





## **African Union Development Agency (AUDA-NEPAD)**

## **REQUEST FOR EXPRESSION OF INTEREST (REOI)**

#### **CONSULTANCY SERVICES - FIRMS SELECTION**

# CONSULTANCY SERVICES TO CONDUCT REGIONAL STUDY ON THE FEASIBILITY OF BIOENERGY DEVELOPMENT IN THE UEMOA REGION

#### PROCUREMENT NUMBER: 44/NPCA/NRG/UEMOA/QCBS/2019

#### INTRODUCTION

The West African Economic and Monetary Union (UEMOA) currently has eight (08) Member States: Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo, with an area of 3,500,000 km² and a population of over 90 million inhabitants in 2017.

The geographical, political and economic space of UEMOA is confronted with a growing need for affordable, reliable and environmentally clean energy sources to address the chronic deficiency in the provision (production, transmission and distribution) of energy products and services in order to meet the needs of the economy while preserving the environment and promoting reforestation and biodiversity.

It is in this context that UEMOA adopted in December 2001, the Common Energy Policy (CEP), which has the following objectives: (i) guarantee the security of the Union's energy supplies; (ii) develop and ensure the optimal management of energy resources by systematically interconnecting electricity grids and building community facilities; (iii) promote renewable energies; (iv) promote energy efficiency; (v) develop and improve access to energy services for the Union's rural populations; (vi) contribute to the preservation of the environment.

The implementation of the CEP necessarily takes into account its interactions with the other common policies adopted at UEMOA level, namely, among others: the Union's Agricultural Policy (UAP), the Common Environmental Improvement Policy (CEIP) and the Common Industrial Policy (CIP).

The UAP, adopted in December 2001, makes a sustainable contribution to: meeting the food needs of the population, the economic and social development of Member States and poverty reduction. To this end, it aims to achieve food security by reducing food dependency and improving the functioning of agricultural commodity markets and improving the living conditions of agricultural producers by developing the rural economy and enhancing their income and social status.

The Common Environment Improvement Policy (CEIP) adopted in January 2008, aims to (i) reverse environmental hazards; and (iii) maintain biodiversity.

In order to achieve these objectives, the PCAE is implemented through four strategic axes, including the "Contribution to sustainable natural resource management for poverty alleviation and food insecurity reduction". To this end, the PCAE is part of a coherent whole with the Union's other common and sectoral policies.

As for the UEMOA's Common Industrial Policy (CIP), it is aimed in particular at (i) the emergence of efficient enterprises, including community enterprises, capable of satisfying domestic demand on competitive terms, facing international competition and promoting social

progress; (ii) the development of the agricultural, pastoral, fisheries and mining resources of the States and the Union; (iii) the intensification of intersectoral trade flows; (iv) the balanced economic development of the various regions of the Union; (v) the diversification and intensification of the Union's industrial fabric.

Adopted in December 1999, the CIP is the reference framework for formulating operational strategies for the diversification and integration of the Union's industrial fabric into the world economy. This is why, for the sustainable development of the UEMOA region, it aims to meet four structural challenges of the industrial fabric: diversification, densification, competitiveness and rationalization.

Economic growth in recent years has increased energy demand, both in the industrial sector and in rural areas. Delivering energy services is a critical component of the advancement of agriculture and agro-industry, and is the basis for broad and inclusive socio-economic growth and development. However, the requirements in terms of generation and access, cost, safety and reliability have also become more stringent.

