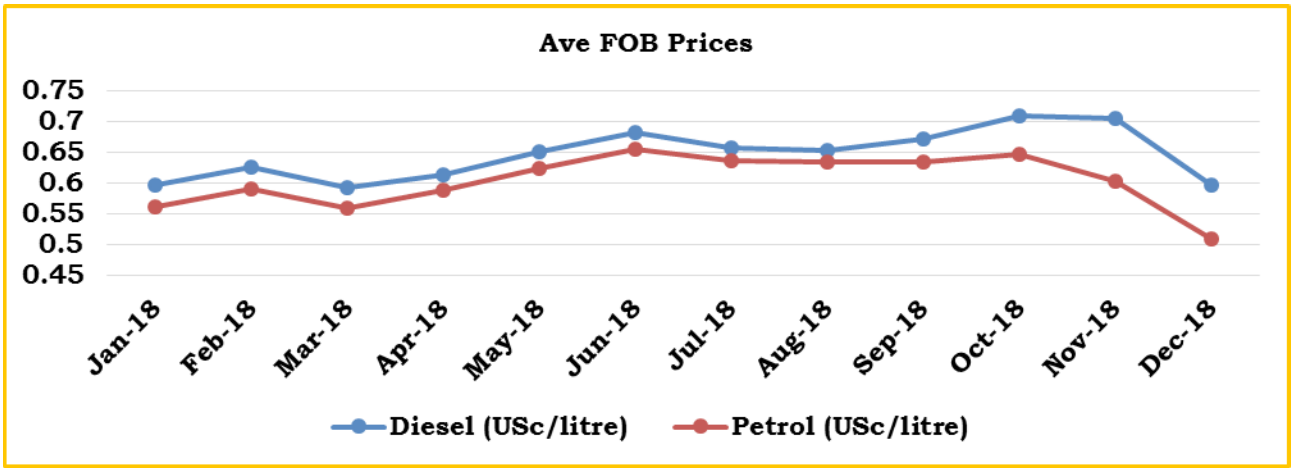


Fig.9 : FOB Price Trend 2018

8.2.8 Maximum Market Prices

The market prices have been fluctuating in a similar pattern with the FOB prices as shown in the Fig 12 below:

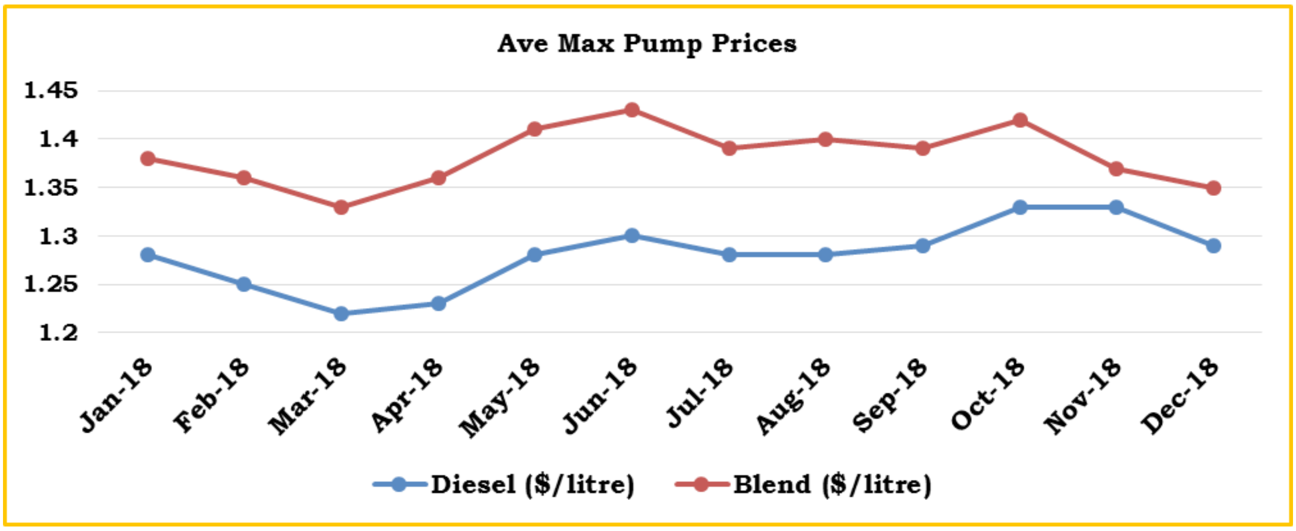


Figure 10: Maximum fuel prices

8.2.9 Average Market Price Comparison

The prices of fuels in the major towns and cities differed mainly because of the distance to deliver the fuel from the major depots in Harare and Mutare. Victoria Falls recorded the highest prices as the town is furthest away from the source.

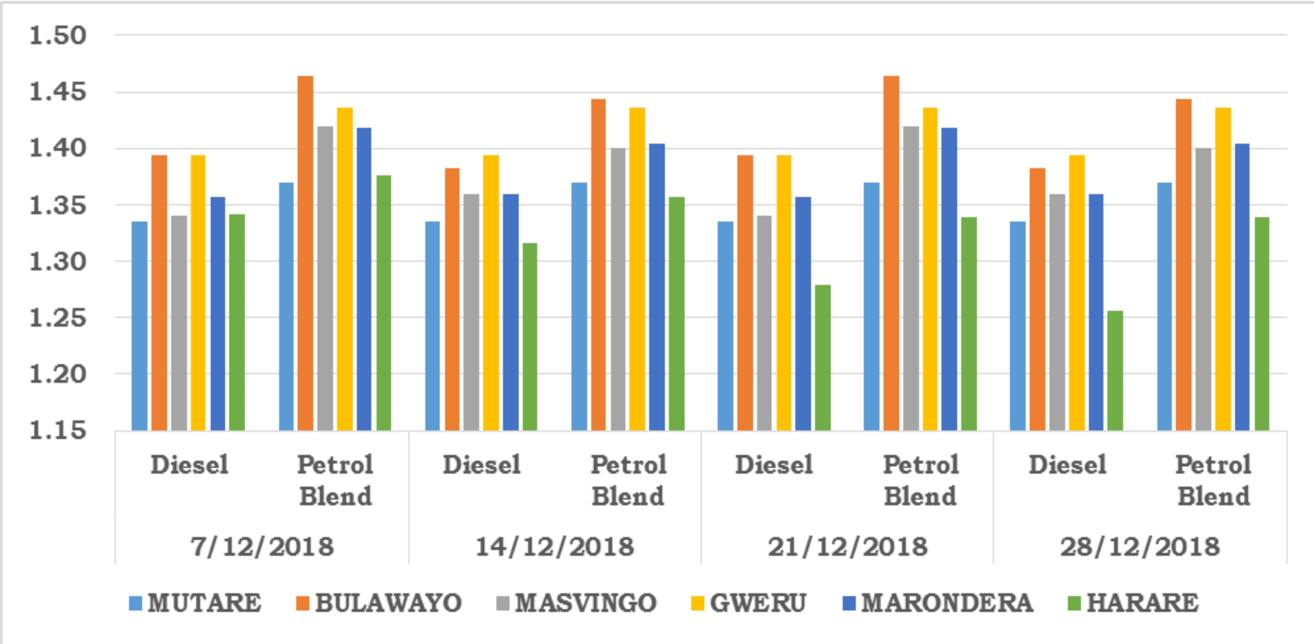


Fig. 11: Retail Prices across Zimbabwe

8.2.10 Regional Petroleum Prices (SADC)

The table below illustrates the average fuel prices (USD per litre) from a sample of countries in the region. From the current figures, Zimbabwe has the highest prices for both petrol and diesel.

