



**African Energy Commission**



# **2015 InterEnerStat Meeting**

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**AFREC**

**Elements of the African Energy Efficiency Indicators Database**

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# Mandate and Legal Framework

## **AFREC Convention:**

**Article (4) (Functions of AFREC), Point (b) states that AFREC shall: « Design, create and set up an energy continental data base and facilitate rapid dissemination of information and exchange of information among Member States, as well as among the Regional Economic Communities in Africa ».**

# Creation of the African Energy Efficiency Database



The creation of a comprehensive “African Energy Information System and Database” (AEIS) was designed to be completed in consecutive phases of which:

**Phase 1:** Creation of the African Energy Statistics Database, and

**Phase 2:** Creation of the African Energy Efficiency Indicators Database.

**Phase 1** was commenced and published by the end of 2012 in hard copy and on-line.

**Phase 2** is scheduled to be completed by the end of 2017.

# Challenges for the Creation of Energy Efficiency Database for Africa



- **Collecting energy efficiency data is very difficult task, even in the developed countries, and often requires the intervention of governments through regulations and legislations to force energy users, especially industry and private sector, to behave properly in revealing the real data of the energy consumption and savings.**
- **Most countries in Africa are lacking basic understanding of energy efficiency indicators, Capacity building and practices and therefore, except of few countries, there is lack of notable attempts in documenting these indicators among other countries.**
- **A continental energy efficiency database for a place like Africa requires harmonization of definitions of energy products and flows, energy transformation indicators, unified thermal efficiencies (input/output balances), and sectoral and sub-sectoral definitions, (InterEnerStat!).**

# Objectives

- The main objective of the project at this stage is to **create new group of National Focal Points** to collect EE Indicators data and provide them training and guidance (IEA).
- **Building capacities and understanding** of the National Focal Points in energy efficiency concepts, indicators and data collection methodologies and questionnaires through training and applied exercises;
- **Capitalizing on the knowledge base acquired by the international institutions** in energy efficiency data collection and validation including the evaluation of the impact of energy efficiency policies and measures on the actual energy efficiency performance in national economies, industries and other economic activities and various consumer groups

# Project Description



- Develop the concept of EE indicators and data in Africa and define the targeted energy sectors for data collection (**AFREC in consultation with IEA and other partners**).
- Create new group of National Focal Points for indicators data collection (**Underway by Energy Ministers**).
- Provide reasonable training and capacity building to the National Focal Points as a prerequisite for energy efficiency data collection (**4<sup>th</sup> AFREC Seminar 19-22 October, Addis Ababa, and beyond**).
- Start modest with simple questionnaire and adopt a gradual complexity as the competencies of the National Focal Points improve (**Further regional training in small groups**).
- Start with only one sector (**Residential in 2015 & 16 and expand to other sectors afterward**).
- Prepare modest questionnaire for EE data collection in the **residential sector**.

# Residential Energy Efficiency Indicators Data for Africa



**The questionnaire for residential sector should collect at least the following data for each of electricity, biomass, gas, kerosene:**

- **Average consumption of households per capita.**
- **Average consumption of electrified households.**
- **Households consumption for electrical appliances and lighting.**
- **Per capita installed capacity of solar water heaters.**
- **CO<sub>2</sub> emissions of residential sector per household.**

