KAFUE GORGE
REGIONAL TRAINING CENTRE

BUSINESS PLAN 2013-2017

VISION

The Learning and Development Centre of Choice in Energy Technologies.

MISSION

Provide a Learner-Centered Environment for the acquisition of Knowledge, Skills and Competencies in Energy.

ACKNOWLEDGEMENT

The Business Plan was developed in collaboration with the Swedish Embassy in Lusaka who engaged a consultant to produce the initial draft Business Plan.

The KGRTC Board of Trustees are sincerely grateful for the funding of this undertaking.

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ABBREVIATIONS

CBU	Copperbelt University
COMESA	Common Market for Eastern and Southern Africa
DI	Defensive Interval
DRC	Democratic Republic of Congo
DSTV	Digital Satellite Television
EAC	East African Community
GDP	Gross Domestic Product
GRZ	Government of the Republic of Zambia
GWh	Giga Watt hour
ISO	International Organization for Standardization
JICA	Japan International Cooperation Agency
KGRTC	Kafue Gorge Regional Training Centre
KPMG	Klynveld Peat Marwick Goerdler
LFI	Liquid Funds Indicator
MOU	Memorandum of Understanding
NAPSA	National Pensions Scheme Authority
NGO	Non-governmental Organization
NORAD	Norwegian Agency for International Development
ROA	Return on Assets
SADC	Southern African Development Community
SAPP	Southern African Power Pool
Sida	Swedish International Development Agency
SWOT	Strengths, Weaknesses, Opportunities and Threats
TANESCO	Tanzania Electric Supply Company
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
UEB	Uganda Electricity Board
UNZA	University of Zambia
WAPP	West African Power Pool
ZAMINEX	Zambia Industrial and Mining Exposition
ZESA	Zimbabwe Electricity Supply Authority
ZESCO	Zesco Limited
ZRA	Zambia Revenue Authority

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EXECUTIVE SUMMARY

This is the Business Plan for KGRTC (*the Centre*) for the years 2013-2017. The Plan takes into account the proposed investments in the "mini-hydro power station" and other infrastructure that would impact the operations of the Centre beyond the plan period. An investment of about USD13.7 million is required to turn around the fortunes of the Centre. This is reflected in the financials showing the investment in the "mini-hydro power station", a learning Centre, simulators and development of new courses.

The 2013 – 2017 KGRTC Business Plan has therefore been developed taking into consideration a variety of views and ideas from both within and outside KGRTC.

The Centre's vision, mission and core values are:

1. **Vision**

   The vision of KGRTC is:

   "To be the Learning and Development Centre of choice in Energy Technologies"

2. **Mission**

   The mission of KGRTC is:

   "*To provide a learner-centered environment for the acquisition of skills and competencies in energy technologies".*

3. **Core Values**

   Shared values of KGRTC are many, but the core values are:

   Excellence, Integrity, Team Spirit, Learning and Innovation, Social Responsibility and Zero tolerance to corruption.

In developing the business plan, three strategic themes were considered as the main thrust of the plan with their objectives and financial commitments fully detailed in the main document as follows:

1. ***Financial Performance***

   The objective of this strategic theme is to get KGRTC to some level of financial sustainability and is a long term objective by providing quality training, increasing revenue by 5% annually and diversifying in courses. The success of KGRTC should not just be about the financial metrics and parameters. The Centre is a public good and will always enjoy some level of external support in order to fulfill its mandate. The financial sustainability is a long-term objective not achievable in the short term.

   *The budget for this objective is estimated at **KR 94 million***

2. ***Increase Training Delivery Capacity in Renewable Energy Technologies***

   The objective of this strategic theme is to develop KGRTC internal capacity and capability to deliver as per vision by developing programs in solar and wind power technology, constructing and operating of a mini hydropower station, installing of wind vanes and solar panels at KGRTC.

   *The budget for this objective is estimated at **KR 65 million.***

3. ***Institutional Sustainability***

   The objective of this strategic theme is to establish and maintain formal relations with other institutions for cooperation and accessibility develop and manage human resources for KGRTC performance and to provide cost effective logistical and administrative support services. The Centre needs to have necessary structures, mechanisms and delivery capacity to ensure its relevance. The foundation for this is available but further investments are required.

   *The estimated budget for this is **KR 62 million***

The business plan once implemented with the three themes achieved will project surpluses in the planning period. It is anticipated that the surpluses will be re-invested in providing for further upgrading of all envisaged energy technologies.

The total ***estimated budget income*** for the business plan is ***KR 156 million*** inclusive of the Zesco grant.

The total ***estimated budget expenditure*** for the business plan is ***KR 117 million***.

Key Success Indicators

The key indicators for measuring the success of this strategic plan in as far as achieving financial performance, increase in training delivery capacity in renewable energy technologies and institutional sustainability will be the following:

1. An increase of revenue by 5% annually
2. An increase of client base of 5% annually
3. Introduction of new industry driven courses and distance learning
4. Sourcing of funding and the construction of a mini hydropower station
5. Sourcing of funding and the procurement of wind vanes and solar panels
6. Sourcing of funding and construction of new guest rooms and learning centre
7. Effective management of financial resources and reduction of dependence on Zesco contributions

The above are summarized and the full details are given in the main document.

Table 1 is the Projected Income and Expenditure Account for the Business Plan 2013-2017 under normal operations without any investment and Zesco continues providing KGRTC with a grant.

Table 2 is the Projected Income and Expenditure Account for the Business Plan 2013-2017 with the investment in the mini hydropower station, learning centre, new guest rooms and new simulators and Zesco reduces its grant at 5% in 2017.

Table 1: Summarised Income and Expenditure for the Business Plan with no Investment and Zesco contribution unchanged

	Amounts Per Year (US$ 000				
	2013	**2014**	**2015**	**2016**	**2017**
Income					
Internally Generated	1,867	2,054	2,260	2,486	2,734
Zesco Contribution	2,123	2,393	2,698	2,563	2,435
Mini Hydro	0	0	0	0	0
Total Income	**3,990**	**4,447**	**4,958**	**5,528**	**6,166**
Expenses					
Total Expenses	**3,926**	**4,345**	**4,810**	**3,327**	**5,908**
Surplus/ (Deficit)	**64**	**102**	**148**	**201**	**258**

Table 2: Summarised Income and Expenditure for the Business Plan with Investment and Zesco contribution reduced by 5% in 2017

	Amounts Per Year (US$ 000)				
	2013	**2014**	**2015**	**2016**	**2017**
Income					
Internally Generated	1,867	2,054	2,260	2,486	2,734
Zesco Contribution	2,123	2,393	2,698	2,563	2,435
Mini Hydro	0	0	626	3,340	3,489
Total Income	**3,990**	**4,447**	**5,584**	**8,389**	**8,658**
Expenses					
Total Expenses	**3,926**	**4,345**	**5,088**	**6,479**	**7,106**
Surplus/ (Deficit)	**64**	**102**	**496**	**1,910**	**1,552**

Details for both the Business Plan including the intended investments are found in the chapters that follow this summary. Enclosures showing the assumptions, workings, financial positions (balance sheets) and cash flow statements, are contained in this Plan and a separate document details the Mini-hydro power station, learning centre, simulators, and course development projects.

After taking into consideration all the assumptions, it is clear that KGRTC will need support from ZESCO and other partners to be viable. The investment of US$13.7 million in a “mini-hydro power station” with supporting infrastructure of a new learning Centre and simulators will make the Centre, which is classified as a “public good” attain the objectives contained in the Plan and the African continent will reap the benefits of such a specialized training facility.

Extrapolation of the Business Plan to 2025

In order to project the financial benefits from the investments, The Business Plan is extended to 2025 and is reflected in Chapter 6.

Chapter 6 gives the full details of the assumptions and forecast of income and expenditure for the Business Plan.

Implications of Investments

The investments envisaged will bring together both disruption and stability. Disruption is in terms of all the new investments while stability is assured by the retention of the ZESCO support until such a time in the future that the Centre will have accumulated sufficient surpluses and diversification to stand on its own. The investments will ensure diversification and probable financial sustainability.

The construction of the learning centre and expansion of other facilities including classrooms will transform the Centre into ***the Centre of Choice*** by further enhancing the Centre’s image leading hopefully to repeat business. The Learning Centre’s impact is expected to be supported by marketing efforts and thus feed into the forecast participant growth.

There is a direct relationship between improved classrooms and laboratories and the expected number of course participants. This, it is felt, is as it should be. Quality facilities may bring in more users. However, numbers of participants are the result of many efforts including marketing, fee structure etc. and cannot be tied down simply to one variable. This said, we believe that the integrated learning Centre will set KGRTC apart and support both fee changes and the vision.

Further, the increased numbers of participants envisaged in the performance targets in Chapter Five and incorporated in the financials will require expanded facilities to avoid the current bottleneck of insufficient classrooms and laboratory facilities.

The investments will lead to operational surpluses for all the years forecasted. Moreover, the surpluses maintain an upward trend. The cumulative surpluses are significant indeed. It is these surpluses that will create a base for diversification into other energy technologies among others and eventually, the Centre’s financial self-sufficiency. The Plan’s assumptions are reasonable. The attainment of the outcomes is probable. For the amount of investment envisaged, this would be a good outcome.

The advantage of this Plan is that it combines avoidance of disruption with actions towards financial self sufficiency.

CHAPTER ONE

1.0 Introduction

The Business Plan for KGRTC takes 2012 as the base year and covers the years 2013 – 2017. The Business Plan seeks to chart a way forward for the Centre towards increasing self-sustainability.

The Strategic Plan for 2009-2013 has been evaluated on annual basis and achievements noted. The Plan was used in the annual budgeting process by incorporating some of the objectives.

The Business Plan for 2013 - 2017 therefore overlaps the Strategic Plan for 2009 - 2013. The Business Plan is premised on analysis of the operating environment in its key markets, the products on offer, major assumptions for the next five years and financial projections.

