



**COMMON MARKET FOR EASTERN
AND SOUTHERN AFRICA**

COMESA ENERGY PROGRAMME

AUGUST 2009

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THE COMESA ENERGY PROGRAMME

1. INTRODUCTION

The Common Market for Eastern and Southern Africa (COMESA) is a regional economic grouping comprising 19 member States which have agreed to promote regional integration through trade development and to develop their natural and human resources for the mutual benefit of all their people. The member states are Burundi, Comoros, Congo DR, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe. COMESA has a total land area of about 12 million square kilometres, spanning Northern, Eastern and Southern Africa and has a population of over 389 million. Moreover, the region is endowed with diverse natural resources which include arable land, minerals, petroleum, water, etc, and it is also a big market.

Trade and investment are the primary instruments for promoting and deepening economic integration in COMESA. In order to facilitate trade and investment, the development of appropriate physical infrastructure and facilitation in energy, transport and communications are key issues.

The COMESA Free Trade Area (FTA) was launched in October, 2000 when nine of the member States eliminated their tariffs on COMESA originating products. Currently there are thirteen member states participating in the FTA namely Burundi, Comoros, Djibouti, Egypt, Kenya, Libya, Madagascar, Malawi, Mauritius Rwanda, Sudan, Zambia and Zimbabwe.

Trade has grown significantly averaging 20% per year of intra-FTA trade, while overall intra-COMESA trade has also been boosted by increased intra-FTA trade with a growth rate of about 7% per year.

The next stages for COMESA are the formation of a Customs Union, a Monetary Union and the establishment of a Common Market. The customs union was launched in June 2009.

Energy plays a critical role in the development process, as a domestic necessity but also as a factor of production whose cost directly affects prices of other goods and services and the competitiveness of enterprises. The cost of energy is one of the critical factors that affect the success of COMESA's Free Trade Area and Common Investment Area, since it determines, to a great extent, COMESA's competitiveness in its regional and extra-regional markets.

2. BRIEF ON GENERAL COMESA ENERGY STATUS

There is a huge hydro potential in the COMESA region, which is not yet exploited, along the Congo, Nile and Zambezi river basins. For instance, the hydro potential of Democratic Republic of Congo (DRC) is estimated to be around 100,000 mega watts,

whereas, the potential for Ethiopia and Zambia is estimated to be around 45,000 mega watts and 6,000 mega watts respectively.

The total installed capacity of the COMESA region at present is around 38,000 megawatts. Almost 69 % of the installed capacity is thermal, whereas, 30 % of it is hydro. The deficit in electricity supply, currently estimated at 20% of demand, is expected to be exacerbated in the forthcoming years to 46% in 2011 as demand grows with respect to the present installed capacity.

The analysis of upstream side show that, the COMESA region's proven crude reserves are over 50 billion barrels, representing about 44 % of Africa and about 4 % of the world crude reserves. The region produces about 3 million barrels per day (bb/d) of oil whereas it consumes slightly above 1.23 million bb/d.

The COMESA region has also considerable potential of renewable energy resources such as biomass (in terms of fuel-wood and charcoal), bio-fuels, solar, wind, geothermal, small hydropower, biogas, waste to energy, etc.

Some Uranium deposits have also been identified in the COMESA region such as Malawi, Congo DR and Zambia.

Despite the abundant energy resources that the COMESA region is endowed with, energy is a scarce and expensive resource, because the region's modern energy resources are still underdeveloped including their infrastructure such as electricity transmission and distribution networks, petroleum and gas pipelines.

However, the cost of energy is one of the critical factors that facilitate the realization of COMESA's Free Trade Area and Common Investment Area, since it determines, to some extent, COMESA's competitiveness in its regional and extra-regional markets. The high cost of energy in most COMESA member States (for instance the average electricity cost in the region is around US\$ 0.09 per kilowatt hour) would therefore, be an impediment to COMESA regional integration agenda.

3. THE COMESA ENERGY PROGRAMME

COMESA has recently embarked on an Energy Programme whose main thrust is to promote regional cooperation in energy development, trade and capacity building.

The programme is intended to harmonize energy policy and regulatory frameworks through preparation of model policy and regulatory guidelines for the energy; and also establishment of a Regional Association of Energy Regulators for Eastern and Southern Africa.

The programme is also intended to facilitate trade in energy services through development of harmonized standards. Moreover, the programme is intended to develop regional energy infrastructure through development of medium to long-term energy master plan. The main areas in power are in generation and transmission to facilitate electric power trade and cross-border trade in electricity in order to narrow down the high discrepancies in the prices of electricity in various countries in the region.