## Role of the IEA



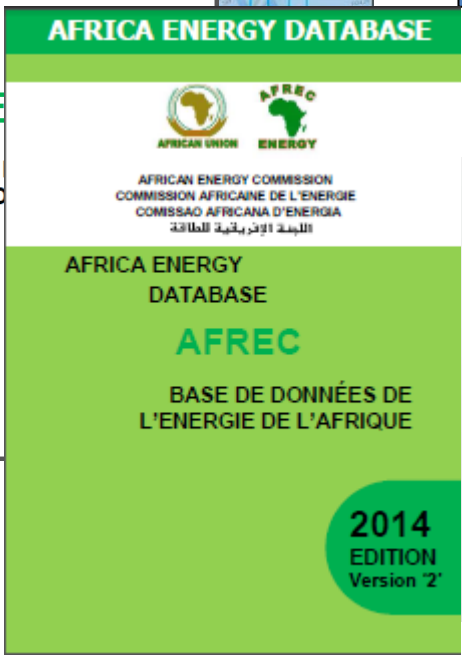
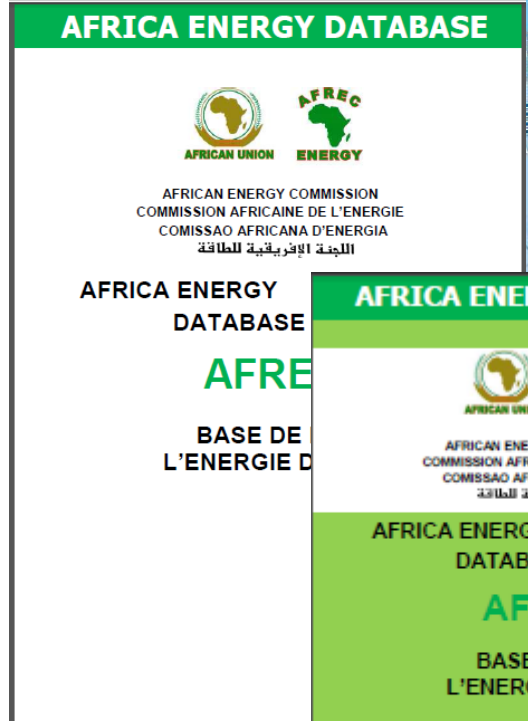
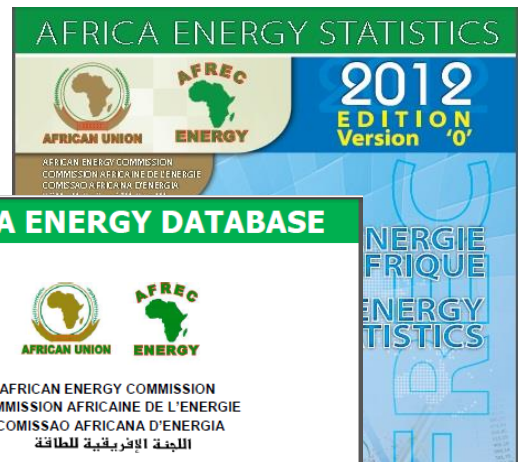
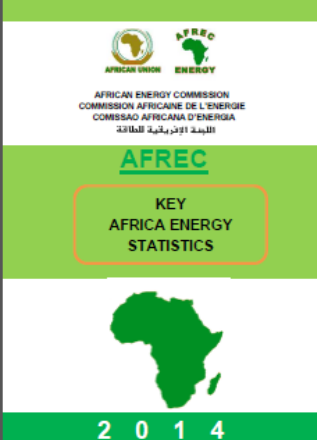
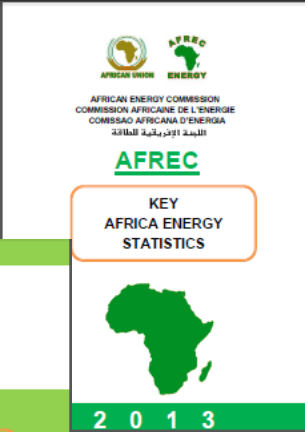
**The International Energy Agency (IEA) is the main technical advisor for the AFREC on energy statistics. Thus, its contribution may includes the following:**

- **Review and update the data collection questionnaires.**
- **Provide training, orientation and guidance to the National Focal Points in energy statistics, energy databases and construction of national energy balances.**
- **Improve the internal capacity of AFREC through the IEA's training weeks and sessions.**
- **Promote the AFREC's database project and connect it with international energy database providers and developers.**

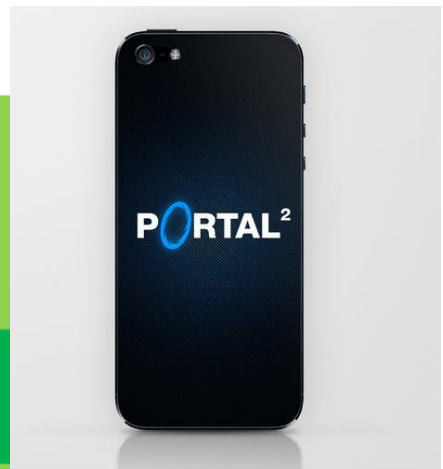
**Thank you IEA!!!**



# Energy Data Dissemination Tools



[www.afrec-energy.org](http://www.afrec-energy.org)



Downloaded: <http://www.afrec-energy.org/En/statistic.html>

# Conclusion



- **Once the African Energy Information System and Database (AEIS) is established and went into operation, it has to stay operational and updated indefinitely!!**
- **A comprehensive Energy Information System and Database for Africa requires a collective effort of a networking partnership among various African Member States, RECs, RPPs, specialized institutions and international organization.**
- **Appointment of national focal points and adequate funding are essential for the management and development of the system database.**
- **Appropriate short and long-term training sessions are essential to improve and maintain high quality standards for the African energy experts.**



**Thank you for your kind attention**



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