In order to build on its past achievements and to further enhance its business performance, the Centre developed a Strategic Plan for 2006 - 2010 in 2005 whose major centre-piece was obtaining a one-off US$3 million grant from ZESCO instead of the monthly contributions enshrined in the memorandum of understanding (MOU). The Strategic Plan also assumed the execution by ZESCO of a Deed of Gift to transfer land and buildings to the Trust would have enabled the Centre to access funds from banks and other financial institutions. Probably this may not have been the best option for the Centre. It was fraught with course fee increases that would hurt most utilities and other countries with low ability to pay.

This Business Plan for KGRTC is therefore meant to build on the achievements of the past and current strategic plans and to enhance financial sustainability in light of the changes in the business environment in which KGRTC is operating. It is important to note that the Strategic Plan (2009 – 2013) was to come to an end in 2013 and is due for review and further elaboration. There is a one-year overlap between the Strategic Plan (2009 – 2013) and current Business Plan (2013 – 2017). The two plans have been harmonized with 2012 being the base year for the purposes of harmonization. In terms of financial projections, actual figures from the year 2011 were utilized.

The Business Plan for KGRTC covers the following:

1.1 Vision Statement

The vision statement, providing a clear picture of where KGRTC intends to be where it is currently not, has been outlined. It is intended to give KGRTC the necessary motivation to achieve excellence in fulfilling its mission.

1.2 Mission Statement

The mission statement, justifying the fundamental purpose for the existence of KGRTC in the next five years is presented. It provides a framework within which strategic decisions will be made and programs and activities will be undertaken.

1.3 Core Values

The Core Values projecting strategically what KGRTC considers being highest priorities and beliefs on how KGRTC conducts its business and work and are defined in line with the mission and vision.

1.4 Situation Analysis: SWOT Analysis

The strengths and opportunities, which are internal and external factors that provide KGRTC with a conducive environment to perform well, are outlined in Chapter Four. In addition, the weaknesses and threats, which are internal and external factors that constrained its ability to perform, are also outlined in Chapter Four. Collectively, these factors constitute KGRTC's operating environment.

CHAPTER TWO

2.0 Brief History and Mandate

2.1 Brief History

Kafue Gorge Regional Training Centre ("KGRTC" or "the Centre") was established and registered as a Trust in 1989 with the core business being Hydropower Training and Conferences. The Zambia Electricity Supply Corporation (ZESCO), NORAD and Sida funded the Centre as a project.

2.2 Objectives of the Centre

The Centre was established with the following objectives:

- Provide hydropower training to course participants from utilities in the Central and Southern African region;
- Facilitate conferences and seminars;
- Provide accommodation to course participants and conferences and seminar participants.

2.3 Key Partners and Institutions

2.3.1 NORAD and Sida

The Centre has been receiving assistance from the Royal Norwegian Government and the Royal Swedish Government through NORAD and Sida respectively since the inception of the project. NORAD and Sida funded the capital equipment and rehabilitation of the facilities at the Centre. The two organizations also offered scholarships to a number of course participants from the utilities from the region.

This support was given in four phases as follows:

a) Phase 1 which was between 1989 and 1992

b) Phase 2 which was between 1992 and 1995

c) Interim consolidation phase which was between 1996 and 1997; and

d) Phase 3 which was between 1997 and 2000

Phase 3 can be considered critical because it was during this period that the Centre achieved the following:

a) Autonomy with its own Board of Trustees and Management

b) ISO 9001 certification

c) High standard facilities

d) Development of demand-driven technical courses

e) Installation of training Simulators – making KGRTC the only Centre in SADC with simulation facility

f) Availability of qualified staff

2.3.2 ZESCO

ZESCO is a key institution that established the Centre as part of its staff training needs. Subsequently ZESCO ceded the Centre to the SADC region with autonomy for self management through a Board of Trustees. ZESCO however, maintains keen interest in the development of the Centre. In terms of ownership ZESCO can be considered as a key stakeholder as it foots close to 50 percent of the Centre budget through facility use and staff emoluments. ZESCO is committed to KGRTC in the long term. This commitment is important as it assures of institutional stability and sustainability.

2.4 Enabling Instruments

2.4.1 Country Agreement

The Government of the Republic of Zambia and the Governments of the Royal Kingdoms of Norway and Sweden entered into an agreement on 11 July 1997. This set forth the terms under which Norway and Sweden were to render financial assistance to the Centre during the period 1997 and 1999. The purpose of the project was to increase the efficiency, competence and capacity of KGRTC as a regional body. The total project cost amounted to US$ 5, 833, 846 financed by Norway, Sweden, and contribution from tuition fees, conferences and income from seminars, ZESCO and SADC utilities.

2.4.2 Memorandum of Understanding with ZESCO

A Memorandum of Understanding (MoU) was signed on 12 September 1997 between ZESCO Limited and KGRTC. This MoU provides for the following:

a) That the Centre be delinked from ZESCO and be handed over to the Board of Trustees

b) That the management of the Centre be vested in the Board of Trustees

c) That the Director shall be accountable to the Board and not to ZESCO

d) That the person for the time being, being the Director of Human Resources of ZESCO be the chairperson of the board

e) Income generated by the Centre shall remain with the Centre and be controlled by the Centre management in cooperation with the board

f) The Centre may establish its own terms and conditions of service in order to attract high caliber personnel thereby maintaining a high international standard as a Regional Training Centre; and

g) The Centre may supply and discharge such staff as it shall deem fit

ZESCO as a host utility company would continue to support the Centre in the same functions and operations as before for the period up to twelve months after giving notice of withdrawing support. This shall include but would not be limited to:

a) Secondment of staff to the Centre

b) Free use of the campus area

c) Free use of the electricity and water

d) Free use of the power house for practical training

e) Provision of staff accommodation and

f) Provision of transport and fuel

2.4.3 Trust Deed

ZESCO Limited entered into an agreement to form a Trust with the following:

a) J D Sakala, ZESCO – Director of Human Resources, Zambia

b) Z J Nkomo – ZESA – Corporate Services Director, Zimbabwe

c) M C Magege, TANESCO – Director of Human Resources, Tanzania

d) S A Mupanga – Director, Department of Science, Ministry of Science, Technology and Vocational Training, Zambia

e) F X Mubuuke, UEB – Chief Personnel Manager, Uganda

f) J M Mwenechanya – Deputy Vice Chancellor, University of Zambia and

g) W Serenje – Director, Ministry of Energy, Zambia.

The above individuals constituted the Board of Trustees of the Trust that was set up. The trust deed, among other issues addresses the following:

a) Mission of the Trust

b) Objects of the Trust

c) Power to levy fees

d) Borrowing powers of the Trustees

e) General powers of the Trustees

f) Proceedings of the trustees

g) Appointment of the Director of the Centre

h) Powers of the Director

i) Appointment of the Secretary of the Board of Trustees

j) Appointment of Auditors

k) Power to appoint a sub-committee to deliberate on matters concerning administration of the Trust.

l) Liability of Trustees

In general, the Trust Deed provides the rules and regulations on how the KGRTC is to be managed.

2.4.4 ISO 9001 Certification

The Centre is ISO 9001 certified and has maintained this certification since 2000.

2.5 KGRTC Customers

The KGRTC customers can be divided into two broad segments on basis of product lines. A segment in a market is recognised due to certain homogenous and uniquely similar characteristics. The centre has two major product lines: training and conferencing. Each event product relies on accommodation and catering provided at the Centre.

Table 3: KGRTC Customers

Training	Conferences	Potential
Electricity / Power utilities and subsidiaries	Government ministries and departments	Independent power producers and subsidiaries
Water utilities	Donors	Renewable energy stakeholders
Rural electricity regulators	Banks	Alternative energy industries
Energy regulators	Local and foreign universities and colleges	
Mines	Government owned and private companies	
Insurance companies	International organizations	
Sugar processing companies	Non-governmental organizations	

2.6 Stakeholders

The KGRTC Key stakeholders have different influences on the existence and operations of the institution.

The table below shows the identified key stakeholders.

Table 4: KGRTC Key Stakeholders

Key Stakeholders	Key Stakeholders	Key Stakeholders
Board of Trustees	Workers Compensation	Community
Zesco Limited	NAPSA – Pension Fund	Power Utilities in the region
Course Participants	Tourism Board	Regional Economic Communities
KGRTC Employees	Registrar of Societies	Ministries of Energy in the region
Customers	TEVETA	
Suppliers	Local Authorities	
Government of the Republic of Zambia	Donors	

The Stakeholder map below presents a picture of virtually all stakeholders having a lot of influence over the Centre whereas the Centre has little influence over those stakeholders. This situation while not altogether be abnormal nevertheless requires a close and careful management of the current relationships.

The top priority is reserved for groups with highest influence who are also highly impacted by the Centre. This relationship is characterised by individuals and organizations that are directly impacted by services of the Centre. Customers and course participants fall under this category due to their primary role in the business while ZESCO and the Trustees play the role of owners and oversight.

These relationships are carefully nurtured and monitored for any changes. The same goes for the secondary priority stakeholders. They are monitored for any changes in influence.

