



Rwanda Energy Investment Forum  
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Rwanda's Power Market – the Role of EWSA  
*(Energy, Water & Sanitation Authority)*

**Yves Muyange – Director General, EWSA**



# Presentation Outline

- Introduction of EWSA
- EWSA's main responsibilities
- Current status (Governance & Structure)
- Current status (operations & on-going improvement initiatives)
- Regional Comparisons (tariff, subsidies, customers, capacity)
- Readiness for increased investment



# Introduction

- EWSA constitutes (former RECO – Rwanda Electricity Company & RWASCO – Rwanda Water & Sanitation Company, and Energy, Water and Sanitation Projects of MININFRA – Rwanda Ministry of Infrastructure)
- **Created by Law no 45/2010 of 07/12/2010** to ensure adequate and quality electricity, water and sanitation services in Rwanda at least cost through effective planning, investment, contracting, supply, operations and maintenance.



# EWSA's Main Responsibilities

*The 30 responsibilities in the EWSA law are summarised as follows:*

- 1.Utility services:** Electricity, water and sanitation utility services, including management, supply, provision, sale and extension of services
- 2.Investment and Planning facilitation:** Promotion and exploitation of energy resources; planning of investment and proposals for new infrastructure in energy, water and sanitation, and facilitation of private investment and operation in electricity, gas, water & sanitation works
- 3.Studies:** Research, studies and analyses of energy and water supply and demand; Research and development and pilot projects; To ensure stability of Lake Kivu as a result of methane extraction;
- 4.Capacity building and training;** Information dissemination for consumers and general data on energy and water production, distribution and use
- 5.Policy and Regulatory support:** Participation in the development of national policy related to energy, water and sanitation; and in establishing policies and standards for energy and water efficiency & conservation