Table 33: Regional Fuel Prices Comparison (Prices as at December 2018)

Country	Petrol price ($/litre)	Diesel price ($/litre)
Zimbabwe	1.34	1.28
Zambia	1.36	1.24
Malawi	1.35	1.35
South Africa	1.04	1.02
Tanzania	1.15	1.15

*Source - Individual Regulators Websites

8.2.11 LPG and Paraffin Prices Trend

LPG prices have been stable with slight fluctuations during the course of 2018 with the exception of the last quarter of the year. The LPG prices started on $2.07/kg in January 2018 have since shifted upwards to settle on $3.71/kg in December 2018 as illustrated in the graph below. Paraffin prices also increased between January 2018 and December 2018 starting from $1.34/litre to $1.28/litre as illustrated in the graph below.

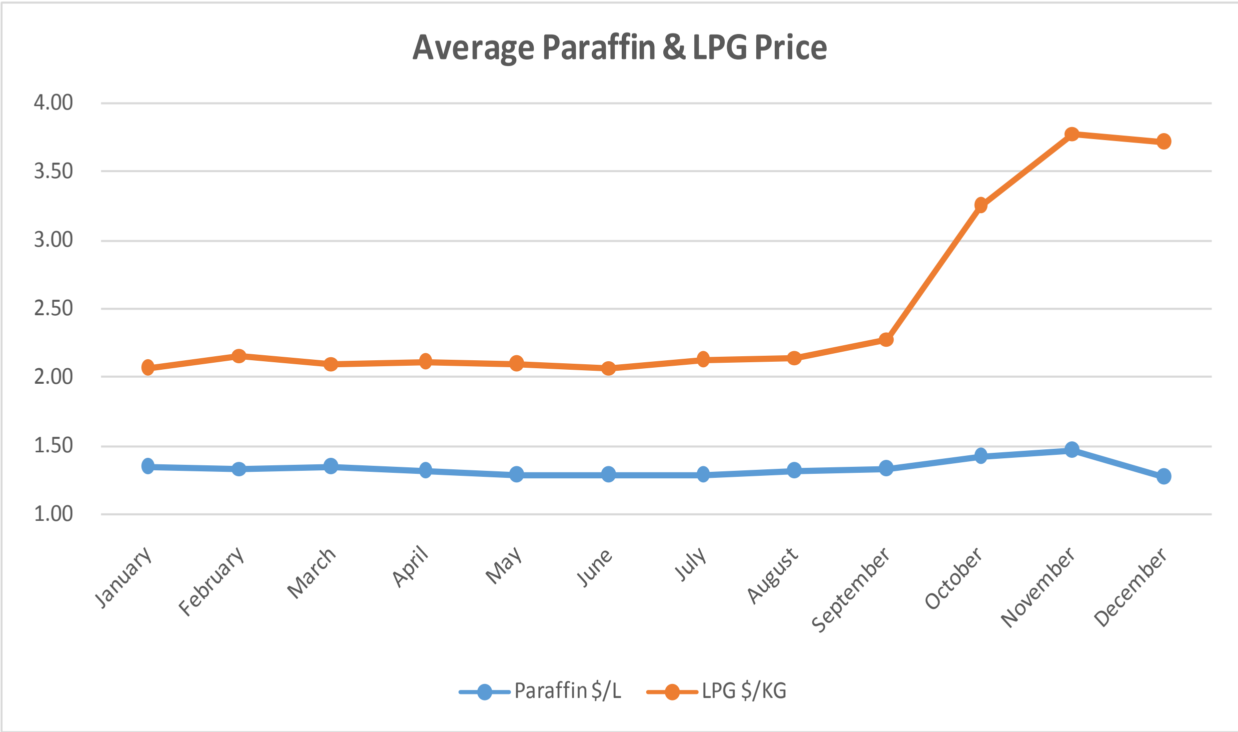


Figure 12: Average Kerosene & LPG prices

8.2.12 Ethanol Prices

Ethanol prices in Zimbabwe were much higher than in other ethanol producing countries in the world. The table shows the ethanol prices in the different international ethanol markets for the period of 2018

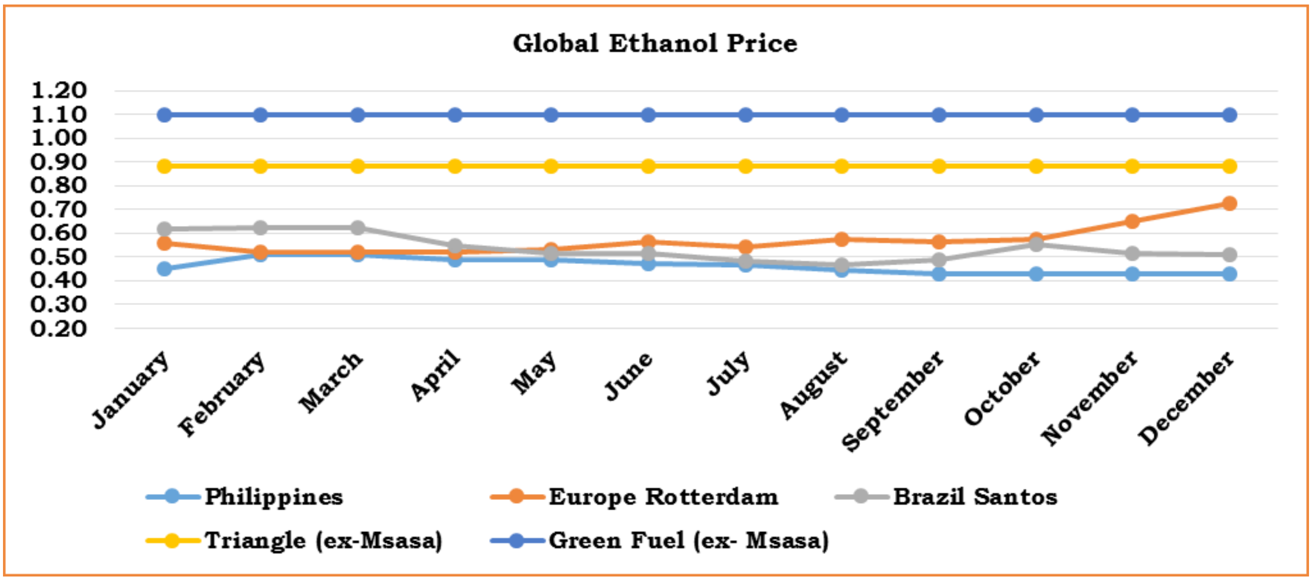


Figure 13: Global Ethanol Prices

***Source is Platts McGraw Hill Financial**


ZERA
VISION
To be a Leader in energy regulatory excelle
by 2025
MISSION
LEDdemoCase
ZERA

Financial Statements for the year ended 31 December 2018

Country of Incorporation and domicile	Zimbabwe
Nature of business and principal activities	Regulation of the Energy Sector in Zimbabwe
Board of Directors	Dr E Khosa (Chairperson) Dr I Jeke (Vice Chairperson) Dr S Ziuku Eng B Nhachi Eng T G Nkiwane Commissioner T Muzoroza Rtd Air Marshal H Muchena
Executive Directors	Mr E Mazambani- Acting Chief Executive Officer Eng M Siyakatshana - Technical Director Mr N Ranga - Acting Finance and Administration Director
Business office	14th Floor Century Towers 45 Samora Machel Avenue Harare ZIMBABWE
Bankers	ZB Bank Limited 4th& 5th Floors ZB House Cnr Speke Avenue/First Street HARARE Stanbic Bank 59 Samora Machel Avenue HARARE
FBC Bank	6th Floor FBC Centre 45 Nelson Mandela Avenue

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The reports and statements set out below comprise the financial statements approved by the Board of Directors.

Director's Responsibilities and Approval

The directors are required in terms of the Energy Regulatory Authority Act (Chapter 13:23) and the Public Finance Management Act (Chapter 22:19) to maintain adequate accounting records and are responsible for the content and integrity of the financial statements and related financial information included in this report. It is their responsibility to ensure that the financial statements fairly present the state of affairs of Zimbabwe Energy Regulatory Authority (ZERA) as at the end of the financial year and the results of its operations and cash flows for the period then ended, in conformity with International Financial Reporting Standards. The external auditors are engaged to express an independent opinion on the financial statements.