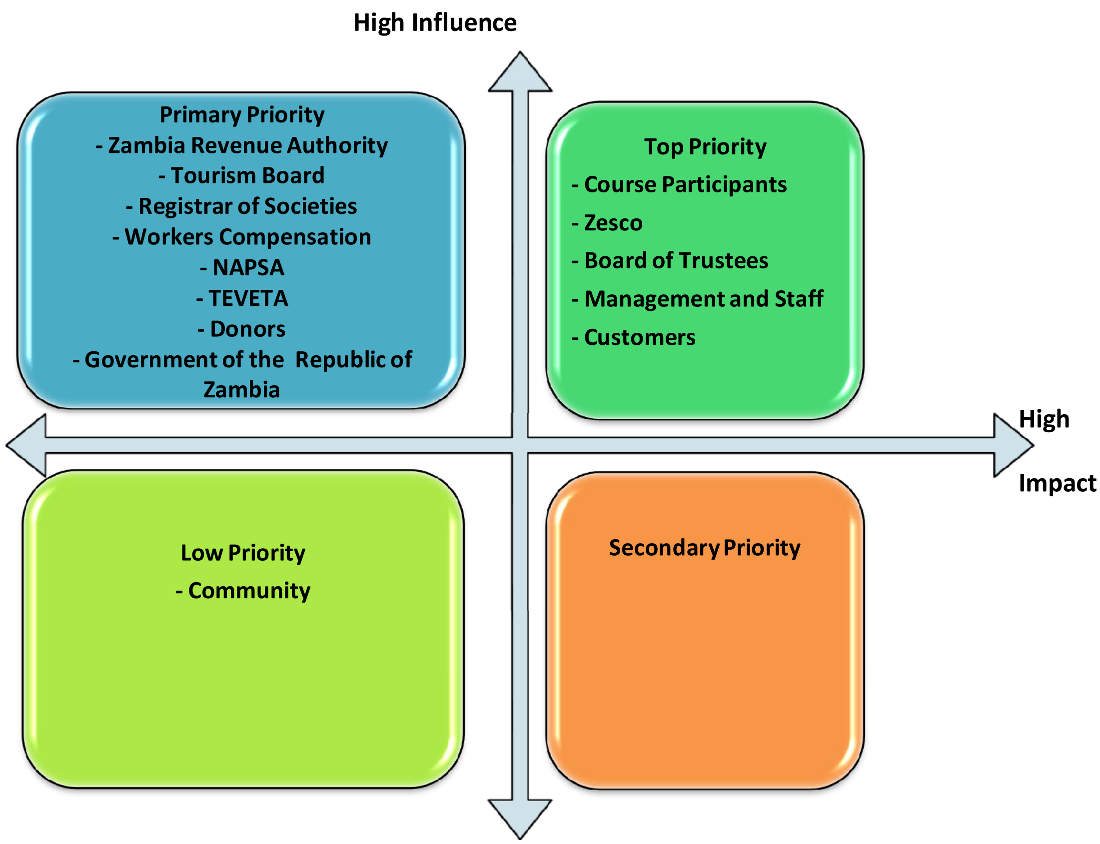


Figure 1: Stake Holder Map

2.7 Services offered

2.7.1 Training

The Centre offers training in the following five (5) core focus areas:

a) Power Systems Operations and Management courses;
b) Engineering Operations and Maintenance courses;
c) Engineering Applications and Management courses;
d) Safety, Health, Environment and Quality Assurance courses;
e) Corporate Governance, Management and Leadership Development courses.

The scheduled training programmes range in duration from two weeks to thirteen weeks and are conducted on a residential basis. All the courses are certified at skills award level for competency under the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) in Zambia.

Appendix II details the Courses offered and country participation.

The Centre has the capacity and flexibility to offer training programmes and to conduct tailor-made training interventions that cost effectively meets the specific needs of individual organizations.

The Centre has the capacity to conduct training off-site to meet the client’s needs.

2.7.2 Conference and seminar facilities

The Centre has also earned itself an international reputation in provision of excellent accommodation and conference facilities. The following facilities are offered;

a) Africa Conference Hall

A spacious, air conditioned Conference Hall, which sits a maximum of 100 delegates. It is equipped with a big screen television , white board, VCR, public address system, LCD projector and flip chart stand.

b) Kilimanjaro Board Room

An immaculate air-conditioned venue, which sits a maximum of 18 delegates. It is equipped with white board, television, VCR and flip chart stand, and LCD projector are provided on request.

c) Lecture Rooms

There are two lecture rooms and a computer based training classroom. The sitting arrangement can be set according to delegates' needs. They have similar facilities as the Kilimanjaro Boardroom.

2.7.3 Accommodation Facilities

Kafue Gorge Regional Training Centre has seventy seven (77) well furnished rooms with comfortable study areas to cater for delegates and course Participants coming for conferences and Training. The following types of accommodation are on offer;

a) Muela, Kiira and Cahora Bassa (7) Executive Rooms

Each flat is self-contained and fully furnished with a double bed DSTV, fridge and air-conditioned.

b) Kafue Flats (Executive Rooms)

Each flat is self-contained with a double bed and a separate furnished lounge with DSTV, fridge and is air conditioned.

c) Drakensberg (10 Standard Rooms)

Each flat has double bed, en-suite bathroom, DSTV, study area, Fridge and is air-conditioned.

d) Cahora Bassa (9 Standard Rooms)

Each flat comprises two three quarter beds, DSTV, study area, Fridge and en-suite bathroom and is air-conditioned.

e) Kiira, Nkula, Ruacana and Muela (26 Standard Rooms)

Each flat comprises of a three quarter bed, DSTV, study area, en-suite bathroom and is air-conditioned.

f) Ezulwini and Kidatu (20 Standard Rooms)

Each recently refurbished flat comprises of three quarter bed, en-suite bathroom, study area, DSTV and is air-conditioned.

2.7.4 Catering facilities

The Centre has two modern restaurants Lule and Nidelva, which offer a variety of menus at reasonable rates.

2.7.5 Other Facilities

a) Oasis Mingling Area

The Oasis mingling area is well stocked with a wide variety of beverages. Guests are free to access the area. They can enjoy DSTV entertainment. In addition, fast food take away services are available.

b) Internet Café

The Centre has an internet café open to delegates and offers free wireless services for all in-house delegates.

c) Gymnasium

KGRTC has a modern gymnasium for clients who want to keep fit.

CHAPTER THREE

3.0 PERFORMANCE

3.1 Corporate Governance and Management

3.1.1 Corporate Governance

The Centre is governed by a Board of Trustees with representation from Zambia, as the host country, Malawi, Swaziland, Uganda, Tanzania and Zimbabwe. Zambia is represented on the Board by ZESCO, the Ministry of Mines, Energy and Water Development, the Ministry of Education, Science, Vocational Training and Early Education and the University of Zambia. Malawi is represented through the Electricity Supply Corporation of Malawi Ltd (ESCOM), Swaziland through the Swaziland Electricity Company (SEC), Uganda through the Uganda Electricity Transmission Company Ltd (UETCL), Tanzania by the Tanzania Electric Supply Company (TANESCO) and Zimbabwe by Zimbabwe Electricity Supply Authority (ZESA).

The Director Human Resource and Administration at ZESCO presides as the Chairperson of the Board.

The Board of Trustees operates through three (3) Committees, the Finance and Administration Committee, the Audit and Risk Management Committee and the Technical Committee. The Board holds its meetings once every quarter.

KGRTC finances are audited at the end of each financial year by an auditor appointed by the Board of Trustees. In addition internal audit services are now provided by the full time KGRTC Internal Auditor as previously provided on ad-hoc basis by Zesco.

SGS of South Africa conducts the annual surveillance audits under the quality management system. Internal quality management system audits are conducted twice a year by trained KGRTC employees.

All KGRTC assets are covered by insurance. The insurance covers various risks for both life and non life.

3.1.2 Key Management Staff

The Centre has highly skilled and qualified management staff to manage the business. The staff have been with the Centre for a duration that makes them knowledgeable about the business. There is a good mix of skills ranging from Registered Engineers, Business Administrator, Economist and a qualified Chartered Accountant. The management structure is both lean and fit to effectively manage without unnecessary expensive tall bureaucracy.

3.1.3 Business Plan 2001 – 2003

From the year 2001, with continued financial contributions from ZESCO Limited, KGRTC managed to achieve the following:

a) Operated as a semi-autonomous Centre with its own Management and Board of Trustees;

b) Provided quality conferencing, accommodation, and catering facilities in addition to the core business of training;

c) ISO 9001 certification (Quality Management System);

d) Received international awards;

e) Insured all assets including human resources against major insurable risks;

f) Developed demand driven non-traditional technical and management courses;

g) Maintained, rehabilitated, and refurbished existing facilities and buildings;

h) Successfully implemented the SADC Industrial Energy Management Project (SIEMP);

i) Installed telephones, air conditioners, DSTV, new computers, etc., in guest rooms and offices;

j) Codified KGRTC own conditions of service, disciplinary code, transport policy, and other administrative procedures;

k) Maintained cordial industrial relations;

l) Recruited, retained, developed, and motivated a well-qualified staff;

m) Increased yearly financial performance;

n) Successfully negotiated and implemented a scholarship for female course participants with Sida.

3.1.4 Strategic Plan for 2006-2010

The main assumptions of the 2006-2010 Strategic plan which was not completed that focused on attainment of self-sustainability were:

a) Revision of the MOU between the Trust and ZESCO Limited,

b) Execution of a Deed of Gift by ZESCO Limited to transfer property to the Trust,

c) Replacement of the monthly ZESCO Limited contributions enshrined in the current MOU by a one-off grant of US$3 million,

d) Revision of marketing plans and strategies and collection of all long outstanding debts, especially from ZESCO Limited,

e) Construction of an auditorium, refurbishment of guest rooms, and acquisition of modern equipment, retention of key personnel through attractive conditions of service,

f) Charging of economic and competitive fees for services in order to gain sustainable returns on investment.

Although the Plan was considered and approved in principle, its implementation was deferred on account of the non occurrence of the major assumptions. Management of the Centre however, through its budgeting process, implemented some of the ideas in the Plan and recorded a number of successes.

3.1.5 Strategic Plan for 2009 – 2013

The 2009 – 2013 Strategic Plan for KGRTC was therefore meant to build on the achievements of 2006 to 2008 of the 2006-2010 Strategic Plan and to further customer satisfaction in light of the changes in the planning environment in which the Centre is operating.

In addition, the revised and rolled-over Strategic Plan for 2009-2013 came from a much stronger desire for the Centre to attain some level of self-sustainability by and by responding to what it recognised as future opportunities and challenges.

