AFREC’s “African Energy Information System & Database” (AEIS)

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AGENDA

- Mandate
- Objectives
- Dimensions
- Structure
- Data Collection
- Dissemination
- Validation
- Training & Capacity Building
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 around Africa ». 
Why an African Energy Information System and Database?

- Reliable energy data and information is crucial for setting energy policies and designing good strategies for investment and decision making;

- The quality of energy databanks and information systems available in Africa is disappointing and below the level of international standards;

- Lack of professional database developers and providers, poor interest, shortage of expertise and absence of perception about importance of energy databases;

- Institutional weaknesses and lack of coordination among different parties in this area;

- Shortage of funding for a sustained training and capacity building and shortage of skilled people with relevant statistical and analytical qualifications to create and correlate the data at national level.
World Energy Information Systems and Databases

- EIA
- OLADE
- OECD, IEA
- AEIS
- OPEC
- OAPEC
- APEC

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Objectives

Elaborate, construct, operate and manage a continental energy database for all types of energy forms produced and consumed by all African countries as well as to facilitate rapid transfer and exchange of information among them and disseminate the final data to various end-users around Africa and fulfill the overall objectives of the African Union in this area.

Provide reliable data and information for the implementation of PIDA and SE4ALL projects.
Dimensions of the AFREC’s Program for Energy Information System & Databases

- African Energy Database (AED)
- African Energy-related Socioeconomic Database (AESD)
- African Energy Information System and Database (AEIS)
- African Energy Efficiency Database (AEED)
- African Energy Infrastructure Database (AEID)
- African Renewable Energy Database (ARED)

Supply, Demand, Energy Balance: (oil, gas, coal, biomass, nuclear, electricity)

Power plants, refineries, pipelines,
Dimensions of the AFREC’s Renewable Energy Resources Statistics Databases
Structure of the AEIS Operation

Data Collection
- AFREC Questionnaire
- Secondary Data Sources

Data Validation
- Time Series Consistency
- Comparison & Checking

Data Dissemination
- Internal Database
- Spreading Tools

Capacity Building
- Regional Training
- Periodic Seminars
National Focal Points in the African Countries
Data Collection Questionnaire Format

AFREC Energy Reporting Format

Country: Select A Country

Year: Select A Year

Instructions
Background Information
Comments
Exit

Oil
Gas
Coal
Biomass
Electricity

Unit Converter
Extended Balance
Balance

AFREC Energy Information Forum Questionnaires
Architecture of the AED

- African institutions
- United Nations system
- International Institutions of Energy
- Regional and International Financial Institutions
- Regional Economic Communities
- Power Pools

Collection and consolidation at national level

Source of Energy
- Coal
- Natural Gas
- Hydropower
- Hydrocarbons
- Biomass
- Renewable energy
- Nuclear
- Etc.

Consolidation at Regional level

Consolidation at International level

- Departments of Energy and their subdivisions
- Other Ministries (Agriculture, ...)
- Producers of statistics
- Energy Agencies
- Regulators

Consumption demand
- industries
- trade
- individual
- public service

Operation
- Transformation
- Transport
- Distribution
Sources of African Energy Data & Information

Primary Sources:
- Member States
- African Specialized Institutions

Secondary Sources:
- International Energy Database Providers (IEA, EIA, WB, UN, OPEC, IAEA, etc.)

Specialized African Renewable Energy Institutions:
1. Solar Energy: Member States
2. Wind Resources: Member States
3. Geothermal Energy: Member States (Kenya: GDC)
4. Bio-Energy & Bio-Fuels: Member States
5. Hydropower Resources: Member States
Energy Data Dissemination Tools

AFRICA ENERGY STATISTICS

AFRICA ENERGY STATISTICS

2012 EDITION Version ‘0’

AFRICA ENERGY STATISTICS

www.afrec-energy.org
Capacity Building: Regional & International Seminars

1st Seminar: Algiers, Algeria: April 2003

2nd Seminar: Algiers, Algeria: May 2005

3rd Seminar: Cairo, Egypt October 2011

Addis Ababa, Ethiopia September 2015

4th Seminar: Aaddis Ababa September 2015
Regional Training Workshops

2012: (1) Douala, Cameroon April 2012; (2) Johannesburg, South Africa May 2012; (3) Dakar, Senegal September 2012; (4) Addis Ababa, Ethiopia September 2012

2013: (1) Brazzaville, September 2013; (2) Accra, Ghana, November 2013; (3) Johannesburg, SA, October 2013; (4) Addis Ababa, Ethiopia, December 2013
Training Stats

- Total Trainees in 2012: 83
- Total Trainers of Trainers in 2012: 29
- Total Trainees in 2013: 72
- Total Trainers of Trainers in 2013: 38
- Total Trainees in 2014: 46
- In-house Training: 3
Outcome

Annual release of updated edition of the African Energy Database in different formats:

- Main report which contains tables of national energy balances for national, regional and continental levels, glossary and and unit conversion charts.
- Simplified pocket-size pamphlets as quick references
- Socioeconomic and environmental indicators.
- Data analysis.
- Energy products supply and demand projections.
- Glossary and definitions.
- Unit conversion tables.
Conclusions

- 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 competent National Focal Points and provision of adequate funding are essential for the management and development of the database system.
Thank you for your kind attention

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