The financial statements are prepared in accordance with International Financial Reporting Standards and are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgments and estimates.

The directors acknowledge that they are ultimately responsible for the system of internal financial control established by ZERA and place considerable importance on maintaining a strong control environment. To enable ZERA to meet these responsibilities, the board of directors sets standards for internal control aimed at reducing the risk of error or loss in a cost-effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk.

These controls are monitored throughout ZERA and all employees are required to maintain the highest ethical standards in ensuring ZERA's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in ZERA is on identifying, assessing, managing and monitoring all known forms of risk across ZERA. While operating risk cannot be fully eliminated, ZERA endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The directors are of the opinion, based on the information and explanations given by management that the system of internal controls provides reasonable assurance that the financial records may be relied on for the preparation of the financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatements or loss.

The directors have reviewed ZERA's cash flow forecast for the year to 31 December 2019 and in the light of this review and the current financial position, they are satisfied that ZERA has access to adequate resources to continue in operational existence for the foreseeable future.

The external auditors are responsible for independently reviewing and reporting on ZERA's financial statements. The financial statements have been examined by ZERA's external auditors and their report is presented on pages 4 to 6.

The financial statements were prepared under the supervision of Mr. E Mazambani CA (Z), a registered Public Accountant Zimbabwe. (Reg number 0349). The financial statements set out on pages 7 to 28 which have been prepared on the going concern basis, were approved by the board of directors on 14 June 2019 and were signed on its behalf by:

Approval of financial statements

Dr E Khosa
Board Chairperson

Mr N Ranga
Acting Finance and Administration Director

Mr E.T Mazambani
Acting Chief Executive Office

Independent Auditors Report

To the Members of Zimbabwe Energy Regulatory Authority

Report on the Audit of the financial statements

Opinion

We have audited the financial statements of Zimbabwe Energy Regulatory Authority set out on pages 08 to 30, which comprise the statement of financial position as at 31 December 2018, and the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, because of the significance of the matter described in the Basis for Adverse Opinion section of our report, the financial statements do not present fairly the financial position of Zimbabwe Energy Regulatory Authority as at 31 December 2018, and its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards and the Energy Regulatory Act Chapter 13:23.

Basis for Adverse Opinion

As described in Note 2.4, during the year ended 31 December 2018, the entity transacted using a combination of the United States Dollars (USD), bond notes and bond coins, electronic money and other foreign currencies. Acute shortage of USD cash and other foreign currencies in the country resulted in an increase in utilization of different modes of payment for goods and services such as settlement via the Real Time Gross Settlement (RTGS) system overseen by the Central Bank and mobile money platforms. The note further explains that during the year there was a significant divergence in the market of the relative values between the USD, and the bond note, bond coin, mobile money platforms and RTGS, collectively referred to as "local currency". Although RTGS and mobile money platforms were not legally recognized as currency during the year ended 31 December 2018, the substance of the economic phenomenon suggested that it was currency. In February 2019, an electronic currency called the RTGS dollar was introduced through Statutory Instrument 33 of 2019 (S.I 33/19) with an effective date of 22 February 2019 and the currency commenced trading at a rate of 2.5 to the USD. In addition, S.I 33 fixed the exchange rate between RTGS dollar and the USD at a rate of 1:1 for periods before the effective date. The rate of 1:1 is consistent with the rate mandated by the Central Bank at the time it issued the bond notes and coins as currency.

Although the functional currency of the entity changed from USD to local currency and it was evident that the market exchange rate between USD and local currency was not 1:1, financial statements have been presented in USD using an exchange rate of 1:1, in compliance with S.I 33/19. This constitutes a departure from the requirements of IAS 21.

The directors have performed a sensitivity analysis of how different exchange rates would impact the Organisation's statement of financial position in note 23 to the financial statements however, the amounts presented may not reflect the opening balances in RTGS dollars going forward. This confirms that had the local currency been translated to USD in accordance with IAS 21, elements in the statement of financial position would have been materially affected therefore the departure from the requirements of IAS 21 is considered to be pervasive. The effects of this departure on the Organisation's financial statements have not been determined.

Responsibilities of the directors for the Financial Statements

The directors are responsible for the preparation and fair presentation of the financial statements in accordance with the organisation's basis of accounting, and for such internal control as management determines is necessary to enable the preparation of financial statements that is free from material misstatement whether due to fraud and error.

In preparing the financial statements, management is responsible for assessing the organisation'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 management either intends to liquidate the organisation or cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

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

We conducted our audit in accordance with International Standards on Auditing (ISAs). We are independent of the Organisation in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code), together with the ethical requirements that are relevant to our audit of the financial statements in Zimbabwe, and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the planning and performance of 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 entity'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 director's 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 Zimbabwe Energy Regulatory Authority'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 statements to the related disclosures in the financial statements or, if such disclosure is inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's statements. However future events and conditions may cause Zimbabwe Energy Regulatory Authority to cease to continue as a going concern.

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.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstance, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonable be expected to outweigh the public interest benefits of such communication. There were no key audit matters identified during this audit.

Baker Tilly
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Partner: Fibion Gwatidzo
PAAB Practising Number: 0365
Baker Tilly Chartered Accountants (Zimbabwe)
8 Fletcher Road, Mount Pleasant
Harare

Date: 24 / 06 / 2019

Statement of Financial Position

Figures in US Dollar	Note(s)	2018	2017
Assets			
Non-current assets			
Investment property	3	490,000	565,079
Property, plant and equipment	4	6,699,424	2,840,100
Intangible assets	5	46,327	77,948
		7,235,751	**3,483,127**
Current assets			
Inventory	6	131,745	104,202
Trade and receivables	7	16,423,390	10,417,250
Cash and cash equivalents	8	3,380,877	1,920,009
		19,936,012	**12,441,461**
Total assets		**27,171,763**	**15,924,588**
Equity and liabilities			
Equity			
Reserves		794,854	794,854
Retained income		22,519,010	11,908,807
Total equity		**23,313,864**	**12,703,661**
Liabilities			
Long term liability			
Deferred VAT liability	10	146,316	235,486
Current liabilities			
Current portion of deferred VAT liability	10	141,447	987,436
Trade and other payables	9	3,570,136	1,998,005
Total current liabilities		**3,711,583**	**2,985,441**
Total liabilities		**3,857,899**	**3,220,927**
Total equity and liabilities		**27,171,763**	**15,924,588**

The financial statements and the notes on pages 74 to 96 were approved by the board of directors on 14 June 2019 and were signed on its behalf by:

Dr E Khosa
Board Chairperson

Mr N Ranga
Acting Finance and Administration Director

Mr E.T Mazambani (CA)
Acting Chief Executive Officer

Statement of Profit or Loss and other Comprehensive income

Figures in US Dollar	Note(s)	2018	2017
Income	**11**	10,275,299	9,092,680
Other income	**12**	2,787,528	101,955
Operating expenses	**13**	(8,562,176)	(8,306,538)
Operating surplus		**4,500,651**	**888,097**
Surplus for the year		**4,500,651**	**888,097**
Other Comprehensive Income		**-**	**-**
Total comprehensive income		**4,500,651**	**888,097**
Total Comprehensive Income attributable to:			
ZERA		3,008,535	345,680
Rural Electrification Fund	**14**	1,492,116	542,417
		4,500,651	**888,097**

The accounting policies on pages 78 to 85 and the notes on pages 86 to 96 form an integral part of the financial statements.

Statement of Changes in Equity Figures in USD

Statement of Changes in Equity **Figures in USD**

Details	NDR	Total Reserve	Retained Income	Total Equity
Opening Balance 1 January 2017	**794,854**	**794,854**	**11,563,127**	**12,357,981**
Total surplus for the period	-	-	888,097	888,097
Transfer to Rural Electrification Fund Account			(542,417)	(542,417)
Total Changes	**-**	**-**	**345,680**	**345,680**
Opening Balance 1 January 2018	**794,854**	**794,854**	**11,908,807**	**12,703,661**
Restatement of Prior year allowance for credit losses (IFRS 9)			7,601,668	7,601,668
Total surplus for period			4,500,651	4,500,651
Transfer to Rural Electrification Fund Account	-	-	(1,492,116)	(1,492,116)
Total Changes	**-**	**-**	**10,610,203**	**10,610,203**
Balance for the period	**794,854**	**794,854**	**22,519,010**	**23,313,864**

The accounting policies on pages 78 to 85 and the notes on pages 86 to 96 form an integral part of the financial statements.

