An Overview of the Technical Regulation Department

12th May, 2017

Energy Regulation Board, Head Office, Lusaka
Technical Regulation Department (TRD)

Functions of the Department

• To monitor performance and enforce compliance of petroleum, electricity and renewable energy infrastructure

Main Objective

• To review, develop and enforce standards and guidelines for monitoring of licensees with respect to environment, performance, quality, safety and reliability of supply of energy products and services

Sector Regulation and Support

• To ensure that utilities provide a level of quality of service and products which are acceptable to customers
# Roles Supporting TRD’s Functions

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<td>1</td>
<td>Conduct environmental impact assessment</td>
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<td>2</td>
<td>Incident investigations</td>
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<td>3</td>
<td>Infrastructure inspections and audits</td>
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<td>Development of technical standards</td>
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<td>Product and service quality monitoring</td>
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<td>Conduct technical hearings</td>
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<td>7</td>
<td>Technical support to other departments</td>
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Achieving The Objective of TR
Regulatory strategy – transforming technical risks into opportunities

Implementing the strategy
- Licensing, Setting standards, applying standards, monitoring performance, responding to performance & providing technical support to other departments

Working closely with industry players and stakeholders
Regulated Industry – Electricity

- **Distribution**
- **Transmission**
- **Generation**

**Agriculture**
**Commercial**
**Industrial**
**Mining**
**Residential**

Transmission lines and substations at 88 kV, 132 kV, 220 kV & 330 kV

**ZESCO** (2,220 MW)
**Maamba** (300 MW)
**Ndola Energy** (50 MW)
**Lunsemfwa Hydro** (48 MW)
**Copperbelt Energy** (80 MW)
**Ndola Energy** (50 MW)
**Zengamina Power** (0.75 MW)
**Itezhi-Tezhi Power** (100 MW)

**Fuel Sources**:
- Hydro
- Coal
- Oil
- Electricity

We safeguard your interests
Fossil Fuels – Industry Structure

We safeguard your interests
Regulated Industry – Fossil Fuels

About 450+ fuel tankers licensed to transport petroleum products

INDENI operates the only refinery in Zambia

TAZAMA Pipelines Ltd (importation, transportation of feedstock, wholesale marketing and export of petroleum products)

TAZAMA Petroleum Products Ltd (Terminal storage)

Gas Distribution (Afrox, Oryx, Ogas, Lake Petroleum, Mount Meru, Industrial Gases)

Lubricants (importers and wholesalers)

Colas Zambia Ltd distributes bitumen

70+ Road fuel transporters

300+ Retail Filling Stations

Fuel Depots

One refinery

One Bitumen Distributor

33 Oil Marketing Companies
Renewable Energy

IDC is driving the initiative for integrating utility scale solar photovoltaic plants.

- Regulatory approvals have been granted
  - Environmental impact Assessment
  - Power Purchase Agreements
  - Investment Endorsements

Bangweulu Power Company Limited
Ngonye Power Company Limited
### Renewable Energy

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<td><strong>Solar</strong></td>
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<td>- Regulating the manufacture, importation and installation of solar energy products</td>
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<td>- Over 40 licenses have been issued</td>
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| **Biofuel** |
| - One license issued for production of biofuels |
| - A framework for blending biofuels with petroleum is already in place |

| **Biogas** |
| - Developed an industry code of practice for commercial biogas producers |
| - No license issued yet |
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Regulatory Milestones – Key Highlights

- Grading of petroleum infrastructure
- Various technical standards: solar, biofuel, biogas, petroleum and electricity
- Renewable Energy Regulatory Framework
- Implementing the Grid & Distribution Codes
- Revision of ZS 385 to include above ground containerised service stations
- Power Quality Management System including standards on Energy Efficiency
- Siting Guidelines and Construction Licence for petroleum infrastructure
- Additional technical KPIs for ZESCO – generation efficiency & safety
- Investment Endorsement framework for power projects
Work in Progress & Planned Activities

- Technical Licencing Guidelines and Requirements
- Licensing Framework for Consumer Site Facilities
- Revising licensing guidelines for retailing Liquefied Petroleum Gas

Draft paper – Framework for licensing energy efficiency activities
Enhancing stakeholder collaboration: ZABS, ZEMA, RTSA, ZWMA
Challenges

Industry dynamics changing at a very fast pace

Limitations in the capacity of laboratories

Fuel dumping and adulteration

Illegal fuel vending

No facilities for testing solar energy products

Lack of regulatory framework for energy efficiency

Propensity for regulatory circumvention by State-Owned Enterprises

Delays in enacting new legislation e.g. Electricity Supply Regulations, Draft Open Access Regulations

Inadequate legislative provisions to execute some enforcement actions

Irregular submission of regulatory reports by some licensees

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Allen Polito | Director – Technical Regulation

Technical Regulation Department | Energy Regulation Board

Thank you for your attention