The 2009-2013 Strategic Plan was drawn up on the basis of the following assumptions:

- That the Zesco MOU will not be adversely revised during the plan period;
- That the marketing plan and strategies would continuously be revised, approved and implemented to meet new market demands;
- That the construction and refurbishment of auditorium and guestrooms would be completed in the planned periods;
- That the planned participation in training and other facility usage would be realised;
- That all envisaged and planned incomes will be collected in time to enable KGRTC meet its financial obligations;
- That the local and regional economic environment will not drastically change to the detriment of KGRTC’s operations;
- That KGRTC will continue to have access to other Zesco facilities, apart from Kafue Gorge Power Station, for practical training;
- That affordable fees and economic value added programmes and facilities will stimulate demand resulting in higher capacity utilisation;
- That sponsorship of course participants by the utilities, especially the host utility Zesco Limited, will continue;
- That state-of-the-art training and conference equipment will be acquired through internally generated resources and donor funding;
- That political stability in the region will continue.

3.2 Operational Performance

Under this section, an analysis of the past and current activity levels was done. Over the period the Centre has recorded growth in participant numbers and revenue. Below the detailed current and forecast activity levels in terms of training courses and service offerings is presented.

3.2.1 Training Courses

Between 1991 and 2011 a total of 20 countries have participated on KGRTC training programmes with a cumulative record of more than 2500 course participants.

Zambia has sent the most students to the Centre for training making up 56% of the total. This comprises participation from ZESCO, National Electricity Utilities, Independent Power Producers, Water Utilities, Mining and Sugar Companies. This is followed by Tanzania with 9%.

Participation by other organizations in the region account for 35%, which is rather low considering the Centre, is the only one of its kind in the region. This calls for a more robust marketing approach.

Historically, for the years 2007-2011, the split in student numbers by country for the last 5 years are as follows:

Table 5: Participation by Country

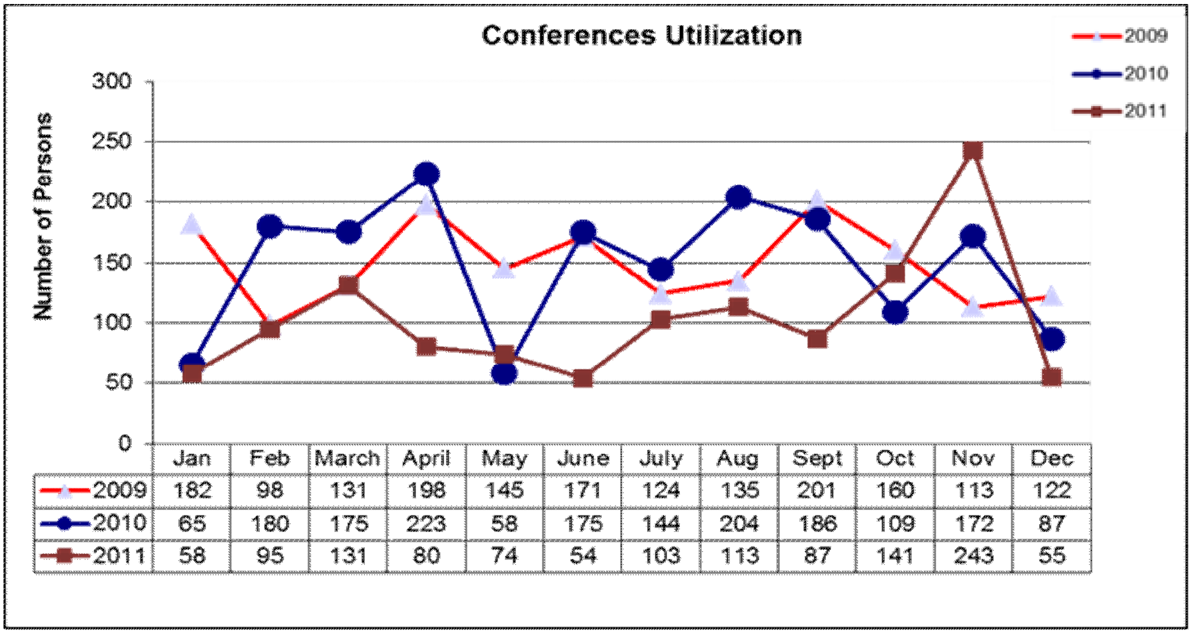
S/N	Country	Number of Course Participants	Percentage
1.	ANGOLA	2	0.1
2.	BOTSWANA	11	0.7
3.	CONGO DR	2	0.1
4.	ETHIOPIA	1	0.1
5.	GHANA	7	0.4
6.	KENYA	27	1.7
7.	LESOTHO	0	0.0
8.	MALAWI	89	5.7
9.	MAURITIUS	0	0.0
10.	MOZAMBIQUE	134	8.6
11.	NAMIBIA	15	1.0
12.	NIGERIA	5	0.3
13.	RWANDA	93	6.0
14.	SOUTH AFRICA	1	0.1
15.	SUDAN	13	0.8
16.	SWAZILAND	28	1.8
17.	TANZANIA	141	9.0
18.	UGANDA	100	6.4
19.	ZAMBIA	873	56.0
20.	ZIMBABWE	17	1.1
Total		**1559**	**100.0**

Table 6: Participation by Region

S/N	**Region**	**Number of Course Participants**	**Percentage**
1.	**North**	**13**	**0.8**
2.	**West**	**12**	**0.7**
3.	**East**	**362**	**23**
4.	**South**	**1172**	**75**

3.2.2 Conference Utilization

Over the last three years utilization trends of the conference facility has had mixed results but this is largely positive. There is big potential for meetings and conferences on energy in Africa.



Graph 1: Conference Utilization 2009 - 2011

3.2.3 Financial Performance: 2008 – 2011

Table 7 below shows performance for the period 2008 to 2011 in US dollars. Though the performance was fluctuating, nevertheless the trend was overall, positive.

Table 7: Financial Performance 2008 - 2011				
YEAR NO.	**2008**	**2009**	**2010**	**2011**
PARTICULARS	**ACTUALS**			
	US$	**US$**	**US$**	**US$**
Other Donor Funding	39,568	244,243	231,717	514,105
ZESCO Contribution	1,408,808	1,643,087	1,501,608	2,497,652
Internally Generated	1,648,780	1,805,346	1,672,123	1,613,197
Total Income	**3,097,156**	**3,692,676**	**3,405,448**	**4,624,954**
Personnel	1,585,869	2,118,478	2,284,437	2,479,718
Direct Operational	326,796	421,589	471,405	584,417
Administrative	761,479	1,029,349	1,107,063	1,225,483
Marketing	136,070	249,082	240,542	172,507
Transport	348,715	294,913	276,695	300,891
Finance	14,518	96,786	17,649	15,941
Total Payments	**3,173,446**	**4,210,197**	**4,397,791**	**4,778,958**
Income TAX	0	0	1423	1139
Surplus/(Deficit)	**-76,290**	**-517,521**	**-993,766**	**-155,142**
No.of Course Participants	217	287	226	189

CHAPTER FOUR

4.0 Macro and Micro Environmental Analysis

4.1 Macro Economic Environment Analysis

Currently Sub-Saharan Africa, which consists of 49 countries (population of 826 million), has a generation capacity of 68 GW. This is equivalent to the generation capacity of Spain (population of 40.5 million). Without South Africa, which has an installed capacity of about 40 GW, this figure falls to only 28 GW. Typically, generation capacity should grow at about the same rate as the economy to keep pace with demand. However, this assumes that generation capacity is equal to demand or close to it and this has not been the case. Due to the low level of generation the electrification of most countries is less than 20%. (Scott, KPMG report).

The population of Africa is expected to grow to 1.5 and 2 billion by 2030 and 2050 respectively. This will be a key driver of electricity consumption. Most Sub-Saharan African countries have an electrification level of under 30%. Only South Africa has about 70 percent electrification level. This means that the potential for capacity building and specifically specialised training will be enormous in the medium to long term. This is an indication that KGRTC is in a growth industry.

While the sub Saharan Africa countries are different in their political and regulatory development, the following objectives are common:

- Increased and sustainable security of supply of electricity;
- Enabling economic growth;
- Building investor confidence;
- Being environmentally responsible.

4.1.1 Enabling economic growth

Most countries in the Sub-Saharan region had experienced double-digit GDP growth prior to the worldwide recession of 2009. It is expected that the industrial output will soon reach the levels from before the global recession and growth will continue. The countries could possibly offer many advantages to industrial users such as low cost of labour, low land cost, and low cost of energy. While the first two advantages remain valid the low cost of energy has changed over the past years. Tariffs are increasing because the low tariffs can no longer support investment in new generation or the replacement of ageing existing generators. The other key factor for high tariffs is that diesel fired backup/emergency generators produce electricity at too high cost. For Governments seeking sustainable growth and investment, a secure and competitively priced supply of electricity is a pre-requisite.

4.1.2 Being environmentally responsible

Another common goal of all the Sub-Saharan countries is the increasing use of low carbon emission generation sources. Africa as a whole could hypothetically supply enough electricity to the whole world with renewable energy. Its geographic characteristics offer massive potential for the generation of electricity from hydro, solar and wind resources. Not only could these solutions offer a long-term sustainable solution, but also it may be affordable in the long term. Countries are therefore actively looking to promote renewable and other resources for power generation. This includes also the construction of nuclear power plants and natural gas fired power plants.

This means that investments in all forms of energy in countries with the potential will be encouraged, further justifying the case of a revamped KGRTC.

4.1.3 Economic, Demographic and Electrification Data

The report on countries referenced have been reported by the infrastructure consortium for Africa (ICA)[1] on regional power pool status in Africa and the International renewable energy agency (IRENA)[2]. There are primarily five power pools acting as specialized agencies of their respective RECs: (i) the Central Africa Power Pool (CAPP) for the Economic Commission for Central Africa States (ECCAS), (ii) the Comité Maghrébin de l'Electricité (COMELEC) for the Union of Maghreb Arab (UMA), (iii) the Eastern Africa Power Pool (EAPP) for COMESA, (iv) the Southern Africa Power Pool (SAPP) for SADC, and (v) the West Africa Power Pool (WAPP) for ECOWAS.