Statement of Cash Flows

Figures in US Dollar	Note(s)	2018	2017
Cash flows from operating activities			
Cash generated from operations	**16**	6,264,871	1,501,834
Net cash from operating activities		**6,264,871**	**1,501,834**
Cash flows from investing activities			
Purchase of property and equipment	**4**	(4,285,918)	(732,895)
Purchase of other intangible assets	**5**	(23,876)	(7,104)
Proceeds from sale of asset	-	5,600	
Interest received	**12**	48,209	28,826
Net cash from investing activities		**(4,261,586)**	**(705,574)**
Cash flows from financing activities			
Payment to Rural Electrification Agency		542,417	**-**
Net cash flows from financing activities		**542,417**	**-**
Net increase in cash and cash equivalents		1,460,868	796,260
Cash and cash equivalents at beginning of year		1,920,009	1,123,749
Cash and cash equivalents at end of year	**8**	**3,380,877**	**1,920,009**

The accounting policies on pages 78 to 85 and the notes on pages 86 to 96 form an integral part of the financial statements.

Accounting Policies

1. Reporting entity nature of business

ZERA is a parastatal established by an Act of Parliament, the Energy Regulatory Authority Act (Chapter 13:23) and is wholly owned by the Government of Zimbabwe. The mandate of ZERA is to regulate the energy industry.

2. Basis of preparation

2.1 Statement of compliance

The entity's financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), and in compliance with the Energy Regulatory Authority Act (Chapter 13:23).

2.2 Reporting period

The entity has prepared the financial statements for the year ended 31 December 2018.

2.3 Basis of measurement

The financial statements are based on statutory records that are maintained under historical cost except financial instruments and investment property that are measured at fair value.

2.4 Presentation and functional currency

2.4.1 Background and events since February 2009 to 22 February 2019

In 2009, the Government introduced the multi-currency regime under which several foreign currencies were allowed as legal tender and the United States dollar (USD) became the principal trading currency and was accepted as both the functional and presentation currency of most entities.

Due to shortages of foreign currency, the Reserve Bank of Zimbabwe (RBZ) introduced significant monetary and exchange policy changes between 2016 to date which included among others;

• The introduction of the bond notes in 2016 at a fixed 1:1 rate with the USD. The bond notes and coins were supported by the gazetting of Statutory Instrument 133 of 2016 which prescribed that the bond notes were legal tender and would be at par with the USD.

• The use of Real Time Gross Settlements (RTGS) as the bond notes were in limited supply.

• In October 2018, RBZ instructed the separation and official opening of the Nostro foreign currency accounts and RTGS accounts (FCA RTGS for local electronic transfer and FCA Nostro for actual foreign currency).

• The requirement by the Zimbabwe Revenue Authority through Public Notice Number 45 of 2018 that businesses should remit taxes in the specific currencies in which they collected them without any conversion to RTGS, bond notes, local point of sale and mobile money.

• The monetary policy statement of 20th February 2019 pointed out that Zimbabwe has witnessed significant changes in the economic front, whereby the economy took a different trajectory from a more positive to a highly inflationary trajectory. The economic environment changed significantly in the period September 2018 to February 2019.

• On 20th February 2019, the RBZ introduced the new Zimbabwean currency called the RTGS$ and it was alluded that the RTGS$ was not at parity with the USD.

• The Statutory Instrument 32 of 2019 was issued as an amendment to the Reserve Bank of Zimbabwe Act to legalise the new currency, the RTGS Dollar. The Exchange Control Directive RU 28 of 2019 was issued on the same day and introduced an interbank market for the RTGS Dollar and the USD as well as other existing currencies in the multi-currency regime. The interbank rate on 20 February was USD1: 2.5 RTGS$.

• On 22nd February 2019, Statutory Instrument 33 of 2019 specified among other things, that for accounting and other purposes, all assets and liabilities that were immediately before the effective date valued in United States Dollars (other than assets and liabilities referred to in section44C (2) of the Reserve Bank of Zimbabwe Act) shall on and after the effective date deemed to be in RTGS dollars at a rate of one-to-one to the United States Dollar.

• On 1 March 2019, the Minister of Finance and Economic Development, through Statutory Instrument 41 of 2019, prescribed International Financial Reporting Standards (IFRS),International Accounting Standards(IASs),Interpretations originated from the International Financial Reporting Interpretations Committee(IFRICs),Interpretations originating from Standing Interpretations Committee(SICs),IFRS for SMEs, International Standards on Auditing(ISAs),International Public Sector Accounting Standards(IPSASs),International Education Standards(IESs) and International Code of Ethics for Professional Accountants(including International Independence Standards) for use in Zimbabwe.

• Management complied with Statutory Instrument 41 of 2019 which formally prescribed IFRS as the financial reporting framework.

• Some entities operating in Zimbabwe applied a multi-tiered pricing structure during the period under review consideration, where a single product had different prices depending on the mode of payment, whether USD cash, electronic payment, mobile money or bond notes. This resulted in transactions bearing similarities to what one would expect with transactions that are undertaken in different currencies to which ISA 21 The Effect of Changes in Foreign Exchange Rates would apply.

• Statutory Instrument 133 of 2016, Statutory Instrument 33 of 2019 and the Monetary Policy Statements of the 22nd of February 2018, 1st of October 2018 and 20th of February 2019 all confirmed the parity of 1:1 between RTGS balances and Bond Notes, and the USD.

• Statutory Instrument 33 of 2019 which moved from the parity of RTG$ and USD had challenges in terms of compliance with IFRSs due to possible conflict with ISA 21. ISA 21 requires the use of a spot rate in accounting for transactions.

• Management applied requirements of ISA 21 Effects of Changes in Foreign Exchange Rates. The assessment covered the financial statements as a whole, including the Statement of Financial Position and the Statement of Comprehensive Income.

• Events after the Reporting Period (ISA 10) were considered during the preparation of the 2018 financial statements .Non-adjusting events after the reporting period, are events indicative of conditions that arose after the reporting period.

• Whilst preparing the Financial statements management took note of the following events among any other relevant events;

(i) The Monetary Policy Statement of the 20th of February 2019;

(ii) Exchange Control Directive RU 28 of 2019 which introduced an interbank market for the RTGS Dollar and the USD issued on the 22nd of February 2019;

(iii) Statutory Instrument 33 of 2019 issued on the 22nd of February 2019 which, for accounting and other purposes, deemed all assets and liabilities that were valued in USD immediately before the 22nd of February 2019 to be valued in RTGS Dollars at a rate of 1:1.

2.4.3 ZERA position on presentation and functional currency for the period

Management having considered the events for the period 2016 to 22nd February 2019 and the guidance of PAAB took the following position;

(i) The presentation and the functional currency shall be USD in line with the provisions of Statutory Instrument 33 of 2019.

(ii) All the assets and liabilities procured through either USD or RTGS up to 31 December 2018 were deemed to be valued in USD in line with Statutory Instrument 33 of 2019 which stipulated that the USD and the RTGS Dollars were to be valued at a rate of 1:1.

