

# KGRTC – SADC Centre of Excellence

KGRTC Presentation at  
the 26th ZIHRM AGM

May 2023



**“Your Home for Energy Training, Consultancy, and Conferences”**



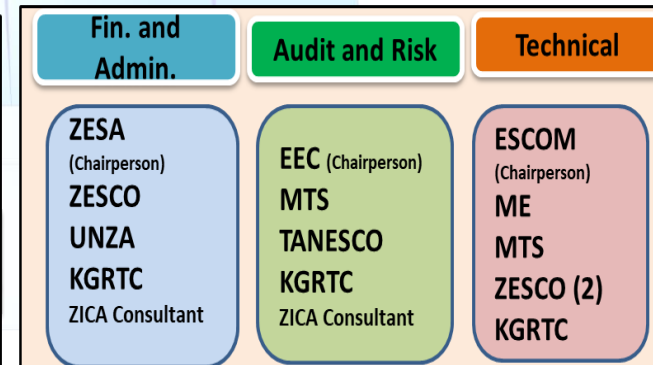
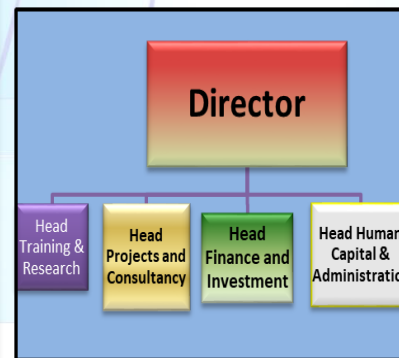
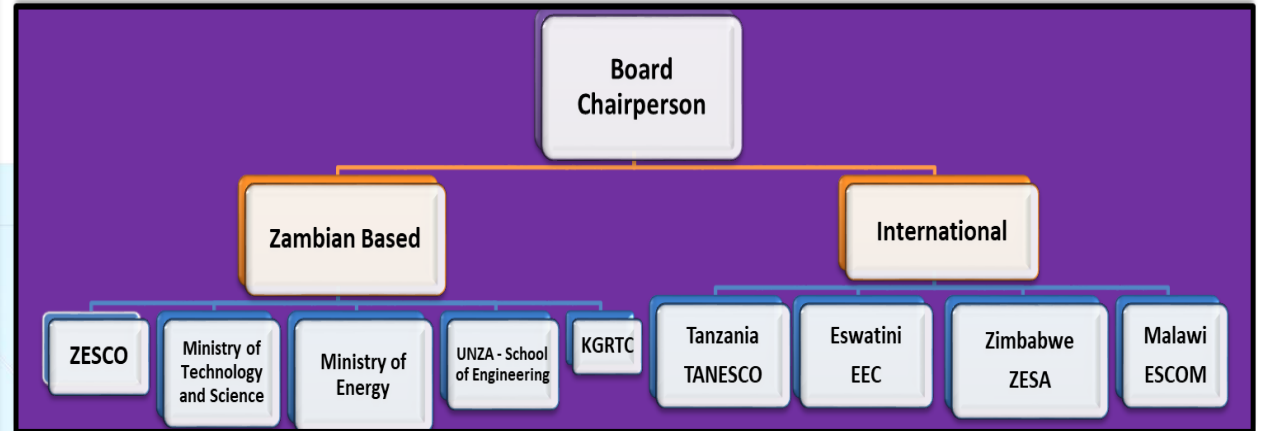
- 1. About KGRTC**
- 2. KGRTC Quality Assurance**
- 3. KGRTC Training and Consultancy Highlight**
- 4. Conclusion**

# 1. About KGRTC

## 1.1 Governance and Mandate - KGRTC Establishment



- KGRTC was established in 1989 by a resolution of SADC Ministers responsible for Energy as a Project for Capacity Building in **Hydropower Electrical Energy**, and supported by Sida, NORAD and ZESCO.
- KGRTC is governed by a **Board of Trustees (BOT)**, in line with a **Memorandum of Understanding** between ZESCO and the KGRTC BOT.