Installed capacity is 6073 MW for CAPP (2009), 27 347 MW for COMELEC (2009), 28 374 MW for EAPP (2008), 49 877 MW for SAPP (2010) and 14 091 MW for WAPP (2010). The installed capacity per thousand habitants is the highest in North and South Africa in terms of kW per thousand habitants: COMELEC (319), SAPP (311), followed by EAPP (74), WAPP (54) and CAPP (49).

As far as electricity mix is concerned, at Africa level, most of the existing capacity is thermal (75%) due to the size of the COMELEC and SAPP systems, which are predominately thermal. Hydropower is predominant in CAPP (86%). In EAPP and in WAPP, the present share of hydro is 24% and 30%, respectively, but this share is expected to grow rapidly as ongoing and future generation investments are mainly in hydropower projects (e.g. Ethiopia: Gibe III with 1870 MW).

Access to electricity is still very low: 31% of the countries have an electrification rate below or equal to 10%. Nearly 70% have an electrification rate below or equal to 30%.

The electricity consumption per capita is still very low: 54% of the countries have an average consumption.

As far as power trade is concerned (mainly within power pools), electricity traded is still low for CAPP (0.2% in 2009) and in EAPP (0.4% in 2008). It is relatively higher respectively in COMELEC (6.2% in 2009), in SAPP (7.5% in 2010) and in WAPP (6.9% in 2010). SAPP is at a more advanced stage with 28 bilateral contracts already signed between the member countries and with an active role played by the Short Term Electricity Market (STEM) since 2001 and by the Day Ahead Market (DAM) since 2009.

Further development of the regional market is however constrained by the lack of generation capacity linked with congested and insufficient interconnections capacity.

Institutional set up and market rules and regulations have already been implemented in SAPP, are being implemented in WAPP and under design in EAPP. However, CAPP and COMELEC have still to design and develop their power market institutions and rules.

As for regional projects, all power pools are experiencing concrete achievement in implementing interconnection projects. Up-to-date regional master plans are available for all power pools. Except for COMELEC, the four other power pools have formally adopted their priority projects at the regional level and are mobilizing funding.

For interconnection projects, some solutions are already initiated: as these projects are benefiting to various countries, their funding could be developed through specific vehicle project (SVP) where the concerned utilities/players could contribute to the assets, provided that proper wheeling charges are agreed upon. This solution is already considered in SAPP for ZIZABONA interconnection project (Zimbabwe-Zambia-Botswana-Namibia).

Some of the positive impact, which is expected to result from the development of the Regional Power Pools, includes the resulting economies of scale, the increased system reliability and security of supply, and diversification of power generation mix. These pools will help integrate the region further meaning that KGRTC services will be having a ready demand. There is therefore a compelling case that the macro environment from social and economic aspects is positive.

[1] ICA 2011 (http://www.icafrica.org)
[2] IRENA 2011 (http://www.irena.org)

Currently, Southern Africa Development Community (SADC), East African Community (EAC) and Common Market for Eastern and Southern Africa (COMESA) are involved in tripartite talks that could lead to integration of about 26 countries. This will have a big economic impact on a region with about half of Africa's population and number of countries. This will spur investments in energy and help boost economic growth leading to further demand for KGRTC services. The regional integration will loosen negative regulatory regimes and having common training schools for specialised services will be fashionable instead of small and underfunded national power training schools.

4.2 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

A number of factors provided KGRTC with conducive environment to perform well, while others limited its ability to deliver quality services. Using SWOT Analysis, the following factors were identified as some having influenced the performance of the Centre and may continue to do so during the implementation of the business Plan.

Table 8: KGRTC SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
❖ Government recognition as a result of accreditation to TEVETA ❖ Attainment and retention of ISO 9001 certification ❖ Strategic location in the region ❖ Good collaborations with other training institutions and utilities ❖ Track record of good industrial relations ❖ Adequately qualified personnel to deliver quality services ❖ Membership to international bodies such as ICH and IHA ❖ Secretariat of the Africa Hydro Symposium	❖ Limited Seminar/workshop venues ❖ Inadequate guest accommodation ❖ Lack of suitable staff accommodation ❖ Under utilization of KGRTC facilities such as simulators ❖ Dependency on Zesco for emoluments	❖ Introduction of new courses to replace those in decline stages ❖ Good partnerships and accreditation to institutions such as ICH, SBB of Canada, UNZA, CBU ❖ Vibrant local and regional economies in non electricity sectors ❖ Electricity supply industry restructuring ❖ Alternative energy sources such as solar, thermal, wind and bio-mass ❖ Vibrant local market especially in the mining sector	❖ Possible withdrawal of the MOU between KGRTC and Zesco ❖ Weak institutional demand both locally and international ❖ General inflation rise due to food and oil prices ❖ Economic instability in all countries ❖ Persistent droughts, famine, floods and other natural disasters

4.3 Market Analysis

The KGRTC covers the sub-Saharan Africa region. The potential market area consists of 30 African countries, but the current actual participation is 20 countries. This shows there is still scope for growth in geographical spread. The participant numbers from participating countries represent a smaller market share than existing demand. There is business potential to undertake further market penetration in current market. Outside South Africa and Egypt, KGRTC has weak competitors. The Centre has more than 50 percent of the market.

Table 9: Participation by Region

S/N	Region	Number of Course Participants	Percentage
1.	North	13	0.8
2.	West	12	0.7
3.	East	362	23
4.	South	1172	75

4.3.1 Market Characteristics

The participants in the KGRTC service area come from power utilities, water utilities, Government Ministries, sugar and mining companies. Many countries have national power training Centres. However, these tend to be fashioned as departments and are poorly equipped. In Zambia, KGRTC has a near monopoly position and commands nearly 90% of the market share. ZESCO has been a promoter and supporter of KGRTC. The Centre has now a strong foothold in the mining and energy sectors in Zambia. The reputation and credibility of the Centre is high in its customer segments.

In East Africa, Uganda, Rwanda, Burundi and Tanzania are the most promising markets. Participation on KGRTC courses from Tanzania and Uganda has historically been consistent and high. Rwanda and Burundi are new markets with good growth potential in the medium term. Kenya has not been a consistent customer as they utilize their own training facility and also train in Europe. In the short to medium term, East Africa is a market with good business prospects. South Sudan is our new market in this region with good growth prospects. There is an opportunity to train staff at both technician and Engineering level. The need for capacity building is great and KGRTC will do its fair share of building this country's capacity.

Ethiopia has not been utilising the training facilities and an appraisal of that market needs to be carried out. This is a market constructing big capacity hydropower stations and the need for training is therefore real. The hydropower human capacity needs in this market are worth to invest additional marketing efforts. In the short to medium term KGRTC will target to train 30 percent in specialized courses.

In Southern Africa, Mozambique has a big capacity in hydropower generation. Consequently; the need for training has been growing. So far KGRTC has trained up to 181 participants in the last 20 years; this is still a growth market. KGRTC plans to invest more in Portuguese language tools to maintain this market. Growth prospects in this market remain positive in both medium and long term. New marketing strategies towards tailor made and in country training with practical sessions on campus at KGRTC will be explored.

Swaziland is projected to continue sending participants to KGRTC in the medium term. In the last 10 years, KGRTC has trained 121 participants. This trend is projected to continue but with more in country level participation. In the short to medium term, KGRTC will carefully calibrate product offerings to maintain this market. The nearness of Swaziland to South Africa means they have an option and potential for defection. KGRTC has had a deep and historical business relationship that we intend to keep and strengthen.

Lesotho has patronized courses at KGRTC in the past. There is minimal growth potential in future due to reliance and integration with South Africa. KGRTC will continue to market its offering with an objective to gain 30 percent market share in the medium to long term.

Zimbabwe has been having internal power generation challenges in the recent past. In the medium term a strong recovery is expected in the energy sector. This will increase participation in our courses in tandem with the sector growth. The energy sector has to grow to service a rapidly growing mining sector. Our market growth potential remains positive in the medium to long term. This however is subject to a favourable political climate and relationship between Zambia and Zimbabwe.

Botswana was consistent in participation in our courses in 1990s. This dried up till recently in 2008 when participation has started to pick up. In the medium term, we project numbers to increase but in the long term, the establishment of national training Centre will make participation to plateau or drop. KGRTC marketing strategy is to market the high level specialized courses that a new school will not have the capacity to conduct.

Angola participated in KGRTC courses in the 1990s but numbers dried up largely as a result of challenges related to language of instruction. Angola is Portuguese-speaking country. Prospects and projections for the future indicate that the level of participation on training activities is likely to pick up.

The DR Congo holds the biggest hydropower potential in Africa. This market has largely remained untapped due to several challenges, mostly related with language and internal strife. The future projections for this market in the medium to long term remain optimistic. KGRTC will increase its visibility in the market and tailor country specific interventions. In the next 20 years all things being equal the energy potential in hydropower will have been realized and KGRTC has the capacity to benefit from this growth. This will be done through the training in Rwanda and close business relationship with DR Congo energy sector officials.

Malawi is a country with high training potential in the energy sector. Based on this markets history and affinity to KGRTC, our projections for the medium term remain highly positive. Since 1991, we have trained 175 participants from Malawi, making it one of our biggest markets. We remain optimistic of better prospectus in this market with a mix of in country interventions. Recently we have penetrated the water utilities, opening new growth prospects.

Mauritius is projected to remain a dormant market in both medium to long term. Efforts are underway to market KGRTC to the utilities and attract participation.