2.5 Critical accounting judgments assumptions and estimates

In preparing the financial statements, management is required to make estimates and assumptions that affect the amounts presented in the financial statements and related disclosures. The use of available information and the application of judgment is inherent in the formation of estimates. Actual results in the future may differ from these estimates, which may be material to the financial statements. Estimates and underlying assumptions are reviewed on an on-going basis. Revision to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Significant judgments include the following:

2.5.1 Allowance for credit losses IFRS 9 adoption

In previous years and In line with IAS 39 financial instrument standard, ZERA estimated the allowance for credit losses basing on management's assessment of collection indicators to determine the rate to be applied. However, effective 1 January 2018, a new standard IFRS 9 was introduced regarding the measurement of Allowance for Credit Losses. ZERA restated the allowance for credit losses using the expected credit loss model (ECL) under IFRS 9 on 01 January 2018 receivables and a decrease in allowance for credit losses was recognized and an adjustment of US$ 7 601 668 was made to opening retained earnings on 01 January 2018.The full impact of IFRS 9 is on note 7.

2.5.2 Investment property fair value

ZERA engages professional valuers to estimate the fair value of its investment property. Based on these estimates adjustments are made to the carrying value of the related assets. For the year ended 31 December 2018, Dawn Property Consultancy was engaged to determine the fair value.

2.5.6 Useful lives and residual values of property, plant and equipment

ZERA assesses useful lives and residual values of property, plant and equipment each year considering past experience and technological changes. The depreciation rates are set out in note 2.8.The residual values for the year were assessed and have been noted as adequate. The residual values were assessed to be $5,892,237 (2017 $1,964 237) for property, plant and equipment and this relates to Land and capital work in progress. For other property, plant and equipment residual values were assessed to be $Nil (2017 $Nil).

2.6 New Standards effective 1 January 2018 and 1 January 2019

2.6.1 IFRS 15 Revenue from contracts with customers

The new standard requires entities to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This core principle is achieved through a five-step methodology that is required to be applied to all contracts with customers.

The new standard also resulted in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively and improve guidance for multiple-element arrangements.

The new standard supersedes:

a) IAS 11 Construction Contracts;

b) IAS 18 Revenue.

ZERA has adopted and applied IFRS 15 from 01 January 2018

2.6.2 IFRS 9 Financial instruments

The standard incorporates final requirements on three phases of the financial instruments' projects classification and measurement, impairment and hedge accounting.

A finalised version of IFRS 9 has been issued which replaces IAS 39 Financial Instruments: Recognition and Measurement. The completed standard comprises guidance on Classification and Measurement, Impairment, Hedge Accounting and Derecognition: IFRS 9 introduces a new approach to the classification of financial assets, which is driven by the business model in which the asset is held and their cash flow characteristics. A new business model was introduced which does allow certain financial assets to be categorised as "fair value through other comprehensive income" in certain circumstances. The requirements for financial liabilities are mostly carried forward unchanged from IAS 39. However, some changes were made to the fair value option for financial liabilities to address the issue of own credit risk.

The new model introduces a single impairment model being applied to all financial instruments, as well as an "expected credit loss" model for the measurement of financial assets.

IFRS 9 contains a new model for hedge accounting that aligns

the accounting treatment with the risk management activities of an entity, in addition enhanced disclosures will provide better information about risk management and the effect of hedge accounting on the financial statements.
ZERA has adopted and applied IFRS 9 from 01 January 2018

2.6.3 IFRS 16 Leases

The new standard that introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. A lessee measures right-of-use assets similarly to other non-financial assets (such as property, plant and equipment) and lease liabilities similarly to other financial liabilities. Consequently, a lessee recognises depreciation of the right-of-use asset and interest on the lease liability and classifies cash repayments of the lease liability into a principal portion and an interest portion and presents them in the statement of cash flows applying IAS 7 Statement of Cash Flows.
IFRS 16 contains expanded disclosure requirements for lessees. Lessees will need to apply judgement in deciding upon the information to disclose to meet the objective of providing a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of the lessee.
IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently.
IFRS 16 also requires enhanced disclosures to be provided by lessors that will improve information disclosed about a lessor's risk exposure, particularly to residual value risk. For example, the amendments make clear that materiality applies to the whole of financial statements and that the inclusion of immaterial information can inhibit the usefulness of financial disclosures. Furthermore, the amendments clarify that entities should use professional judgment in determining where and in what order information is presented in the financial disclosures. Effective 1 January 2019

2.7 Revenue recognition

As per IFRS 15, revenue is recognized on accrual basis and the revenue categories of the entity are as follows;

2.7.1 Electricity annual levies

Levies are charged at 1% of electricity sales to electricity generating, transmission and distributing companies in terms of Statutory Instrument number 6 of 2008.

2.7.2 Electricity license application fees

License application fees are charged to all companies and individuals who submit applications to obtain any form of trading license in terms of Statutory Instrument number 55 of 2015.

2.7.3 License fees

Electricity License fees are charged to new companies who are into the generation, transmission and distributing companies in terms of Statutory Instrument number 55 of 2015.
LP Gas license fees are charged in terms of Statutory Instrument number 57 of 2014.

License fees for the Petroleum sub-sector vary depending on the category of business as follows;

(a) Blending
(b) Procurement
(c) Production
(d) Retail
(e) Wholesalers

2.7.4 Interest received

Interest income is recognised as revenue as is interest accrued in line with IFRS 9

2.8 Property, plant and equipment

The cost of an item of property and equipment is recognised as an asset when:
• It is probable that future economic benefits associated with

the item will flow to the company.
• The cost of the item can be measured reliably.
Property, plant and equipment is initially measured at cost. Costs include costs incurred initially to acquire or construct an item of property and equipment and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of property and equipment, the carrying amount of the replaced part is derecognised.

Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses.

Property, plant and equipment are depreciated on the straight-line basis over their expected useful lives to their estimated residual value.

Depreciation is provided for on a straight-line basis over the assets' expected economic useful lives on the following rates:

Item	Depreciation Rates
Furniture and fixtures	20%
IT equipment	33.3%-50%
Land	-
Library books	20%
Motor vehicles	20%
Office equipment	20%
Office partitions	4%
Other property and equipment	33.3%-50%

Depreciation commences in the next month of purchase and it ceases when the asset is no longer in use or is disposed.
The residual value, useful life and depreciation method of each asset are reviewed at the end of each reporting period. If the expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.
The gain or loss arising from derecognition of an item of property and equipment is included in profit or loss when the item is derecognised. The gain or loss arising from derecognition of an item of property and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

Impairment of assets assessment

The carrying amounts of ZERA assets are reviewed at each financial reporting date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated. An impairment loss is recognised in the statement of comprehensive income whenever the carrying amount of an asset exceeds its recoverable amount.

2.9 Investment property

Investment property is initially recognized at cost and subsequently measured at fair value at every Statement of Financial Position date.

2.10 Intangible assets

Intangible assets are shown at cost less accumulated amortisation and impairment. Amortisation is provided for on a straight-line basis over the assets expected economic lives on the following rates:

Item	Amortisation rates
Computer software	33.33%
Motor vehicle branding	20%
ZERA logo	20%
ZERA reception branding	20%
ZERA website	20%

2.11 Provisions

Provisions are recognized when ZERA has a present legal or constructive obligation because of past events, if it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount can be made.

2.12 Employee benefits

Employee benefits are the consideration given by ZERA in exchange for services rendered by employees. In summary the benefits are;

Short-term benefits

Benefits earned by employees under normal employment terms including salaries, bonuses and leave pay. These are expensed as earned and accordingly provisions are made for unpaid bonuses and leave pay.

Post- employment benefits

Contributions to Old Mutual Pension Fund and Group Life Cover are expensed as and when incurred. All employees contribute to the National Social Security Authority pension scheme and the amounts are included in the determination of surplus for the year.

2.13 Corporate tax

ZERA is exempt from paying corporate tax in accordance with the Income Tax Act (Chapter 23:06).

2.14 Inventory

Inventory is valued at the lower of cost and net realisable value. Cost is calculated using the weighted average price method.

2.15 Foreign currency transactions

Transactions in foreign currency are translated into United States dollars at rates of exchange prevailing at date of transaction. At each statement of financial position date, monetary assets and liabilities that are dominated in foreign currencies are translated at the rates prevailing on the statement of financial position date. Gains and losses arising on exchange are included in the statement of comprehensive income for the period.