3.1 ENERGY POLICY AND REGULATORY HARMONIZATION

Energy policy and regulatory guidelines could be among these tools that materialize energy reliability at an affordable cost by providing a set of plans and frameworks that regulate energy supply and demand.

3.1.1 The COMESA Model Energy Policy Framework

The COMESA Council of Ministers at its Meeting held in Lusaka in November, 2007 adopted the COMESA Model Energy Policy Framework which was developed by the COMESA Secretariat.

The main thrust of the COMESA Model Energy Policy Framework is to provide the COMESA member States with harmonized guidelines that would facilitate energy policy harmonization in the COMESA region in efforts to improve efficiency and increased investment.

Specific objective of this Model Energy Policy Framework is to provide an outline of contents expected in National Energy Policy, which countries can then adopt and/or customize, therefore, harmonizing policies in the spirit of regional integration.

The main energy policy goal is to meet the energy needs, in an environmentally sustainable manner, through providing an adequate and reliable supply of energy at least cost; to support social and economic development and sustainable economic growth and also to improve the quality of life of the people.

Energy policy objectives of this model energy policy framework include improving the effectiveness and efficiency of the modern energy supply industries; improving the security and reliability of energy supply systems; increasing access to affordable and modern energy services as a contribution to poverty reduction; establishing the availability, potential and demand of the various energy resources; stimulating economic development; improving energy sector governance and administration; managing environmental, safety, and health impacts of energy production and utilization; and mitigating the impact of high energy prices on vulnerable consumers.

The COMESA Model Energy Policy Framework focuses on key issues in the energy sector; supply and demand; side policy objectives and policy instruments; and cross cutting issues.

This Model Energy Policy Framework is a flexible policy guideline which is expected to provide a framework for COMESA member States to customize their policies based on the country's specific socio-economic considerations and circumstances.

3.1.2 The Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA)

Energy regulators, regulate the energy supply in order to ensure that the existing and future energy needs are met in most reliable, efficient, cost effective and sustainable

manner. Therefore, establishing a pro-competitive regulatory framework that should eventually attract additional investment and develop modern energy resources including the infrastructure is crucial for the COMESA member States.

The Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA) was officially launched in March 16th, 2009 and came officially into existence by signing of its constitution by seven energy regulators from COMESA countries namely Ethiopia, Egypt, Kenya, Madagascar, Malawi, Rwanda and Sudan.

The main objectives of RAERESA fall into four broad categories, namely:

- i. capacity building and information sharing: to facilitate energy regulatory capacity building among Members at both a national a regional level through information sharing and skills training, however, countries that have not yet established their independent regulatory bodies could become Associate Members, which would be supported in the setting up of their regulatory bodies;
- ii. facilitation of energy supply policy, legislation and regulations: to enhance the increasing integration of energy systems and energy trade in the COMESA region and beyond through the facilitation of harmonised energy policy, legislation and regulation for cross-border trading;
- iii. inter regional cooperation: to develop programmes that facilitate inter regional cooperation; and
- iv. regional energy regulatory co-operation: to deliberate and make recommendations on issues affecting the economic efficiency of energy interconnections and energy trade among Members on issues that fall outside national jurisdiction.

The functions of RAERESA to achieve the objectives indicated above shall include the following:

- i. monitor and evaluate energy regulatory practices among Members to determine regional needs;
- ii. develop, conduct and manage information and capacity building projects for national energy regulators;
- iii. promote and support the development of independent energy regulators in the COMESA countries where there are none;
- iv. prepare position papers;
- v. facilitate the co-ordination of energy trade and systems operations in conjunction with the power pools and national control centres;
- vi. promote the establishment of norms and standards; and

- vii. establish working relationships with other agencies that promote development and co-ordination of energy related matters.

3.1.3 INTEGRATED PLANNING STRATEGY IN THE DEVELOPMENT OF THE ENERGY RESOURCES AND A STRATEGIC POLICY ON THE DEVELOPMENT AND USE OF RENEWABLE ENERGY AND NUCLEAR

The draft integrated planning strategy in the development of the energy resources and a strategic policy on the development and use of renewable energy and nuclear has been prepared. The intention of the study is to develop a strategic framework for energy co-operation among COMESA member States through development of an integrated energy planning strategy.

The overall objective of the integrated planning strategy in the development of energy resources and a strategic policy on the development and use of renewable energy resources and nuclear is to contribute to a more reliable, cost effect and sustainable energy supply in the COMESA region, through joint utilization of energy resources including their infrastructure such as electricity transmission and distribution networks, petroleum and gas pipelines, etc, so that they can be able to deliver their services to consumers in an affordable cost and a reliable way.