Staff Establishment **102**; Current Strength: **83**; (F:27; M:56)  
 Management: **7**; Consultants: **6**; Supervisory: **13**; Support: **57**



# 1. About KGRTC –

## 1.2: Business Description

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### Vision

“A leading Centre of Excellence for capacity building in energy technologies in Africa.”

### Mission

“To Provide a Learner-Centred Environment for the Acquisition of Skills, Competencies and Research in Energy Technologies.”

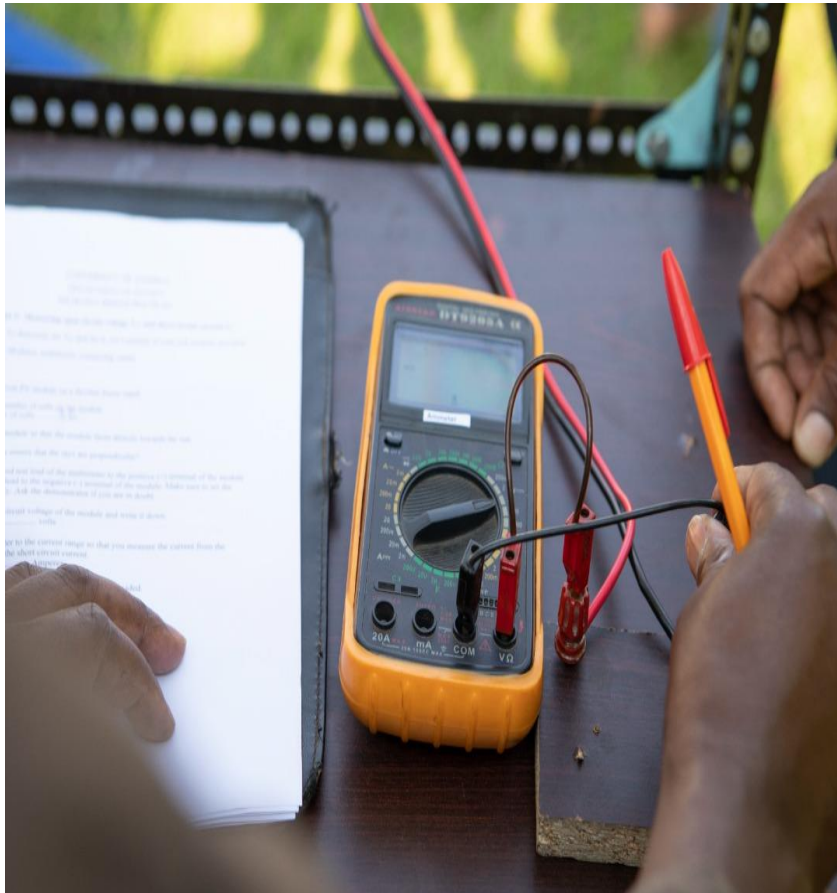
### 6 – Core Values

Integrity, Team Spirit, Excellence, Client Centricity, Accountability, and Diversity.

# 1. About KGRTC –

## 1.2: Business Description

Training & Research Department – Training Programmes Specialization



- **Six (6) Focus Areas:**
  - Electricity Generation and Development Courses
  - Electricity Transmission and System Operations Courses
  - Electricity Distribution Courses
  - Engineering Application Course
  - Safety Health Environment and Quality Courses
  - Leadership and Management Courses.

# 1. About KGRTC –

## 1.2: Business Description



Training & Research Department – Training Programmes Specialization



- **Four (4) Modes of Delivery:**
  - On-Campus Face to Face Training at KGRTC
  - On client-site Face to Face Training
  - Online via the KGRTC E-Campus
  - Blended Approach.
- **Level of Certification:**
  - 105 Catalogue Courses approved **at Skills Award Level**
  - 1 Professional Development Course at Diploma Level.
- **Planning:**
  - 60% from 105 Catalogue Courses and
  - 40% from Tailor-made courses.