2.16 Financial instruments

Classification

ZERA classifies financial assets and financial liabilities into the following categories:

- Financial assets at fair value through profit or loss – designated.
- Loans and receivables.
- Financial liabilities measured at amortised cost.

Classification depends on the purpose for which the financial instruments were obtained / incurred and takes place at initial recognition. Classification is re-assessed on an annual basis, except for financial assets designated as at fair value through profit or loss, which shall not be classified out of the fair value through profit or loss category.

Initial recognition and measurement

Financial instruments are recognized initially when ZERA becomes a party to the contractual provisions of the instruments. ZERA classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement. Financial instruments are measured initially at fair value, except for equity investments for which a fair value is not determinable, which are measured at cost and are classified as available-for-sale financial assets. For financial instruments that are not at fair value through profit or loss, transaction costs are included in the initial measurement of the instrument. Transaction costs on financial instruments at fair value through profit or loss are recognised in profit or loss.

Subsequent measurement

Financial instruments at fair value through profit or loss are subsequently measured at fair value, with gains and losses arising from changes in fair value being included in profit or loss for the period. Net gains or losses on the financial instruments at fair value through profit or loss includes interest. Loans and receivables are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

Impairment of financial assets

At each reporting date ZERA assesses all financial assets, other than those at fair value through profit or loss, to determine whether there is objective evidence that a financial asset or group of financial assets has been impaired. For amounts due to ZERA, significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default of payments are all considered indicators of impairment. In the case of equity securities classified as available for sale, a significant or prolonged decline in the fair value of the security below its cost is considered an indicator of impairment. If any such evidence exists for available-for-sale financial assets, the cumulative loss measured as the difference between the acquisition cost and current fair value, less any impairment loss on that financial asset previously recognised in profit or loss - is removed from equity as a reclassification adjustment to other comprehensive income and recognised in profit or loss. Impairment losses are recognised in profit or loss.

Impairment losses are reversed when an increase in the financial asset's recoverable amount can be related objectively to an event occurring after the impairment was recognised, subject to the restriction that the carrying amount of the financial asset at the date that the impairment is reversed shall not exceed what the carrying amount would have been had the impairment not been recognised. Reversals of impairment losses are recognised in profit or loss except for equity investments classified as available-for-sale. Impairment losses are also not subsequently reversed for available-for-sale equity investments which are held at cost because fair value was not determinable. Where financial assets are impaired through use of an allowance account, the amount of the loss is recognised in profit or loss within operating expenses. When such assets are written off, the write off is made against the relevant allowance account. Subsequent recoveries of amounts previously written off are credited against operating expenses.

Loans to directors, managers and employees

These financial assets are classified as loans and receivables.

Trade and other receivables

Trade receivables are measured at initial recognition at fair value and are subsequently measured at amortised cost using the effective interest rate method. Appropriate allowances for estimated irrecoverable amounts are recognised in profit or loss when there is objective evidence that the asset is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments are considered indicators that the trade receivable is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognised in profit or loss within operating expenses. When a trade receivable is uncollectable, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against operating expenses in profit or loss. Trade and other receivables are classified as loans and receivables.

Trade and other payables

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

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. These are initially and subsequently recorded at fair value.

2.17 Value Added Tax (VAT)

VAT is accounted for on accrual basis but remittance to Zimbabwe Revenue Authority (ZIMRA) is on cash basis .This was after ZIMRA approved for the use of the cash basis. The difference which arises between accrual and cash basis is classified under long term liability as Deferred VAT liability in the Statement of Financial Position. However, there is no obligation to settle it with ZIMRA, the liability will clear when the cash amount received from electricity receivables exceeds the invoiced value. ZERA had collected amounts from which VAT is due to ZIMRA and is included in the Trade and other payables figure in the Statement of Financial Position.

2.18 Leases

Operating lease payments are recognised as an expense on a straight-line basis over the lease term, except if another systematic basis is more representative of the time pattern in which economic benefits will flow to ZERA.

Contingent rentals arising under operating leases are recognised in the period in which they are incurred. Lease incentives and similar arrangements of incentives are taken into account when calculating the straight-line expense.

Investment Property

Dollars	2018			2017		
	Carrying value	Fair value adjustment	Valuation	Carrying Value	Fair value adjustment	Valuation
Investment property	**565,079**	**(75,079)**	**490,000**	**565,079**	**-**	**565,079**

Reconciliation of Investment Property – 2018

	Opening balance	Fair value adjustment	Total
Investment property	565,079	(75,079)	490,000

Reconciliation of Investment Property – 2017

	Opening balance	Fair value adjustment	Total
Investment property	**565,079**	**-**	**565,079**

ZERA employed the services of professional valuer (Dawn Property Consultancy) to determine the 2018 fair value of the investment property, and in 2017 a management revaluation was done.

4. Property, plant and equipment

	2018			2017		
	Cost`	**Accumulated depreciation**	**Carrying value**	**Cost**	**Accumulated depreciation**	**Carrying value**
Furniture and fixtures	369,029	(165,073)	203,957	199,318	(122,530)	76,788
IT equipment	352,740	(223,030)	129,709	247,161	(133,932)	113,229
Land	511,225	-	511,225	511,225	-	511,225
Library books	4,592	(3,659)	933	4,490	(2,756)	1,734
Motor vehicles	1,255,933	(951,059)	304,874	1,577,744	(1,076,280)	501,464
Office equipment	18,876	(11,738)	7,138	16,432	(7,479)	8,953
Office partitions	100,731	(22,664)	78,067	90,609	(18,851)	71,758
Other assets	625,210	(542,701)	82,509	563,847	(461,910)	101,937
W.I.P - building	5,381,012	-	5,381,012	1,453,012	-	1,453,012
Total	**8,619,348**	**(1,919,924)**	**6,699,424**	**4,663,838**	**(1,823,738)**	**2,840,100**

Reconciliation of property plant and equipment 2018	Opening balance	Additions	De-recognition	Depreciation	Total
Furniture and fixtures	76,78	169,712	-	(42,543)	203,957
IT equipment	113,229	110,276	(1,816)	(91,979)	129,709
Land	511,225	-	-	-	511,225
Library books	1,734	102	-	(903)	933
Motor vehicles	501,464	416	(4,789)	(192,218)	304,874
Office equipment	8,953	2,445	-	(4,259)	7,138
Office partitions	71,758	10,122	-	(3,813)	78,067
Other assets	101,937	64,847	(1,820)	(82,454)	82,509
W.I.P building	1,453,012	3,927,999	-	-	5,381,012
	2,840,100	**4,285,918**	**(8,426)**	**(418,169)**	**6,699,424**

Reconciliation of property plant and equipment 2017	Opening balance	Additions	De-recognition	Depreciation	Total
Furniture and fixtures	89,224	22,855	-	(35,292)	76,787
IT equipment	124,767	60,889	1,827	(70,600)	113,229
Land	511,225	-	-	-	511,225
Library books	2,632	-	-	(898)	1,734
Motor vehicles	613,735	142,174	-	(254,445)	501,464
Office equipment	3,267	9,048	-	(3,362)	8,953
Office partitions	72,127	3,299	-	(3,668)	71,758
Other property, plant and equipment	175,613	60,464	1,542	(132,598)	101,937
W.I.P building	1,018,846	434,166		-	1,453,012
	2,611,436	**732,895**	**3,369**	**(500,863)**	**2,840,000**

5. Intangible assets

	2018			2017		
	Cost	**Accumulated Amortisation**	**Carrying Value**	**Cost**	**Amortized Amortisation**	**Carrying Value**
Computer software	177,797	(131,718)	46,079	153,921	(77,130)	76,791
Motor vehicle branding	1,594	(1,346)	248	1,594	(1,027)	567
ZERA logo	3,652	(3,652)	-	3,652	(3,652)	-
ZERA reception branding	1,532	(1,532)	-	1,532	(1,294)	238
ZERA website	2,348	(2,348)	-	2,348	(1,995)	352
Total	**186,924**	**(140,597)**	**46,327**	**163,047**	**(85,099)**	**77,948**

