



**TERMS OF REFERENCE**

**FOR CONSULTANCY**  
**ON**

**ENCOURAGEMENT OF INVESTMENT AND UTILIZATION OF RENEWABLE ENERGY SOURCES**  
**IN THE COMESA REGION**

**Date: February 2013**

## **1. BACKGROUND**

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, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe. COMESA has an area of about 11.6 million square kilometres, spanning Northern, Eastern and Southern Africa and has a population of over 451 million (2010). 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 considered as 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 taken as key issues.

The COMESA Customs Union, which by definition incorporates a Free Trade Area, was launched in June 2009. The intra-COMESA trade reached a US\$ 17 billion mark in 2010.

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. Moreover, as the region's economy and trade continue to grow, energy will be critical element to support and sustain the achieved growth.

## **2. TREATY PROVISIONS**

Of direct application to the development of renewable energy in the COMESA Treaty, is paragraph 2 (b, c, d, and e), Article 106 of Chapter Thirteen, on scope of co-operation, which provides that "The Member States undertake to co-operate in the joint development and utilization of energy resources including hydro, fossil fuels and biomass and shall, in particular, co-operate in:

- a. creation of more favourable investment climate to encourage public and private investment in this sub-sector;
- b. encouragement of joint utilization of training and research utilities;
- c. exchange of information on energy systems and investment opportunities; and
- d. development of research programmes on renewable systems".

## **3. COMESA COUNCIL OF MINISTERS DECISIONS**

The COMESA Council of Ministers decided in its 30<sup>th</sup> meeting which was held in Lilongwe, Malawi that Member States should provide information on renewable energy in order to assist in the preparation of a COMESA programme for development of renewable energy.

## **4. 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 rivers in the Democratic Republic

of Congo (DRC) is estimated to be around 100,000 megawatts (MW), whereas, the potential for Ethiopia and Zambia is estimated to be around 45,000 MW and 6,000 MW respectively. The geothermal potential in the African rift valley is estimated at 14,000 MW. COMESA region has also considerable potential of renewable energy resources such as such as bioenergy, solar, wind, small hydropower, etc.

The total installed capacity of the COMESA region at present is around 52,000 megawatts (MW). Almost 69 % of the installed capacity is thermal, whereas, 30 % of it is hydro. 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. Some Uranium deposits have also been identified in the COMESA region such as Malawi, Congo DR and Zambia.

Moreover, the natural gas production in the COMESA region is about 2.5 trillion cubic feet and consumption of natural gas in COMESA region is around 1.6 trillion cubic. Total coal production in the COMESA region is about 4.7 Million tonnes. Total coal consumption of the COMESA region is about 6.0 million short tons.

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 and infrastructure such as electricity transmission and distribution networks, petroleum and gas pipelines are not adequate.

The high cost of energy in most COMESA member States (for instance the average electricity cost in the region is around US\$ 0.10 to 0.12 per kilowatt hour) could, therefore, be an impediment to COMESA regional economic growth and competitiveness in international trade.

In many COMESA countries, electrification rates are very low and the impediment to electrification is the cost of the transmission infrastructure from the point of electricity generation to remote villages. Renewable energy technologies are an opportunity to have small decentralised generation where small demand centres can have access to modern energy. This would, in turn facilitate the expansion of small businesses which would eventually lead to greater community benefits, in addition to the issue of carbon credit.

The region, being the least polluter in the world with fast untapped renewable energy potential, has the golden opportunity to leapfrog into the front ranks of the race into the green economy. Renewable energy has, therefore, the potential to bring virtually every citizen of COMESA into the modern ICT age which would vastly facilitate the improvement of the quality of life.

## **5. COMESA ENERGY AND CLIMATE CHANGE PROGRAMMES**

COMESA has an on-going energy development programme since 2007 and has been implementing a climate change adaptation and mitigation programme. Both programmes address environment and natural resources issues, upon which human lives and livelihoods depend. The intention of addressing environment and natural resources is to ensure that they are managed in ways that sustain productivity growth a healthy population, as well as the intrinsic spiritual and cultural value of the environment.

The quest for adequate, quality, cost-effective, clean and affordable supply of energy stimulates most countries to think over the role that renewable energy should play to diversify their energy matrices. Indeed, renewable energy would play a vital role in the energy mix and would be one of the solutions

of the energy challenges that many countries are facing. In addition, renewable energy has little or no green house gas emissions associated with it, making it an excellent source of carbon credits that bring additional income.

Some of these renewable sources of energy that would play a vital role in the energy mix in the near future and which would be among the solutions of the energy challenges that many countries are facing, is the option of bioenergy; solar; wind; and pico, micro, mini and small hydro; etc. The African continent has vast untapped potential for all these forms of renewable energy.