Namibia has not been a big market for our courses in the last ten years. The market dynamics make its potential to be rated as low. This rating is both in the short to medium term. In the long term as the potential for the southern Africa Power Pool is fully realized, our fortunes will likely start looking up. The economic integration of this market to South Africa is quite deep and any growth in training is likely to benefit South Africa training facilities at Eskom. However, the prospects indicate that potential for training in hydropower power remains very high. South Africa has largely been a dormant market in the past. However, current indications are such that there is demand for training on KGRTC courses both from Eskom and the Municipalities in specialised hydropower and emergency restoration systems towers.

West Africa is home to some of biggest Hydropower stations in Africa. The regions market potential has not been fully realized and so far only Ghana and Nigeria participate in our courses. Through the West Africa Power Pool (WAPP) growth prospects will spike largely based on energy needs of Nigeria and rapidly growing mining sector in West Africa.

Nigeria has had severe constraints in the past, largely due to weak capacity for generation, transmission and distribution. The energy sector has been under funded in the past. The power holding company of Nigeria has been actively in involved in capacity building in the last five years mostly through donor funding. A new and unexpected market segment has emerged. The Nigerian Government has committed to build skills of the Niger Delta ex combatants. Towards this end, KGRTC has been approached to explore opportunity to train 200 participants on basic skills in hydropower generation. If this training comes to fruition, it would have opened doors to new horizons in our product offering. Business growth prospects remain positive in the short to medium term. In the long term our strategy is to build on strategic alliances with the power holding company of Nigeria to continue to produce highly specialized skills training.

Ghana has started producing oil and this will likely alter energy generation and consumption patterns in the country. KGRTC has trained 11 participants from Ghana in the last seven years. As the energy sector grows, skills training will need to be upgraded to service the emerging needs and new capacity. Our growth prospects in this market in both short and medium term remain positive with an objective to achieve 30 percent market penetration in the highly specialized skills courses.

The global participant numbers show an upward trend. This could be attributed to continued relevance of the course offerings. Over the period the centre has also developed a new Portfolio of offerings that are demand driven. These factors are responsible for driving the performance. The future is always difficult to predict but as shown in the section on Market analysis, the business outlook remains largely positive. The Zambian economy in projected to maintain its growth trajectory. This growth will be partly fuelled by new mining ventures and expansion of competent staff will fuel growth of the training in engineering and related fields.

The future will be dominated by clean energy or renewable energy technologies. Hydro electricity fits in this category but newer technologies such as Wind and Solar energy will also become more widespread. Wind and Solar energy provide countries in the region with new alternatives. These technologies will drive the green economy of the 21st century and beyond. The Centre will therefore position itself to build capacity for the future. KGRTC should be a market leader. To effectively carry out this mandate, the centre has to be both a technology and knowledge leader.

KGRTC will collaborate extensively with institutions that promote development and integration of the African power industry through exchanges of experiences and know how. The Union of Producers, Distributors and Transporters of Electricity in Africa (UPDEA), now APUA (Association of Power Utilities in Africa) is one such institution which KGRTC has associated with since inception. KGRTC will place itself as a Centre of Excellence to fulfill the aspirations of the members of APUA.

4.4 Marketing Strategies

4.4.1 Marketing Strategy and Activities

Marketing and sales strategy will be based on market penetration and expansion. This will entail an active engagement in current markets to drive business growth while expanding into new markets. New products will be launched to support the growth in both numbers and revenue. The centre’s marketing strategy will be anchored on the following:

- Broaden product range to include non-hydropower to other renewable energy training
- Expand market segment to non-traditional clients
- Create demand in our product lines
- Increase on location training to tap higher market share.
- Customer Retention
- Continuous assessment of the product range and pricing

4.4.2 Advertising

The Centre advertises the training, conferences and accommodation facilities in local and foreign journals, magazines, and newspapers such as the ESI Africa magazine of South Africa, the Zambian Traveler, and The Observer of Uganda, Zaminex magazines, Zambia National Broadcasting Corporation (ZNBC), KGRTC electronic newsletter and website. These channels have helped to promote the Centre’s offerings to a wider market. In the medium we plan to expand broad advertising outlets to reach more customers.

4.4.3 Marketing Literature

KGRTC Training prospectus, Conference and Training brochures, Calendars, and other marketing and promotional instruments will be distributed to clients and stakeholders at different events and activities, physically, by postal services, courier and electronically for promotional purposes. This will be done on an annual basis and as regular as possible.

4.4.4 Promotional Activities

KGRTC will participate in promotional activities through sports, conferences, exhibitions, international visits, market surveys and use the same avenues for advertising.

4.4.5 Corporate Social Responsibility

KGRTC will be a responsible corporate citizen and in keeping with global trends will minimise production of its carbon footprint and also be good corporate citizen. Whenever feasible KGRTC will partner with the community around to engage in activities that add value to the community.

4.5 Market Projections for 5 Years (2013 – 2017)

These projections are based on market conditions all things remaining constant. In view of historical market conditions, it's unlikely that the harsh global economic could be worse than they have been. The region is on a surge and World Bank projections show growth rates above 5 percent of GDP. Participation is estimated to grow at 5 percent per annum over the plan period.

This is seen as a safe estimate given the expansion in energy development.

This position has been adopted because although there is a lot of activity in the sector in terms of both expansion of existing infrastructure as well as greenfield growth, most of the works will only come on line towards the end of the plan period and at best half way through the plan period.

Table 10: Forecast Participation 2013 – 2017

S/N	Country	Number of Course Participants	Percentage
1.	ANGOLA	13	0.1
2.	BOTSWANA	77	0.7
3.	BURUNDI	9	0.1
4.	CONGO DR	13	0.1
5.	ETHIOPIA	7	0.1
6.	GHANA	46	0.4
7.	KENYA	182	1.7
8.	LESOTHO	0	0
9.	MALAWI	603	5.7
10.	MAURITIUS	0	0
11.	MOZAMBIQUE	913	8.6
12.	NAMIBIA	103	1.0
13.	NIGERIA	33	0.3
14.	RWANDA	635	6.0
15.	SOUTH AFRICA	7	0.1
16.	SOUTH SUDAN	90	0.8
17.	SWAZILAND	188	1.8
18.	TANZANIA	959	9.0
19.	UGANDA	680	6.4
20.	ZAMBIA	5940	56.0
21.	ZIMBABWE	116	1.1
Total		10614	100

CHAPTER FIVE

5.0 THE PLAN

5.1 Vision Statement

The vision statement has been developed as follows: "To be the Learning and Development Centre of choice in le Energy Technologies".

5.2 Mission Statement

The mission statement for the Centre has been developed as follows: "To provide a learner-centered environment for the acquisition of skills and competencies in Energy Technologies".

5.3 Core Values

a) Excellence

WE believe in excellent service delivery and customer satisfaction. We will employ resources at our disposal in the pursuit of professional service delivery. We will remain responsive to client's needs and demands. KGRTC's name in the market will be synonymous with quality, responsiveness and excellence.

b) Integrity

WE up-hold professional and ethical business practices. The Centre's transactions with customers will be done transparently, for our benefit and that of clients. We will ensure honesty, integrity and respect to all.

c) Team Spirit

WE value teamwork. We believe team spirit will sustain efficiency and effective service delivery. We will recognize the contribution and value of individuals in a team.

d) Learning and Innovation

WE believe in continuous learning and promotion of innovation. We believe these will sustain total quality consciousness in the organization.

e) Social Responsibility

WE believe in social responsibility. We will participate in community development and environmental protection.

f) Zero Tolerance to Corruption

WE believe in zero tolerance to corruption. We will uphold and promote whistle blowing in the fight against corruption and all its vices.

5.4 Strategic Thrust

The Centre's strategic thrust can be summarized into three strategic themes. These are:

a) **Financial performance**: The financial sustainability is a long-term objective not achievable in the short term.

b) **Increase training delivery capacity in renewable energy technologies**: As a knowledge leader, KGRTC needs to be supported to develop internal capacity and capability to deliver in this area. Training in this field therefore requires equipment and staff capacity.

c) **Institutional sustainability**: The Centre needs to have necessary structures, mechanisms and delivery capacity to ensure its relevance.

Table 11: Strategic Objectives and KPI's				
Strategy	**Objective**	**Performance Target**	**Time Frame**	**Responsibility**
Financial Performance	To provide quality training and increase revenue by 5% annually	Minimum of 300 course participants annually	2013	Training Manager
		2 training needs assessments undertaken annually outside Zambia	2017	
		Review and revise all old and new courses	2015	
	To increase market share by 10%	Revise marketing Policy	2013	Marketing and Public Relations Manager
		Introduce 10 new clients annually	2017	
	To Diversify the training package to satisfy the customer requirements	Introduce distance learning	2014	Training Manager
		Conduct a minimum of four tailor made courses annually	2017	
Increase Training Capacity in Energy Technologies	To design and Develop new courses in energy technologies	Develop new courses in Solar Energy Technology	2014	Training Manager
		Develop new courses in Wind Power technology	2014	
		Develop new courses tailor made for the mini hydro power station	2016	
	To acquire and install infrastructure for new energy technologies	Install and operate wind turbine at KGRTC	2015	Training Manager
		Install and operate solar equipment at KGRTC	2015	
	To Develop a mini – hydro power station	Mobilize funding for mini hydro power station	2013	Director
		Construct and operate a mini hydro power station	2017	
Institutional Sustainability	To establish and maintain effective formal relations with other institutions	Review all existing MOU's with CBU, UNZA, SBB,	2013	Training Manager
		Database on all similar institutions established and operational	2013	Training Manager and Registrar
		All KGRTC courses placed on the SADC Qualification Protocol	2015	Training Manager
	To effectively develop and maintain human resources	All KGRTC employees appraised mid year and annually	Annually	All HOD's
		KGRTC internal training needs analysis undertaken annually	Annually	Registrar
	To provide cost effective logistical and administrative support services	Procurement plan for KGRTC developed and implemented annually	Annually	Bursar
	To Review the KGRTC Business Plan	Business Plan reviewed annually	Annually	Board of Trustees

5.5

5.6 Risk Assessment

If effective management is about attaining set goals and objectives, then risk management is about ensuring that those goals are attained. Without risk management there is no effective management. Both the business plan 2013-17 and the Scenarios outlined to 2025 have inherent risks. These must be addressed. Below, the risks are identified, mapped and mitigation suggested.