This would definitely address the region's energy related supply side constraints through the exploitation of the advantages of economies of scale and scope and in turn, would contribute to increased productive competitiveness and economic growth for poverty reduction.

The specific objective is to assist the COMESA region achieve a higher level of strategic regional co-operation in the use and development of modern energy resources including their infrastructure so as to maximize energy gains in the short, medium and long terms.

3.2 FACILITATION OF TRADE IN ENERGY SERVICES

The overall objective of harmonized standards is to create a fully integrated and internationally competitive and unified region in which goods, services, capital and persons move freely. The principal route that has been chosen in order to realize this goal is economic integration through development of trade and investment.

The specific objective of harmonized energy standards is to facilitate trade in energy services, in particular, trade in petroleum products.

Given the urgent need for the development of standards for electrical energy sector, COMESA has circulated some 74 Standards covering this sector. These are mainly based on International Standards. The Standards will be considered by the Energy Regulatory Authorities in conjunction with the National Standards Bodies.

In the area of petroleum products, and in order to enhance trade in petroleum products, the Secretariat outsourced a consultant to develop harmonized standards for petroleum products specification. 60 draft harmonized standards have been proposed and will be taken into the stakeholders' consultation process.

3.3 DEVELOPMENT OF REGIONAL ENERGY INFRASTRUCTURE

It has been estimated that the actual demand for electricity in the COMESA exceeds the supply by more than 20%. Therefore, this energy deficit is considered to be one of the major problems that face the COMESA region nowadays. This trend would, most likely, continue in the future because the forecasted maximum demand for electric power in 2009 and 2011 will exceed the installed capacity in 2005 by 33% and 46% respectively.

Many factors contribute to COMESA's energy problem. They include, among others, the following:

- i. insufficient investment in the energy sector, in the sense that the region's commercial energy resources are still underdeveloped including their infrastructure such as electricity transmission and distribution networks, petroleum and gas pipelines, etc;
- ii. increased demand for economic growth; and
- iii. insufficient use of existing energy systems in the sense that the effective generation of electricity in the COMESA region is less than the installed capacity (which is around 38,000 mega watts) by more than 20 per cent due to drought, lack of maintenance and rehabilitation and also general system losses of electricity which include transmission, distributions are higher than average of 12 per cent, among others.

It is, therefore, imperative to develop the regional energy infrastructure in order to address the energy deficit of the COMESA region. Development of regional energy infrastructure entails that the compendium of priority energy projects be identified and an energy master plan be developed and adopted in order to facilitate the development of prioritization criteria to be used to rank the regional projects in the compendium of priority projects.

The estimated cost of energy projects which have been identified in the COMESA compendium of priority infrastructure projects (which includes energy) is about US\$ 15 billion.

Development and adoption of medium to long term energy master plan whose main thrust is to assist the COMESA region achieve establishment of a joint energy strategy and priority investment plan and to mobilize public and private capital for its implementation, would definitely facilitate the development of regional energy infrastructure.

The energy master plan will culminate in the preparation of energy demand forecast, in addition to, the identification of alternatives for future inter-connectors; electricity generation power plants; regional oil and gas pipeline projects; refineries and storage facilities; regional renewable energy projects; and energy conservation and efficiency projects. It will further culminate in the preparation of least cost energy expansion plan and criteria set up to identify the most appropriate funding mechanism for prioritized projects. It will also culminate in the identification of priority interconnection projects for

funding by the COMESA Infrastructure Fund and also the interested co-operating partners.

In response to the above, the COMESA Secretariat has developed a detailed draft Terms of Reference (TOR) for a regional energy master plan. Moreover, the Secretariat has been exerting efforts to mobilize resources from co-operating partners to assist in financing the study on development of the COMESA energy mater plan. In this respect, many potential donors were approached and it is hoped that an interest for financing be confirmed.

4. THE EASTERN AFRICA POWER POOL (EAPP)

The Eastern Africa Power Pool was adopted by Heads of State and Government at the 11th Summit of COMESA in Djibouti in November, 2006 as a specialized institution of COMESA for electrical power for Eastern Africa.

The overall objective is to facilitate regional integration and hence to realize sustainable growth and development.

However, specific objectives of EAAP include optimisation of the usage of energy resources available in the COMESA region, increase in the power supply of the region, reduction in electricity production cost and creation of an environment that is conducive for investment.

The role of EAPP-Permanent Secretariat, which is based in Addis Ababa, Ethiopia, in the facilitation of bilateral and multilateral interconnection projects in EAPP region includes the following:

- (i) facilitation and support the financing of studies and implementation of regional projects through joint Project Management Unit (PMU); and
- (ii) providing technical support in the implementation phase of regional projects through he joint Project Management Unit (PMU).