It is expected that the COMESA energy programme which includes also renewable energy activities would contribute to the reduction of global warming by promoting the sustainable use of renewable energy technologies. One of the objectives of this programme is, therefore, to reduce, mitigate, and/or sequester emissions of greenhouse gasses.

It has been established that renewable energy can also contribute to food security and energy security and energy substitution and complementarily. Therefore, all possibilities should be explored so that renewable energy initiatives are mainstreamed in COMESA's energy and climate change programmes. Moreover, renewable energy should be supported by policy and regulations, R & D and technological development.

On the other hand, trade in energy in the region has excellent potential to increase supply and reliability of electrical power. It also enables member states with little clean energy sources to tap into the vast hydro-potential of the region.

Demand side interventions such as energy conservation can contribute greatly to the region's energy supplies. It has been estimated that up to 30% of the energy generated is wasted. Stopping this waste would be equivalent to bringing on stream more that 10,000 megawatts (MW) of generating capacity in the COMESA region.

## **5.1 Baseline Renewable Energy Database and the Road Map**

The main objective of baseline renewable energy database and the road map was to facilitate the dissemination and commercialization of renewable energy technologies in the COMESA region and in particular the following:

- a. identification of barriers of renewable energy in the COMESA region;
- b. preparation of recommendations on how to overcome barriers of renewable energy; and
- c. facilitate the diversification of the energy mix of the COMESA region through promotion of environmentally sound and efficient energy production technologies and practices that reduce energy production inputs and reduce levels of pollution.

The report identified some priority areas for action such as institutional capacity building, renewable energy policy framework development, enhanced renewable energy trade, renewable energy investment facility and information exchange mechanisms. It is, therefore, envisaged that those priority actions would be incorporated the COMESA programme for the development of renewable energy.

The report also identified a number of renewable energy projects for potential investors. These include projects related to different renewable energy technologies such as hydro, solar, wind, geothermal and bioenergy.

## **6. THE REGIONAL ASSOCIATION OF ENERGY REGULATORS FOR EASTERN AND SOUTHERN AFRICA (RAERESA)**

It is worth noting that the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA) was officially launched in March 2009. The COMESA Secretariat is acting as an Interim Secretariat of RAERESA.

The main objectives of (RAERESA) are:

- a. facilitate energy capacity-building among Member states at both a national and regional level through information sharing and skills training;
- b. enhance the increasing integration of energy systems and energy trade in the COMESA region and beyond through the facilitation of harmonized energy policy, legislation and regulations for cross-border trading focusing on terms and conditions for access to transmission capacity and cross-border tariffs; and
- c. 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.

RAERESA conducts its work through portfolio committees which include renewable energy, environment and energy efficiency, electricity, and oil and gas.

The work of RAERESA includes development of baseline energy database particularly on renewable energy, energy efficiency and environment to identify the gaps that can be bridged by the introduction of new clean energy technologies.

## **7. OBJECTIVES**

The objective of this consultancy is to advise on and come up with an investment strategy and incentives in order to promote investments and utilization of renewable energy sources in the COMESA region.

It is envisaged that the output of this proposed consultancy would contribute to the Global Climate Change (GCC) goal of reducing long-term emissions trends in the energy sector among countries in the region by transitioning them to low emission energy systems.

The specific objective of the consultancy is to increase investment in renewable energy sources and to spur their growth in efforts to facilitate the attainment of the following:

- a. to make the case for investment in renewable energy sources in the COMESA region, in particular, encouragement of private sector investment and participation;
- b. to facilitate trade in renewable energy technologies; and
- c. to promote the use of renewable energy technologies.

## **8. OUTLINE OF TASKS AND DELIVERABLES OF THE SERVICE**

The consultant is required to undertake the following:

- a. to advise on the encouragement of investment and utilization of renewable energy sources in the COMESA region through gathering information and producing a report which should also include, among others, the following:
  - a legal, institutional framework model for Public Private Partnership (PPP)
  - a model feed-in-tariff for the COMESA region
  - a model Power Purchase Agreement (PPA) specific to the different renewable energy technologies
  - a model framework for joint development of renewable energy by two or more COMESA countries where the location of the renewable energy resource such as; hydro power, wind, geothermal, solar, thermal, etc
- b. identify at least three projects from the report of the baseline renewable energy database and prepare a bankable renewable energy project proposal for financing; and
- c. present the report to the Portfolio Committee on Renewable Energy of RAERESA for review and discussion and also share it with other stakeholders and improve the report based on the comments of the stakeholders.

