

# **Energy Efficiency (EE) Practices Presentation from ZIMBABWE and CITY OF HARARE**

**Energy Efficiency in Sub-Saharan African Cities  
SE4All and the Covenant of mayors in Africa  
Workshop – Nairobi, 26-27 October 2015**

# **Review of current EE strategies and policies (National level)**

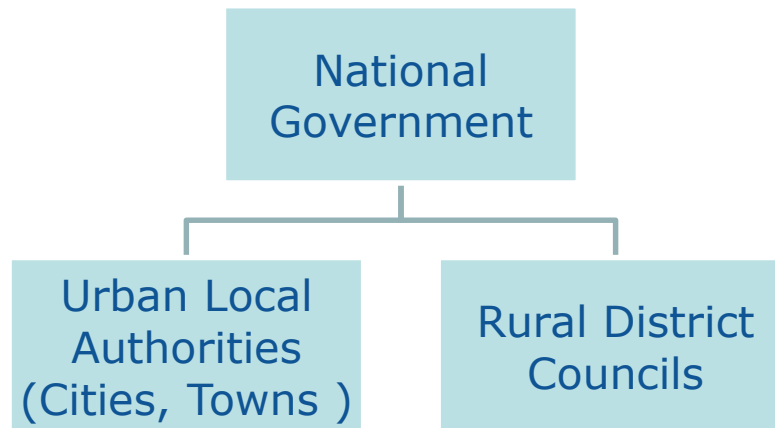
- **National Energy Policy of 2012**
- **Ministry of Energy and Power Development: Department of Energy Conservation and Renewable Energy; Zimbabwe Energy Regulation Authority(ZERA)**
- **Energy Efficiency Regulations: ZERA currently drafting..**
- **National Water Heating Project: Solar Water heating**
- **SE4All Action Agenda and Investment Prospectors**
- **Development of na Integrated Energy Resource Plan.**

# Institutions at National Level

- **Ministry of Energy and Power Development: overall responsibility for Policy direction**
- **ZERA: Regulating Authority**
- **ZESA: The Utility Responsible for Power Generation, Distribution and Retailing.**
- **REF: Rural energy access**
- **Universities and R&D institutes- Research and Development**

# Review of current energy efficiency strategies and policies (City level)

- *Institutional/administrative status of the cities is in the country*



- *National Government-Laws through Acts of Parliament, National Policies*
- *Cities- City By-laws, City Policies,*
- *City Elected officials (Mayor, Councilors),*
- *Administration - Team of Professionals headed by a Town Clerk*
- **City Departments:** *Department of Works, Corporate Services and Housing, Human Capital and Public Safety, Harare Water, Finance,*

# Review of current energy efficiency strategies and policies (City level)

- **Engineering Services Division (Department of Works)-  
Responsible for Energy Efficiency.**
- **Environmental Planning Section (Urban Planning  
Division) responsible for Environmental Management**
- **City of Harare is currently crafting its Energy  
Management Policy (Incl: broad energy objectives and  
targets for Energy Efficiency and Renewable Energy)**
- **Strategy and Energy Management Plan(10 year)**
- **Planned to be adopted by Council:**
  - Reduction in Energy Consumption by 50% by the year 2025.
  - 25% Renewable Energy Sources by the year 2025.

# Review of current energy efficiency strategies and policies (City level)

## **Quick Wins:**

**Main sectors targeted: Plants(treatment works, aggregates and tar plant), buildings, Public lighting, Traffic signals, Fuel, Waste management, Water heating**

## **Plants:**

**Energy audits, baseline surveys, setting of targets, PF correction schemes resuscitation, Soft-starters, EE rated equipment (replacements/lighting etc), Waste to Energy conversion at Waste treatment plants**

## **Street lighting:**

**LED's and solar street lighting, intelligent controls, electronic ballasts, etc**

# Participation - stakeholders

## ➤ **National Level**

- **Development partners eg UN, EU**
- **Consumer organisations**
- **Business Council/ Chamber of Mines**
- **Farmer organisations**
- **Equipment Manufacturers and Suppliers**
- **SAZ**

## ➤ **City Level**

- **Development partners: EU/ISRC**
- **Power Utility(ZETDC)**
- **Private Developers**
- **Ratepayers Associations**
- ***Lack of EE - finance mechanisms***

# Energy Efficiency initiatives (particularly at city level)

## Current Projects:

- Street lighting: 14 000 streetlights upgrade: 250W HPS to 100/90W LED ( solar powered) by December 2017. Targeted consumption saving 8 300 MWhrs (HPS to LED). Total Off Grid: 14 000MWhrs
- Buildings/Facilities
- (lighting upgrade, thermal insulation upgrades & , Traffic lights,
- Plants: Treatment Plants Upgrades, EE rated equipment, pump efficiencies, PF correction, soft starters, etc
- 30 MW Solar Power Plant( Morton Jeffrey Waterworks)

## Best Practices:

- Understanding the service delivery objectives. Designs, Technology scanning/forecasting
- Funding: Consider JV's, PPP's etc

## Specific Issues to be addressed:

- Capacity Building (policy & strategy formulation, energy auditing)
- Funding models
- Model EE projects (residential and commercial)