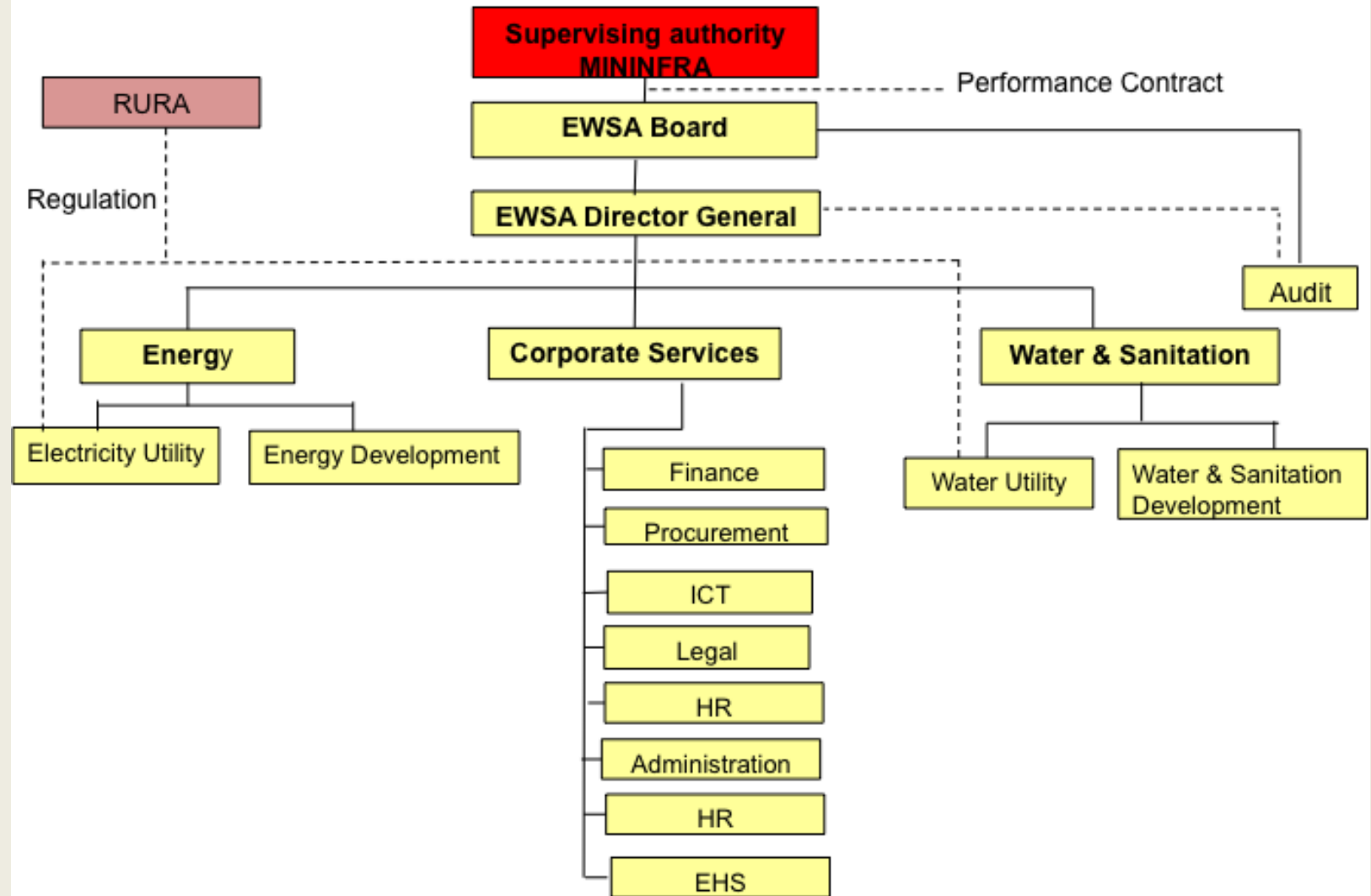


# Current Status (Governance & Structure)

- Circa 2,000 staff - Electricity Utility operations with circa 971 staff
- 7 board members (5 from GOR – MINECOFIN, MININFRA, RDB, PM OFFICE, MIFOTRA, 2 from the Rwanda Private Sector)
- 3 departments – energy, water and corporate services
- Energy department responsible for energy development & utility operations
- Energy Development Directorate (comprised of 70 staff) responsible for developing, contracting, negotiating and monitoring energy projects.
- USD 192 million asset base