It is expected that the above should culminate in a report which should also include all the elements indicated above. This report on the encouragement of investment and utilization of renewable energy sources in the COMESA region should be discussed and validated by stakeholders.

The Consultant therefore, performs -but not limited- the following:

- a. undertake missions to some countries in order to compile information and initiate discussions with stakeholders;
- b. prepare an inception report, noting the data obtained and presenting the work plan and program (schedule) including a meeting to validate the Inception Report;
- c. present the report to stakeholders' committee meetings for review and discussion to be attended by renewable energy experts and improve the report based on the comments of the stakeholders;
- d. facilitate the organization and service the meeting of the Portfolio Committee on Renewable Energy of the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA) and the validation workshop; and
- e. provide technical support to the COMESA Secretariat in the Annual General Meeting (AGM) of RAERESA.

## **9. ORGANIZATION AND METHODOLOGY**

It is envisaged that the assignment will be led by a Consultant to be identified and contracted by the COMESA Secretariat for a period of 70 working days.

The Energy Officer at the COMESA Secretariat and the Chairperson of the Portfolio Committee on Renewable Energy of RAERESA shall supervise the work of the Consultant. Reports that are expected to be produced by the Consultant shall be reviewed and discussed by the stakeholders.

## **10. SCOPE OF THE WORK**

The Consultant's scope of work shall be within the following:

- a. the COMESA Vision and Mission;
- b. the COMESA Medium Term Strategic Plan (MTSP);
- c. the COMESA Energy Programme;
- d. the Climate Change Adaptation and Mitigation Programme;
- e. the COMESA Integrated Planning Strategy in the Development of Energy Resources and a Strategic Policy on the Development and Use of Renewable Energy Resources and Nuclear;
- f. the COMESA Model Energy Policy Framework;
- g. the Work Programme of the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA); and
- h. the COMESA report on the baseline renewable energy database and the road map.

## **11. MAIN ACTIVITIES**

Main activities of the encouragement of investment and utilization of renewable energy sources in the COMESA include the following:

- a. to draft and finalize detailed terms of reference for the encouragement of investment and utilization of renewable energy sources in the COMESA region;
- b. to procure a Consultant;
- c. to advise on promoting investments and utilization of renewable energy sources in the COMESA through production of a report; and
- d. to convene a technical stakeholders committee(s) meetings to review and discuss the report on the encouragement of investment and utilization of renewable energy sources in the COMESA.

## **12. INDICATORS**

Indicators would contain a number of policy reforms, regulations or administrative procedures passed or approved to enhance governance or facilitate private sector participation in competitive markets.

## **13. TIME FRAME**

The work will be for seventy working days to be spread over four months starting May – September 2013.

## **14. EXPERTISE REQUIRED**

The Consultant required for this assignment is expected to have appropriate qualifications and professional experience in the area of renewable energy with focus on renewable energy investment.

The minimum requirements for the Consultant who will undertake the assignment are as follows:

- a. an MSc in Science or Engineering, Economics, Development, law or any other related field with a bias towards renewable energy;
- b. at least ten years experience in the field of renewable energy;

- c. familiarity with energy issues relating to renewable energy; and
- d. good command of English or French.

## 15. REFERENCES

The Consultant shall make use of the following documents as key reference material among others:

- a. the COMESA Treaty;
- b. national documents on renewable energy of the COMESA Member States;
- c. report on Overview of the Energy Status in the COMESA Region and the Way Forward prepared by the COMESA Secretariat;
- d. the COMESA Integrated Planning Strategy in the Development of Energy Resources and a Strategic Policy on the Development and Use of Renewable Energy Resources and Nuclear;
- e. the COMESA Model Energy Policy Framework;
- f. the Work Programme of the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA);
- g. reports of the meetings of the COMESA Infrastructure Ministers responsible for Transport, Communications, Public Works and Energy;
- h. the COMESA Report on Baseline Renewable Energy Database and the Road Map and
- i. any other relevant documents from other sources.

## 16. PAYMENT TERMS AND CONDITIONS

In addition to the consultancy fees, COMESA will cover the travel, accommodation and Meals & incidentals during the consultancy period

## 17. SUBMISSION

1. Written applications should be submitted electronically to COMESA Procurement Unit at [procurement@comesa.int](mailto:procurement@comesa.int) before **Monday 22<sup>nd</sup> April, 2013 at 17:00 hours**.
2. Submissions should include the following:
  - i. Updated CVs of consultants including contacts:  
e-mail and telephone numbers
  - ii. Cover letter detailing their understanding of the task and highlighting experience and expertise in similar works;
  - iii. Copies of academic qualifications;
  - iv. A letter of financial submission.
3. **Only individual consultants with the required profile are encouraged to apply**