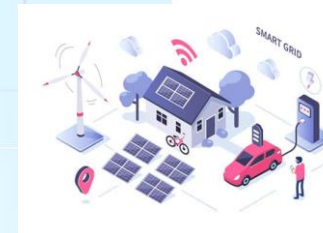


# 1. About KGRTC –

## 1.2: Business Description

### Projects and Consultancy Department – Services

- **Renewable energy development projects design and packaging**
  - Site identification and qualification (solar, wind, hydro, biomass, geothermal)
  - Reconnaissance studies
  - Prefeasibility studies
  - Feasibility studies
- **Energy yield assessments**
  - Solar, wind, hydro, biomass, geothermal technologies
- **Energy management**
  - Industrial energy auditing
  - Energy management systems
  - Smart grid systems
  - Carbon trading
- **Energy systems studies**
  - Grid impact studies
  - Power Quality
  - Energy markets and resource mapping studies
- **E-mobility solutions (Electric vehicles)**
  - Electric Vehicle (EV) standards & policies (e-mobility regulatory frameworks, EV charging stations)
  - EV technologies advisory services
- **Management systems**
  - o Project management
  - o Management systems implementation (ISO 9001, ISO 50001, ISO 14001)



# 1. About KGRTC

## 1.3: Clientele for Training & Consultancy

- Electricity Utility Companies
- Regulatory Bodies
- Government Ministries and Agencies
- Mining Companies
- Water Supply and Sanitation Companies
- Private/Public Industry and Commerce
- TVET Learning Institutions
- EU and UN Agencies, & other Organizations

## 1.4 Country Participation Since 1991

(27 African + 3 Asian\* + 2 European\*\*)

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1. **Angola**
  2. **Bhutan\***
  3. **Botswana**
  4. **Burundi**
  5. **Cameroon**
  6. **Congo DR**
  7. **Cote d'Ivoire**
  8. **Egypt**
  9. **Eswatini**
  10. **Ethiopia**
  11. **Ghana**
  12. **Kenya**
  13. **Lesotho**
  14. **Liberia**
  15. **Malawi**
  16. **Mauritius**
  17. **Mozambique**
  18. **Namibia**
  19. **Nepal\***
  20. **Nigeria**
  21. **Portugal\*\***
  22. **Rwanda**
  23. **South Africa**
  24. **South Sudan**
  25. **Sri Lanka\***
  26. **Sudan**
  27. **Tanzania**
  28. **The Gambia**
  29. **UAE\***
  30. **Uganda**
  31. **Zambia**
  32. **Zimbabwe**

Key: **Red** and **Blue**: SADC participants; **Blue**=KGRTC Board of Trustees member utility country



# 1. About KGRTC –

## 1.5 Partnerships & Collaborations



POWER CONSULTING ENGINEERS



**African Union**  
a United and Strong Africa



**Sida**

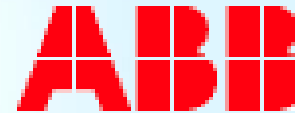
SWEDISH INTERNATIONAL DEVELOPMENT  
COOPERATION AGENCY



International Training Centre



**UNIPOWER, Sweden**  
**Solektra Solar Academy**



**McDonald Liveline Technology Zambia Limited**



- ✓ PPA Energy – UK
- ✓ ESKOM Learning Academy\*
- ✓ Galilee Management Institute of Israel\*\*



# 1. About KGRTC –

## 1.6: KGRTC Centre of Excellence



# Centre of Excellence for Energy Training, Consultancy and Conferences



## 2. KGRTC Quality Assurance



- **Integrated Management Systems (Certified to ISO 9001 Quality, and implemented ISO 22000 Food Safety, and ISO 50001 Energy Systems)**



- **IMS** documented Procedures and Processes
- **KAIZEN** Teams for continual improvement
- Audits and **Compliance Monitoring**

