

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 .