Eastern Africa Power Pool

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Definition of Power Pool

A framework for pooling energy resources and promoting power exchanges between utilities in a given geographic area based on an integrated master plan and pre-established rules.
Objectives of Power Pools

- Secure their respective power supply
- Provide mutual assistance in case of failure in their respective power systems
- Reduce power supply costs
- Provide social, economic and environmental benefits
- Strengthen the relationship between countries
Establishment of Eastern Africa Power Pool (EAPP)

- On February 24, 2005 Seven African countries (Congo, Egypt, Ethiopia, Kenya, Rwanda, Burundi, Sudan) signed a MOU.

- The MOU covers issues such as members, obligations, organizational structure, resources, arbitration and enforcement.

- Later on Tanzania, Djibouti and Uganda Joined the EAPP
Eastern Africa Power Pool (EAPP)

Northern Part: Egypt, Sudan, Djibouti, Ethiopia

Southern Part: Kenya, Uganda, Rwanda, Burundi, DRC, Tanzania
EAPP Objectives

• Secure power supply for countries of the Region
• Facilitate in the long term the development of an electricity market
• Optimize the usage of natural energy resources (Oil & gas- Solar- Hydro-Geothermal)
• Increase the population access rate to power
• Reduce electricity cost
• Create a conducive environment for investments
Key Issues & Difficulties

• Infrastructure
  – decayed roads,
  – slow telecommunication,
  – unsafe airports,
  – lack of oil/gas pipelines

• Strain on network & high losses

• Relatively low electrification

• Missing or not updated data
Sponsoring Agencies

• United Nations Economic Commission for Africa (ECA)
• The African Union (AU)
• The Union of Producers, Transporters and Distributors of Electric Power in Africa (UPDEA)
• Common Market for Eastern and Southern Africa (COMESA).
Main Projects & Financiers

• Regional Master Plan & Grid Code Study funded by African Union (NEPAD – IPF)
• Technical Assistance and Capacity Building funded by European Union (EU)
• Technical Assistance of Operation Coordination Centre & Independent Regulatory Body (Norwegian Government)
Main Projects & Consultants

• Consortium of SNC Lavalin (Canada) and Parsons Brinckerhoff (UK) for Regional Master Plan & Grid Code Study
• Mercados - Energy Market International for Technical Assistance and Capacity Building Study promoting efficient and sustainable energy markets, designing effective regulation
Regional Master Plan & Grid Code Study (Lavalin)

Objectives

• Identify power generation and interconnection projects
• Prepare a master plan
• Develop a common Grid Code
• Strengthen the Institutional capacity for EAPP
Study Implementation

Completed activities

• Draft of Inception report has been reviewed
• Generation and future options have all been collected and reviewed
• Final Inception report has been submitted
Study Implementation

Activities in Progress

• Preparation of interim report
• Preparation of final master plan report
• Training
• The study shall be completed on January 2011
Contents of final Inception Report

• Opportunities for cross-border interconnections in the region.
• Updates on the proposed methodology for the load forecast and other main activities
• Proposed tables of contents for the Master Plan and Grid Code reports
• Proposed schedule for the home office and local training sessions
Expected Power Exchange

- Countries with export potentials are Uganda, Ethiopia, Rwanda, and DRC.
- Egypt present and future will have 60% of total EAPP generation.
- It is expected that Egypt will not be a net importer or exporter of electricity or fuel (gas).
- Djibouti, Kenya, Burundi, Sudan, and Tanzania are assumed to import.
- Most countries would benefit from reserve sharing.
Technical Assistance and Capacity Building Study (Mercados)

Objectives

• Strengthen the capability of the EAPP to improve the integration of the electricity markets

• Assess the existing and future regional power market and build a database for strategic planning.

• Establish a long term Strategy for increasing cross border trading, and a business plan

• Introduce regulations and agreements for cross border trading in the region
Mercados Study Implementation

Completed activities

- Draft design of regional power market
- Final Inception report has been submitted
- The second progress report has been presented
Mercados Study Implementation

Activities in Progress

• Completion of the power market assessment and trade flows study
• Preparation of a strategic road map to 2025 and a 5 year business plan
• Preparation of a MOU and treaty to support cross border treaty
The challenges to be Faced

• Infrastructure bonds:
  – decayed roads,
  – slow telecommunication,
  – unsafe airports and railway services.

• Regulations of cross border treaty

• Lack of funding

• Political Instability
Conclusion

The East African region has no shortage of resources to generate electricity and has an environment that is attractive for financiers to help the region sustainable development.