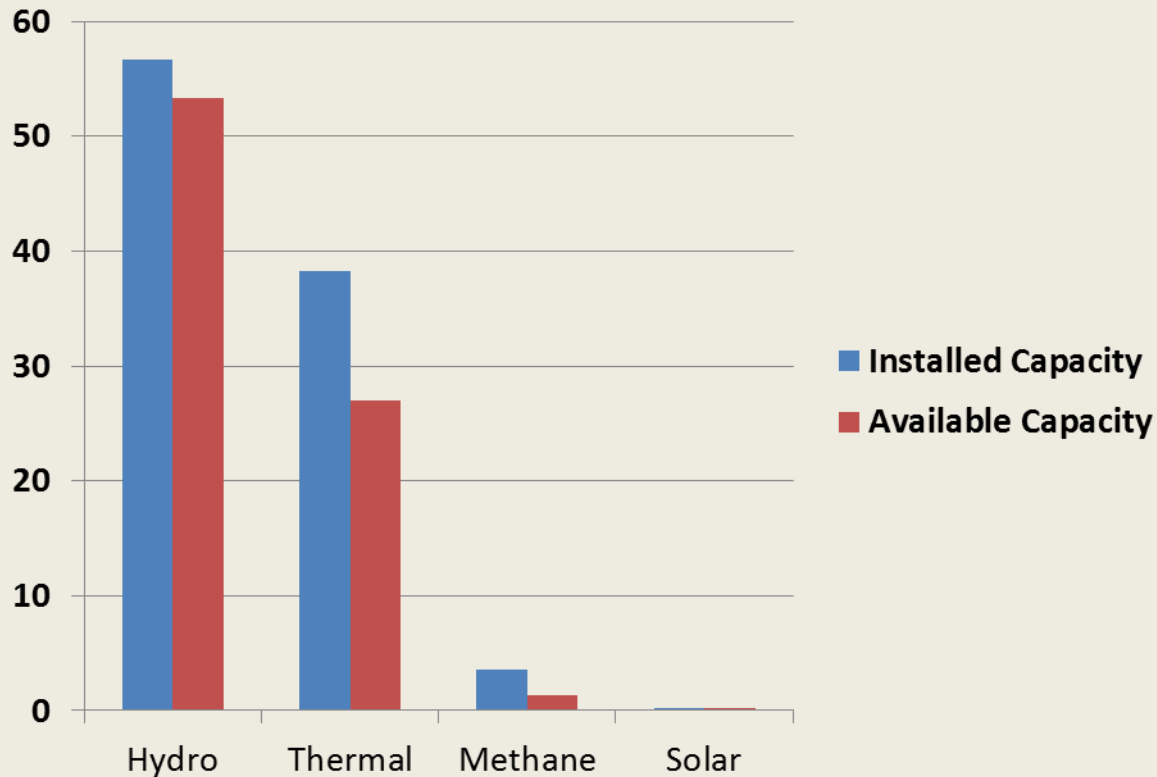
# EWSA Structure





# Current Status (operations)

- Installed On-Grid capacity of 100.5 MW and available capacity of 87.5 MW

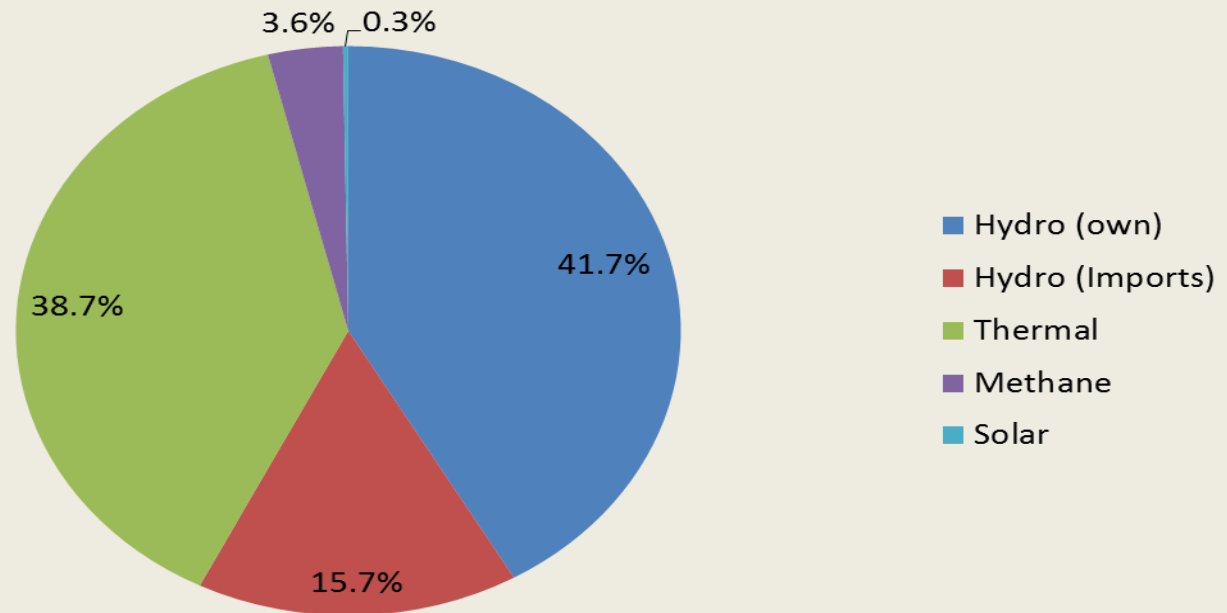




# Current Status (Cont'd)

15.7% installed capacity imported  
57.4% Hydro, 38.7% Thermal (needs to be replaced)

**Distribution of installed capacity by source**







# Current Status (cont'd)

- 260,000 customers
- Total utility annual turnover of USD 82m (79% or USD 65m electricity)
- 19.4% losses
- Grid audit to be completed by 30<sup>th</sup> April 2013 (Manitoba Hydro International)
- Time of Use Tariff proposed for adoption - in advanced stages of consideration
- 95% collection efficiency
- Ongoing strategic capacity building initiative effort to strengthen EWSA's contracting and negotiating capacity
- Distribution network plan, load forecasting, supply-demand/over-under capacity assessment, capacity building work by Sofreco to be completed by 30<sup>th</sup> March 2013
- Demand forecasted to be 641 MW in 2017 (*actualization study of electricity master plan-FICHTNER-Decon*)



# Current Status (cont'd)

- SCADA system in place for system and loan management and monitoring
- Pre-paid metering technology significantly improves EWSA cash flow
- Zero default by EWSA to fuel and power suppliers e.g. Aggreko *thermal* (10 MW), KP1 *methane gas* (3.6 MW)



# Key Regional comparisons

*(as at 30<sup>th</sup> June 2011)*

	Burundi	Kenya	Rwanda*	Tanzania	Uganda
Peak Demand (MW)	49	1,194	79	895	445
Technical & Distribution Losses	21.7%	16.2%	19.4%	21.9%	29.7%
Retail Tariff (USc/KWh)					
•Actual	8.19	14.01	18.24	8.65	11.22
•Required (unsubsidized)	8.54	14.01	25.62	14.58	25.14
New Retail Tariff (early 2012)	13.14	17.58	18.24	12.22	17.60
Customers	60,000	1,444,000	216,000	960,000	450,000
No. of new connections p.a.	4,800	231,000	56,000	111,000	56,000
Average no. of customers per employee	80	141	178	158	267



# Readiness for increased investment

## Perceived Challenges

1. Absence of REFIT (FIT)
2. Creditworthiness of EWSA
3. Regulatory independence
4. Negotiation & Contracting Capacity
5. Tariff not cost recovery

## Remedial Action taken

- REFIT for Hydro adopted by RURA in Feb. 2012
- Electricity accounts to be ring-fenced. SOGREAH contracted for strategic b/plan & financial modeling
- Escrow A/c option
- RURA in place since 2001
- SCBI, World Bank and others provide support. RFP for IPP advisor to be issued by 15<sup>th</sup> March. Model contracts e.g. standardized PPA's being prepared
- PPA's allow for an attractive Return on Investment (ROI)



# Readiness for increased investment (cont'd)

## Challenges identified

6. Clarity on competitive bidding for projects

## Remedial Action taken

- GOR open to competitive & unsolicited proposals (UP's). UP's to be assessed against technical performance & financial soundness by 31<sup>st</sup> Dec. Transaction Advisory firm in place by 30<sup>th</sup> May 2012



Thank you!

[ymuyange@ewsa.rw](mailto:ymuyange@ewsa.rw)

[yuwamahoro@ewsa.rw](mailto:yuwamahoro@ewsa.rw)