5.6.1 Risks

The risks identified during the planning period include:

a) The probability that ZESCO may withdraw the MOU

b) Work stoppage/industrial action

c) Finance risk

d) Competition (utilities upgrading/revamping own training Centres)

e) Loss of donor support

f) Regional economic growth instability

g) The probability that there will be management instability in utilities

h) Loss of key technical and management staff

i) Fire risk

j) Product risk

k) Theft

l) Political instability in the region

m) Probability of Regional disintegration or loss of integration momentum.

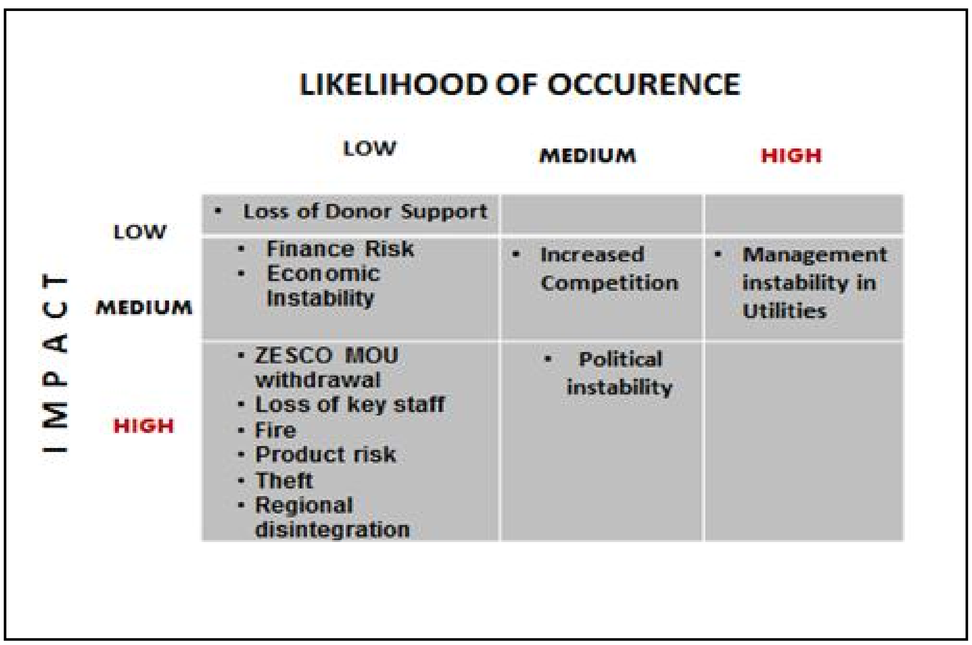


Figure 2: KGRTC Risk Map

5.6.2 Risk Mitigation

From the risk assessment above, it is clear that the one key risk the Centre must prioritize is **management instability in the utilities**. A change in key managers could lead to policies and decisions inimical to the Centre. The Centre needs to take actions that will mitigate the effects of the worst scenario of all or most utilities making unilateral decisions to stop using the Centre.

The plan envisages three strategies, viz:

- Diversifying customers to include more targeted marketing for both customized and scheduled courses to be offered directly to and at the mines starting in Zambia, and also across borders
- Diversifying the source of participants to include other energy technologies training that may not necessarily be from electricity and water utilities but from sugar industry, colleges, the mines etc.
- Diversifying revenue sources itself to include growth in non-training income including the proposed mini-hydro power station that will supply power to ZESCO and the learning Centre that will house facilities that can be used for conferences

The Second group of risks is **increased competition** and **political instability**. In terms of competition, the Centre will differentiate itself by offering the highest level of quality training in line with its vision of being the Centre of choice.

In this respect, KGRTC will peg itself at the level of those in Europe and Canada. Investing in a Mini hydro will set the Centre apart and provide intellectual leadership.

Competition will also be addressed by proactive partnering with potential competitors in a number of courses. Political instability requires widening the source of participants so that if one area is affected by instability, other areas can still supply participants. In this regard, the Centre will upgrade its marketing in countries with potential but low participation.

Both Portuguese Africa and Francophone Africa will be accessed aggressively. In this regard, investment in language translation equipment will be a boon to this effort.

The **'high impact low probability of occurrence'** risks will need to be watched carefully for any sign of changes in probability of occurring. These include ZESCO MOU withdrawal notwithstanding the high support from the current ZESCO management, loss of key staff, fire, product risk, regional disintegration and theft.

5.7 Financial Projections for the Business Plan: 2013-2017

The financial projections are based on the strategic objectives and performance targets in this chapter. The targets gave rise to the assumptions in table 12 below from which the figures in Table 13 are derived.

Table 12: Assumptions for the Business Plan projections to 2017

	2013	2014	2015	2016	2017
20Income growth rate	8%	10%	10%	10%	10%
Increase in personnel costs rate	13%	13%	13%	13%	13%
Inflation rate	8%	8%	8%	8%	8%
Increase in operational costs	8%	8%	5%	5%	5%
Marketing costs	8%	8%	8%	8%	8%
Transport costs	8%	8%	8%	8%	8%
Personnel costs paid by ZESCO					
Fuel costs paid by ZESCO(Km)	240	240	240	240	240
Participant growth: 5%					

Cumulative income growth will be 38 percent over the period. This will call for more intensive marketing effort and product development to remain relevant.

Table 13: Projected Statement of Financial Position for the Business Plan

	2012	**2013**	**2014**	**2015**	**2016**
ASSETS	**US$ 000**				
Non- Current Assets					
Property, Plant and Equipment	1,851	1,592	1,383	1,214	1,077
Current Assets					
Inventories	68	73	79	85	92
Trade and other Receivables	692	747	822	904	994
Cash and Bank balances	575	607	665	767	921
	1,334	1,427	1,566	1,756	2,008
Total Assets	**3,185**	**3,019**	**2,949**	**2,970**	**3,084**
FUNDS AND LIABILITIES					
Funds and Reserves					
Revaluation Reserves	1,623	1,623	1,623	1,623	1,623
Accumulated Reserves	718	523	416	395	458
	2,341	2,146	2,039	2,018	2,081
Non- Current Liabilities					
Capital Grants	309	282	255	228	202
Revenue Grants					
	309	282	255	228	202
Current Liabilities					
Trade and Other Payables	535	591	655	723	801
Bank overdraft					
	535	591	655	723	801
Total Funds and Liabilities	**3,185**	**3,019**	**2,949**	**2,970**	**3,084**

CHAPTER SIX

6.0 BUSINESS PLANNING PROCESS

6.1 Introduction

At the planning stage five scenarios were worked out for the period 2012 to 2025. This is long range forecasting which may be prone to changes in operating environment. The risk is always that any drastic negative changes may render some assumptions irrelevant. To mitigate against this outcome, the Business Plan has been done using fairly conservative assumptions. In any event the highest danger lies in the market based assumptions due to the large expanse of the geographical coverage. This Business Plan adopted the scenario which envisaged investment in a mini-hydro power station and other infrastructure while continuing with staggered reduction in Zesco support, using 2011 as the base year.

6.2 Preferred Scenario for Business Plan

The Business Plan assumes ZESCO support is continued but gradually reduced, a Mini-hydro power station is constructed and installed, new guest rooms constructed and a New Learning Center is built with training simulators installed, and new energy technologies installed and operational**.**

Assumptions in detail

a) ZESCO support continues but from 2017 the contribution is reduced by 5% annually.
b) A Mini-hydro Power Station is built and comes on line in the third year.
c) New energy technology equipment for Solar and Wind are procured and installed by the third year.
d) New Learning Centre facilities are created (expansion of guest rooms, classrooms and laboratories) and income is realized from the second year.
e) Training arising from the Mini hydro will be:
    i. Number of courses: 4
    ii. Number of participants per course will be: 10
    iii. Fees per course will be: US$ 5,000
f) Bulk sale to ZESCO will be at a per unit tariff of US$0.066 per KWh
g) ZESCO estimated monthly energy purchase in KWh will be 3,600
h) Operation and Maintenance of the Mini hydro is taken at 40% of gross Mini hydro revenue
i) Operation and Maintenance costs will be 40% of revenue
j) Insurance will be 1% of machine value
k) Overheads will be 1 % of total overheads
l) Depreciation will be 2% of machine value

The assumptions of the Business Plan are extended to 2025. Conservativeness is applied to income and cost trends for the longer term due to uncertainties the further into the future the estimate is. The detailed analysis of the Business Plan shows a very favorable financial outcome.

It is important to note that ZESCO is critical to the achievement of the objectives of the Plan and its outcome. Any surplus arising from this Business Plan shall be reinvested in the business. There is a possibility that by 2030, the Centre could therefore assume a more independent posture and without having to increase fees.

The investment of a one off US$13.7 million has been factored in the Plan and comes on stream in the last quarter of 2015. The revenue stream from this facility is tied around sale of excess electricity to ZESCO, construction of a learning centre and purchase and installation of simulators for transmission and distribution networks. This will strengthen KGRTC to compare with any other world class facility. The investment is factored in the accounts and appears in the expenses.

Income from simulators will come from four new courses that is estimated to attract a total of 40 participants each paying US$5,000 resulting in a total additional income of US$200,000 per annum. This amount is factored into the analysis in Table 14 (as part of internally generated income).

The construction of the learning centre and expansion of other facilities including classrooms will transform the Centre into ***the Centre of Choice*** leading hopefully to repeat business. For the financial projections in Table 24, income is restricted to the simulators. The Centre's impact is expected to support marketing efforts and thus feed into the forecast participant growth. A direct relationship between improved classrooms and laboratories exists. This, it is felt, is as it should be. Quality facilities may bring in more users. However, numbers of participants are the direct result of many efforts including marketing, fee structure etc.