- **Training Quality Advisory Committee (TQAC)**
  - (Curriculum Review & Approval: Industry, Academia, Regulators)
- **TEVET Accreditation** (Technical Education, Vocational and Entrepreneurship Training Authority: **Centre of Excellence in Energy Training**)



- **Curriculum** Development and Review
- **Compliance Monitoring and Auditing**

# 3. KGRTC Training and Consultancy Highlight



## 3.1 Certified Energy Auditor Training (CEAT)

A Ministry of Energy/European Union IAEREP Project; KGRTC as implementing Consultant – CEAT 2022/CEAT 2023



Ministry of  
Energy



### Main Goals:

- Train Zambian engineers to become professional energy auditors
- Energy Auditors recognized and certified by the Engineering Institution of Zambia (EIZ)
- Impart energy auditor skills to:
  - Analyze industrial and commercial facilities energy consumption
  - Make energy saving recommendations, investments, payback period.
  - Present energy audit recommendations to policy makers, industry executives and financial decision makers.

### 2022/2023 Highlights:

- **66 engineering** professionals trained as energy auditors
- Total of **12 practical** industrial energy audits conducted



# 3. KGRTC Training and Consultancy Highlight



## 3.2 TEVETA Skills Development Fund (SDF)

KGRTC is supporting Zambia's Vision 2030 on the goal of developing skilled human capital needed for sustainable industry growth and national development

KGRTC is providing skills training to the Zambian Industry through the TEVETA Skills Development Fund

Benefits for Industry to conduct staff training skills through the TEVETA Skills Development Fund

- 50% training budget paid by the SDF Fund for compliant organizations
- KGRTC facilitates preparing of training proposal with Client input for submission to TEVETA
- Post-training assessments and follow up training needs assessment services by KGRTC



Industry remits to skills levy



Training provider conducts skills training



Industry partners with training provider



# 3. KGRTC Training and Consultancy Highlight



## 3.3 Overview of SESA Project; 2021-2023



1. **Skills for Energy in Southern Africa (SESA)**
2. **Thematic Areas**
  - a) **Renewable Energy**
  - b) **Energy Efficiency**
  - c) **Regional Energy Integration**
3. **Financier: Sida, via PPDP**
4. **Cooperating Partner: ILO**
5. **Implementing Agency: KGRTC**
6. **Implementation period: 2021-2023**



International  
Labour  
Organization

SWEDISH INTERNATIONAL DEVELOPMENT  
COOPERATION AGENCY



AFUE GORGE  
REGIONAL TRAINING CENTRE

**Note: The SESA project has free scholarships for female participants from SADC countries – paid tuition, meals and accommodation and air tickets from outside Zambia**

### Over 19 New Course Developed Under SESA Project (Excerpt list is provided below)

- Financial Modelling and Bank Financing for Renewable Energy for Independent Power Producers in Africa
- Financial Modelling for Renewable Energy Projects
- New Market Structures and Renewable Energy for Independent Power Producers in Africa
- Business Planning for IPPs/Starting up a Renewable Energy Project
- Off-Grid Solar System Design and Installation
- Grid Integration of Renewable Energy Sources (Wind, Solar, Hydro);
- Construction Contracts & Power Purchase Agreements; GIS for Renewable Energy Planning
- Power Trading; Industrial Energy Efficiency; Asset Management, etc., etc.

# Conclusion

1. KGRTC – Has a Strengthened Status as a Subsidiary Organisation of SADC, and a “**Centre of Excellence**” for capacity building and certification of competencies and consultancy in *Renewable Energy, Energy Efficiency, and Regional Energy Integration*.
2. KGRTC – is a **Centre of Excellence** with strong and formalised collaborations with industry stakeholders.
  - a) Infrastructure for sustainable development in *Renewable Energy, Energy Efficiency, and Regional Energy Integration*; and
  - b) *Knowledge transfer* and shared expertise.
3. KGRTC - Established Platform for enhanced learning methods and research and an **information repository**.



# Thank You!

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