Reconciliation of intangible assets - 2018

	Opening Balance	Additions	Amortisation	Total
Computer software	76,791	23,876	(54,589)	46,079
Motor vehicle branding	567	-	(319)	248
ZERA logo	-	-	-	-
ZERA reception branding	238	-	(238)	-
ZERA website	352	-	(352)	-
Total	**77,948**	**23,876**	**(55,498)**	**46,327**

Reconciliation of intangible assets - 2017

	Opening Balance	Additions	Amortisation	Total
Computer software	119,104	7,104	(49,417)	76,791
Motor vehicle branding	886	-	(319)	567
ZERA logo	286	-	(286)	-
ZERA reception branding	544	-	(306)	238
ZERA website	822	-	(470)	353
Total	**121,642**	**7,104**	**(50,798)**	**77,948**

6. Inventory	**2018**	**2017**
Cartridges	73,799	13,585
Cleaning materials	317	456
Consumables	10,568	1,242
Fuel coupons	1,887	2,969
Promotional material	14,335	29,681
Seals	-	870
Stationery	27,240	54,797
Teas and beverages	3,599	602
	131,745	**104,202**

7. Trade and other receivables

Trade receivables	20,687,485	24,618,120
Prepayments	324,464	276,810
Other receivables	250,291	183,661
	21,262,240	**25,078,591**

Ageing for trade receivables

Within maturity (0-30 days)	-	743,152
31-60 days	-	792,691
61-180 days	-	765,879
180-360 days	-	754,761
Over 360 days	21,262,240	22,022,108
	21,262,240	**25,078,591**

Trade and other receivables impairment

As at 31 December 2018, trade and other receivables amounted to $21, 262,240 (2017 - $25,078,591) and these were reviewed for impairment. An amount of $74,723 was written off during the year and $140,000 was written off in 2017.

The allowance for credit losses as at 31 December 2018 was $4,838,850 (2017- $15,121,812) and the decrease was a result of new standard adapted IFRS 9 financial Instruments. The standard effective date was 01 January 2018.

On 01 January 2018 to comply with the new standard IFRS 9, the allowance for credit losses were remeasured using the expected credit loss model (ECL) .Using the ECL model the allowance for credit losses figure decreased from $15,812,812 to $7,520,145 and on 31 December 2018 another measurement was done and the figure decreased further by $2,681,295 to close at $4,838,850.The decrease in allowance for credit losses is also attributed to improved receipts of levies from electricity receivables.

Movement in allowance for credit losses

	2018	2017
Opening balance as at 1 January	15,121,812	14,843,223
Adjustment on IFRS 9 Implementation	(7,601,667)	-
Re-measured Allowance for Credit loss IFRS 9 01 January 2018	7,520,145	-
Decrease/ (Increase) in Allowance for credit losses	2,681,295	278,589
Balance as at 31 December	4,838,850	15,121,812

8. Cash and cash equivalents

Cash and cash equivalents consist of:

Bank balances	614,592	1,210,719
Cash on hand	595	7
Short term deposits	2,765,690	709,283
	3,380,877	**1,920,009**

Short term deposits, the 30-day interest ranges rates between 2.4% to 3.5% per annum.

9. Trade and other payables

Trade payables	286,930	186,423
Rural Electrification Fund	1,492,116	542,417
VAT payable	141,447	177,383
Other accruals and provisions	404,067	247,759
Deferred income	1,245,576	844,023
	3,570,136	**1,998,005**

10. Deferred VAT liability

Outstanding VAT based on accruals concept	287,763	1,400,305
Outstanding cash VAT due and payable to ZIMRA	(141,447)	(177,383)
Deferred VAT Liability	**146,316**	**1,222,922**
Non-Current portion	146,316	235 486
Current portion	141,447	987 436
	287,763	**1,222,922**

11. Income

Electricity annual levies	8,197,644	7,635,732
Electricity license application fees	52,500	51,500
Electricity license fees	340,000	211,320
Liquid petroleum gas license fees	36,100	20,650
Petroleum license fees	1,649,055	1,173,478
	10,275,299	**9,092,680**

12. Other income	**2018**	**2017**
Insurance proceeds	3,452	1,415
Interest received	48,209	28,826
Reduction in allowance for credit losses	2,681,294	-
Miscellaneous	4,163	-
Profit on disposal of Asset	-	5,600
Rental income	30,000	30,000
RERA conference donations receipts	-	7,975
Tender Income	1,504	2,757
Training registration fees	9,492	12,899
Unlicensed petroleum operator's fees	9,100	12,135
Loan administration commission	314	348
	2,787,528	**101,955**

13. Operating expenses

The following items are included within operating expenses:		
Allowance for credit losses	-	278,589
Audit fees	11,025	10,500
Bad debts	74,723	140,000
Bank charges	93,114	25,446
Board fees	97,198	92,150
Computer expenses	7,183	31,184
Consulting and professional fees	480,503	498,229
Consumables	141,529	47,824
Depreciation and Amortisation	473,666	551,660
Donations and CSR	481,947	614,950
Employee costs	4,162,137	3,690,077
Entertainment	11,605	988
Impairment and loss on de-recognition of assets	83,320	3,369
Insurance	58,202	40,493
Lease rentals on operating lease	234,219	219,931
Motor vehicle expenses	226,911	160,476
Postage	927	1,426
Printing and stationery	120,585	86,877
Promotions, advertising and publicity	461,193	562,746
Repairs and maintenance and office administration	216,621	145,248
Research and development	87,753	165,648
Subscriptions	82,381	84,324
Telephone and fax	142,062	89,386
Travel external	125,687	233,129
Travel local	287,474	213,849
Workshops and seminars	400,211	318,029
	8,562,176	**8,306,538**

14. Income attributable to Rural Electricity Fund

According to the Energy Regulatory Act, ZERA is required to remit surplus recorded in the electricity account to the Rural Electrification Fund. As at 31 December 2018 an audited electricity receipts and expenditure statement was prepared, and the account recognised a cash surplus of $1,492,116 and in 2017 a cash surplus of $542,417 was recognised.

15. Related party disclosures -

Executive management remuneration and benefits	593,861	706,776
Board members' fees	97,198	92,150
	691,059	**798,926**
Other transactions		
Donations to Ministry of Energy and Power Development	246,022	321,076
Total related party transactions	**937,081**	**1,102,002**

The amount disclosed above is the amount recognized as an expense during the reporting period related to board members' fees (2018 $97,198 and 2017 $92,150) and key management personnel (2018 $593,861 and 2016 $706,776). For key management personnel, the figure includes salary and bonus, medical aid, pension, security and motoring benefits. No performance bonus was paid in 2018, hence a reduction of Executive management remuneration.

16. Cash generated from operations

Surplus for the year	4,500,651	888,097
Adjustment for :		
Depreciation and Amortisation	473,666	551,660
Impairment and de-recognition loss	8,426	3,369
Interest received	(48,209)	(28,826)
Investment property impairment	75,079	-
Inventories	(27,543)	(50,446)
Profit on disposal of asset	-	(5,600)
Trade and other payables	(312,727)	566,027
Trade and other receivables	(1,595,528)	(422,447)
Net cash flow from operations	**6,264,871**	**1,501,834**

17. Commitments - authorized operational and capital expenditure

17.1 Authorised by directors and contracted

Flash Point Tester	-	43,756
LED Lights Retrofitting at Mpilo Hospital Bulawayo	-	88 205
Mount Pleasant Office Construction	15,000,000	
Motor Vehicle	600,000	60,000
Pilot Global Fuel Economy	-	27,000
	15,600,000	**218,961**

17.2 Authorised by directors and not yet contracted

	2018	**2017**
Density Tester and Meter	-	40,000
Distillation Unit	-	40,000
Distillation Unit	-	40,000
LPG Sulphur Tester	-	80,000
Mobile Office Van	-	120,000
Motor Vehicles	755,000	900,000
Mount Pleasant Office Construction	-	12,100,180
PA System	-	10,000
Portable Solar PV Test Kit	200,000	200,000
Power Quality Meters	-	340,000
Video Conferencing	50 000	50,000
	1,005,000	**13,920,180**

All items in Note 17.1 and 17.2 except for Mount Pleasant Office construction will be funded from available cashflows. Mount Pleasant offices construction will be financed from available cashflows whilst the greater part will be financed by a mortgage.