The Business Plan with envisaged investments will produce surpluses for all the years forecasted up until 2020 onwards then produce deficits. Moreover, the surpluses will maintain an upward trend. The cumulative surpluses will be significant indeed. It is these surpluses that will create a base for diversification into other energy technologies and eventually, the Centre's financial self-sufficiency. The Business Plan's assumptions are reasonable. The attainment of the outcomes is probable. For the amount of investment envisaged, there would be a good outcome.

It is for these reasons that the Board of Trustees and Management and the consultant engaged to by prospective donor of funds for the investments recommended this scenario. Management also believes the investment stands an excellent chance of succeeding and having a good return on investment given current management's commitment and passion for success.

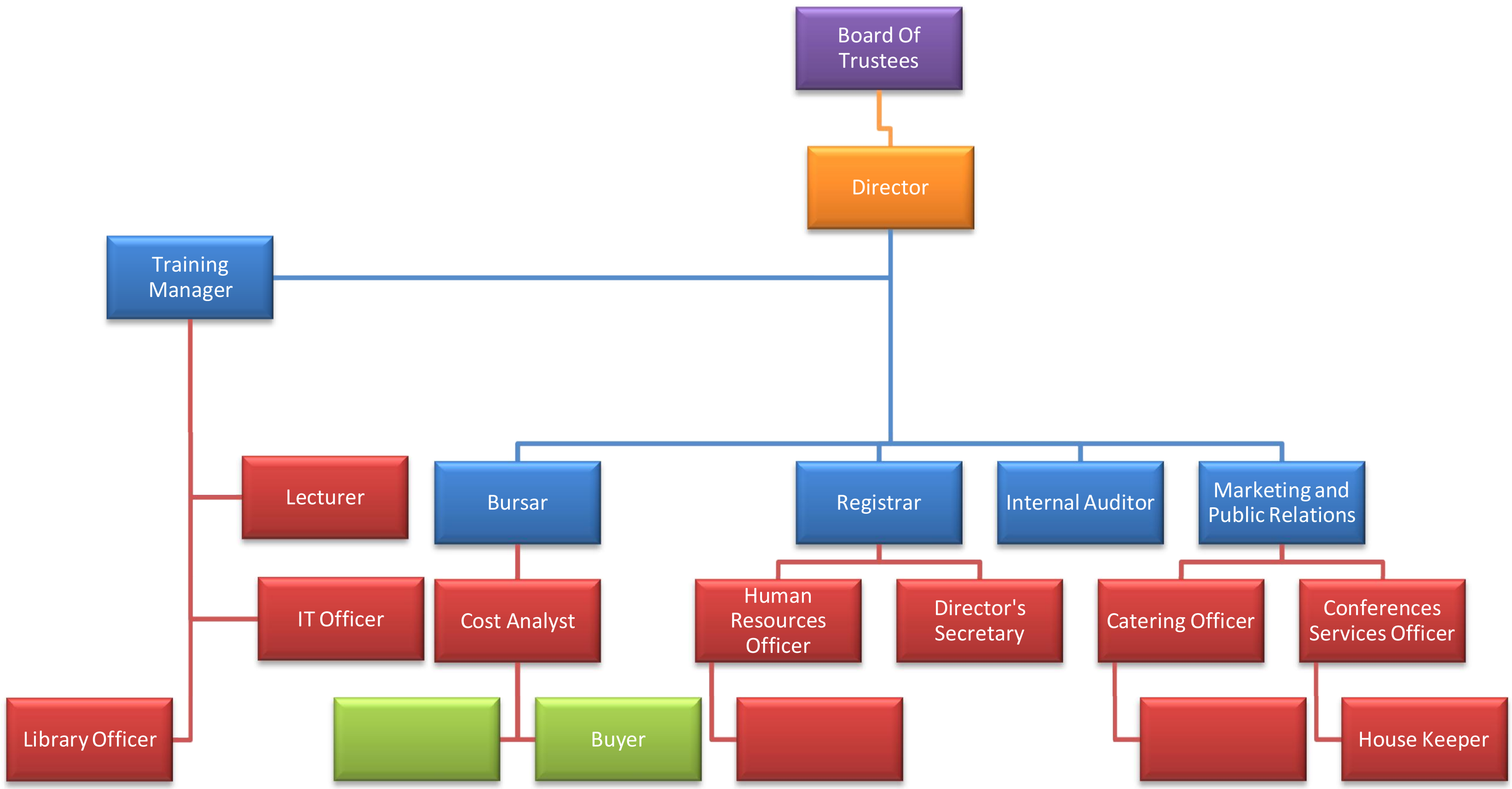
6.3 Key Expectations from the Investment

The investment will bring together both disruption and stability. Disruption in terms of all the new investments. Stability is assured by the retention of the ZESCO support until such a time in the future that KGRTC will have accumulated sufficient surpluses and diversification to stand on its own, it has the best results from operations, and it alone assures diversification and financial sustainability.

Table 14 Projected Income and Expenditure Accounts **with ZESCO support (5% annual reduction) continued, mini-hydro power station and new learning centre facilities built,**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Income	**US$ 000**													
Internally Generated	1,729	1,867	2,054	2,260	2,486	2,734	2,953	3,189	3,444	3,720	4,017	4,339	4,686	5,061
ZSCO contribution	1,885	2,123	2,393	2,698	2,738	2,464	2,218	1,996	1,796	1,617	1,455	1,310	1,179	1,061
Mini hydro	0	0	0	626	3,340	3,489	3.646	3,811	3,985	4,258	4,551	4,866	5,205	5,570
Other donor funding														
Total	**3,614**	**3,991**	**4,447**	**5,584**	**8,564**	**8,687**	**8,817**	**8,996**	**9,225**	**9,595**	**10,023**	**10,515**	**11,030**	**11,692**
Expenses	**US$ 000**													
Personnel	1,837	2,075	2,345	2,650	2,994	3,384	3,790	4,244	4,754	5,324	5,963	6,679	7,480	8,378
Direct operation	420	453	490	529	571	617	666	719	777	839	906	979	1,057	1,142
Administrative	932	1,006	1,086	1,174	1,268	1,369	1,479	1,597	1,725	1,863	2,012	2,172	2,346	2,534
Marketing	153	165	179	193	208	229	252	277	305	335	369	406	446	491
Transport	210	227	245	265	286	309	333	360	389	420	454	490	529	571
Mini hydro expenses	0	0	0	277	1,152	1,198	1,247	1,299	1,352	1,437	1,528	1,626	1,732	1,845
Total	**3,552**	**3,927**	**4,345**	**5,087**	**6,479**	**7,106**	**7,767**	**8,497**	**9,302**	**10,219**	**11,232**	**12,352**	**13,591**	**14,961**
Surplus/(Deficit)	**62**	**64**	**102**	**497**	**2,085**	**1,581**	**1,050**	**499**	**(77)**	**(624)**	**(1,209)**	**(1,837)**	**(2,561)**	**(3,269)**

APPENDIX 1: KGRTC STAFFING



APPENDIX 2

STATEMENT OF CASHFLOW PROJECTION US$ '000

	2012	2013	2014	2015	2016
Net surplus for the year	62	64	102	1480	201
Depreciation					
Loss/(Profit) on disposal of assets					
Interest received					
Rent, water and electricity					
Amortization of capital grants		(27	(27)	(27)	(27
Revenue grants to training					
ZESCO contribution					
Utilities contribution					
Operating deficit before working capital changes	62	37	75	121	174
(Increase)/decrease in inventory	(41)	(5)	(6)	(6)	(7)
Decrease/(increase) in trade & other receivables	(175)	(55)	(75)	(82)	(90)
(Decrease)/increase in trade and other payables	125	56	63	69	78
Net cash outflow from operating activities	**321**	**32**	**58**	**102**	**154**
<u>Returns on servicing of finance</u>					
Interest received					
<u>Investing activities</u>					
Proceeds from disposal of assets					
Purchase of assets					
Net cash inflow from investing activities					
<u>Financing activities</u>					
Grants and contributions received					
Net cash inflow from financing activities					
Movements in cash and cash equivalents	**321**	**32**	**58**	**102**	**154**
Opening cash and cash equivalents	254	575	607	665	767
Closing cash and cash equivalents	**575**	**607**	**665**	**767**	**921**
Changes in cash and cash equivalents	**321**	**32**	**58**	**102**	**154**

APPENDIX 3

Financial Ratios 2008 – 2011

	Ratio Name	Formula	Ratios/year				Comments
			2008	2009	2010	2011	
1.	Defensive Interval (DI)	Cash + Recievables/Average Monthly Expesnes	8.2	6.8	4.0	4.3	Picking up in 2011
2.	Liquid Fund Indicator (LFI)	Total Net Assets – Restricted Net Assets – Non Current Assets/Average Monthly Expenses	8.5	7.0	4.2	4.4	
3.	Savings Indicator	Revenue – Expenses/ Total Expenses Note: Internally Generated Revenue Only	-0.48	-0.57	-0.62	-0.66	Poor. This needs to be increased to ≥1
4.	Sources of Revenue	Donors	7%	7%	11%	11%	
		Zesco	44%	44%	54%	50%	
		Internally Generated	49%	49%	35%	33%	Will need to grow this
5.	Income Over Net Non-Current Ratio	Gross (includes Grants)	1.8:1	2.0:1	2.2:1	2.6:1	On the Upward Trend
6	Current Ratio		3.9:1	4.5:1	5.5:1	7.1:1	Rule of Thumb is 2:1
7.	Return on Assets (ROA)		-11%	-25%	-4%	1%	Poor but recovery in 2011

DEFENSIVE INTERVAL (DI): Reflects how many months the organization could operate if no additional funds were received

Liquid Funds Indicator (LI): Like the DI but more conservative. It shows the number of months' expenses that can be covered by the unrestrictive assets

Savings Indicator (SI): measures the increase or decrease in the ability of an organization to add to its net assets. SI>1 indicates an increase in savings