18 Lease commitment

ZERA entered into a lease agreement with Old Mutual Properties, Zimbabwe International Trade Fair and Zimre Properties for rental of office space. This lease has a remaining term of one year

Future minimum rental payable are as follows as at 31 December 2018

Within one year	$139,711
After one year	$139,711
Total	**$279,422**

19. Risk management

ZERA has in place a Risk management policy whose thrust is on identifying, assessing, managing and monitoring all known forms of risk across the organization. While risks cannot be fully eliminated, ZERA endeavors to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints. The following are the financial risks pertaining to 2018 financial statements.

19.1 Financial risk management

ZERA's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk), credit risk and liquidity risk.

19.1.1 Interest rate risk

ZERA has significant interest bearing assets, these assets relate to investments that are at market rates. ZERA has invested in fixed interest money market investments, hence interest receivable is not affected by fluctuations of interest rates and as a result the sensitivity analysis was not performed.

19.1.2 Credit risk

Credit risk consists mainly of cash deposits, cash equivalents and trade debtors. ZERA only deposits cash with major banks with sound financial standing. The followings were the banks and financial partners ZERA dealt with in 2018:

(a) CABS

(b) FBC

(c) ZB

(d) Stanbic

(e) EcoCash

Trade receivables comprise a widespread customer base. Management evaluated credit risk relating to customers on an on-going basis. If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by the board. The utilisation of credit limits is regularly monitored.

Financial assets exposed to credit risk at year-end were as follows:

Financial Instrument	2018	2017
Cash and cash equivalents	3,380,877	1,920,009
Trade and other receivables	21,262,240	25,817,651

19.1.3 Liquidity risk

ZERA maintains sufficient cash and marketable securities. Management reviews cash flow forecasts on a regular basis to determine whether ZERA has sufficient cash reserves to meet future working capital requirements and to fund initiatives to fulfill mandate. ZERA has good relations with financial institutions to access additional means of easing liquidity risk if considered necessary. Average creditor payment period in 2018 was 10 days (2017 -11 days)

Contractual maturity analysis for financial liabilities

Financial Liabilities	Due in 3 months	Due in 4 to 6 months	Due in 7 to 12 months	Due in more than 1 Year	Totals
2018					
Trade and other payables	2,078,020	1,492,116	-	-	3,570,136
Long term liability	141,447	146,316	-	-	287,763
Totals	**2,219,467**	**1,638,432**	**-**	**-**	**3,857,899**
2017					
Trade and other payables	1,037,028	177,144	783,833	-	1,998,005
Long term liability		987,436		235,486	1,222,922
Totals	**1,037,028**	**1,164,580**	**783,833**	**235,486**	**3,220,927**

20. Contingencies liabilities

20.1 Collective bargaining agreement

The Authority is being sued by employees for allegedly incorrectly implementing the 2012 collective bargaining agreement. The Labour Court ruled in favour of the Authority and the employees appealed to the Supreme Court challenging the ruling. The chances of employees winning the case are remote ,however ,if the employees win the case the liability like to arise is more than $246 000.

20.2 ZERA vs dismissed employee

The Authority is being sued by a former employee who was dismissed in 2017 for a misconduct. The Labour Court ruled in favour of the Authority and the employee appealed to the Supreme Court challenging the ruling. The chances of the employee winning the case are remote. There were no contingent liabilities in 2017 since these cases had been ruled in favour of the Authority.

21. Pensions and Retirement benefits

Details	2018	2017
National Social Security Authority	46,481	40,459
Old Mutual Pension Fund	154,702	146,427
Total	**201,183**	**186,886**

22. Going concern

Management has assessed the ability of ZERA to continue operating as a going concern and believe that the preparation of these financial statements on a going concern is still appropriate.

23. Subsequent events

• On 20th February 2018, the RBZ introduced the RTGS Dollar and it was announced that the RTGS Dollar was not at par with the USD.The Exchange Control Directive RU 28 of 2019 was issued on the same day which introduced an interbank foreign exchange market for the RTGS Dollar and the USD as well as other existing currencies in the multi-currency regime. The rate as at 20 February 2019 for the RTGS Dollar and USD was USD1: 2.5 RTGS$.

• Following this announcement, the PAAB came out with a guidance framework on how the financial statements for 2018 financial year were supposed to be prepared.

• As recommended by the PAAB guidance framework, ZERA has provided a disclosure as indicated in the table below to show the full impact brought by the Exchange Directive RU 28 of 2019.

• Management performed a sensitivity analysis of the effect of using different exchange rates following the change in the functional currency from US$ to RTGS$ for 2018. The table below illustrates the different scenarios based on the RTGS$ exchange rates to the US$ of 1:1, 1:2.5, 1:3.0 and 1:4.0

Sensitivity Analysis

Key Assumptions:

• The company applied the following assumptions in coming up with this disclosure:

• Nostro refers to the international USD that is tradable on international markets

• An additional rate of RTGS$4/USD was applied in coming up with the sensitivity analysis. The rate is believed to be the parallel market rate prevailing at 31 December 2018.

• Although share capital is denominated in Nostro USD following redenomination of share capital to USD in 2010, it is assumed to be in RTGS dollars.

• The same applies to all other reserves not withstanding that they were accumulated in a Nostro USD environment.

• The difference between net assets and the resultant equity at translation (the balancing figure) has been treated as a translation reserve in equity.

• Non-monetary assets are ordinarily translated at the spot rate at date of purchase. The assumed spot date is 31 December 2018.

		Components of reported amounts			Sensitivity Analysis		
Element	**Monetary Liabilities Nostro FCA USD**	**Monetary Assets/ (Liabilities) RTGS Dollar**	**Non-Monetary Assets/ (Liabilities) USD**	**Total RTGS$ @ 1:1**	**Total RTGS$ @ 1:2.5**	**Total RTGS$ @ 1:3.0**	**Total RTGS$ @ 1:4.0**
Assets							
Investment property	-	-	490,000	490,000	1,225,000	1,470,000	1,960,000
Property and equipment	-	3,995,850	2,703,574	6,699,424	10,754,785	12,106,572	14,810,146
Intangible assets	-	9,632	36,695	46,327	101,369	119,717	156,411
Inventory		131,745	-	131,745	131,745	131,745	131,745
Trade and other receivables		16.402.418	20,972	16.423.390	16,454,848	16,465,334	16,486,306
Cash and Cash equivalents	-	3,380,877	-	3,380,877	3,380,877	3,380,877	3,380,877
Total assets	-	23,920,522	3,251,241	27,171,763	32,048,624	33,674,245	36,925,485
Liabilities							
Accounts payables	-	3,654,568	203,331	3,857,899	4,162,896	4,264,561	4,467,892
Total liabilities	**-**	**3,654,568**	**203,331**	**3,857,899**	**4,162,896**	**4,264,561**	**4,467,982**
Equity							
Reserves	-	794,854	-	794,854	794,854	794,854	794,854
Retained Income	-	22,519,010	-	22,519,010	22,519,010	22,519,010	22,519,010
Foreign currency translation reserve	-	-	-	-	4,571,865	6,095,820	9,143,729
Total Equity	**-**	23,313,864	**-**	23,313,864	**27,885,729**	29,409,864	**32,457,593**
Total Equity and Liabilities		26,822,116	**203,331**	27,171,763	**32,048,624**	33,674,245	**36,925,485**

The numbers indicated in the above table do not necessarily reflect expected opening balances in RTGS$ for the 2019 financial statement.

Notes

Notes

Notes

2018

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