The following challenges are noted:

- 43% of the African population have no access to electricity, and this percentage rises to 80% in rural areas. This has significant consequences for rural development, urban growth and social stability. According to the Rural Hub, every year more than 200,000 young people leave the countryside for the major cities of the UEMOA region in search of jobs, which leads to the phenomenon of rural exodus;
- the preponderance of traditional biomass in the energy balance (more than 80% of consumption), is based on overexploitation of natural forests, thus contributing to the establishment of a profound ecological imbalance despite reforestation efforts and the various sustainable forest management programmes developed by Member States;
- Women, the main users of firewood for cooking purposes, spend too much time collecting it, neglecting other activities related to maternal and child health or income generation. In addition, traditional cooking practices lead to respiratory diseases for women and children;
- hydrocarbon supplies to most Member States, mainly imported petroleum products, account for a large proportion of energy consumption and accentuate the balance of payments deficit of the UEMOA Member States. The price level of petroleum products is considered high due to objective constraints such as the absence of rent, the small size of the systems (linked to the size of the market) limiting the possibilities of exploiting economies of scale or the use of certain advanced and more efficient technologies. The high cost of hydrocarbons is detrimental to the growth and competitiveness of Member States' industries. Petroleum products account on average for 20 to 35% of intermediate consumption;
- the cost factor penalises the rural communities in particular, depriving more than 70% of the population of the Union of direct access to primary health care and the improvement of living conditions in general. Rural electrification is mainly hampered by the deficiency of conventional power plants, transmission losses, high transmission and distribution infrastructure costs, leading to the need for alternative renewable sources of energy;
- at the environmental level, considerable damage is caused by deforestation and subsequent erosion from the removal of vegetation for fuel wood, reduced productivity of the land, biodiversity loss, degradation of the water catchments leading to reduced water availability from the water bodies etc.. This has also led to reduced economic and livelihood opportunities and increased vulnerability to shocks for the populations that depend directly on the natural resources for their livelihood. Greenhouse gas (GHG) emissions dominated by wood fuels (fuelwood, charcoal) account for more than 40% of emissions, according to the various national communications.

The need to invest in modern bioenergy on the African continent is obvious. For more than two thirds (2/3) of the population of the UEMOA region, the main energy resource remains firewood. Hence, the problem of deforestation, the disappearance of vegetation cover and finally that of soil degradation, which in turn compromises agricultural production and food self-sufficiency, is becoming ever more acute.

Therefore, the bioenergy sector if well managed, can contribute to the solution to these problems in terms of diversification of energy sources. A transformation of traditional biomass into modern bioenergy, mainly to improve rural population access to energy, can trigger agricultural productivity and rural transformation and address environmental degradation.

Although it is obvious that some challenges exist in the development of modern bioenergy, overcoming those challenges will support agriculture development as a demand pull for increased productivity of food and fiber crops, of pasture availability, timber and forest products. Furthermore, an improved access to modern bioenergy products and services can be a component of the renewable energy mix and will impact on increasing agriculture, livestock, forestry and non-agricultural sector productivities in rural and peri-urban areas.

The UEMOA Commission in partnership with the United Nations Foundation and the Rural Hub, had elaborated a study in 2008 on the Sustainable Development of Bioenergy in Member countries. This feasibility study intends to pursue that effort, through identification of concrete paths for implementing projects related to bioenergy development in Member States.

In this context, as part of the implementation of the Regional Energy Development Programme's (REDP) Renewable and Alternative Energy Project, the UEMOA has established contacts with the NEPAD Planning and Coordination Agency to launch an initiative for the development of bio-energy in West Africa. This feasibility study is the first phase of a project that includes also a roundtable consultation for mobilising resources to implement specific bioenergy interventions based on bankable projects resulting from this feasibility study.

The interest of the African Union Development Agency- NEPAD (AUDA-NEPAD) in this partnership with UEMOA is to contribute to the implementation of the Agenda 2063 continental framework through the Program for Infrastructure Development in Africa and through the Comprehensive Africa Agriculture Development Program which are two priority frameworks under which a number of programs and projects are operating at the African Union Development Agency. Among the value additions of the AUDA-NEPAD involvement in this project, are the quality control of the consultancy work, the partnership with international universities and institutions and the uptake of the outcomes of the feasibility study to promote bioenergy development in other regions of the continent, hence promoting bioenergy at the level of a PIDA project feeding into the renewal energy mix at the continental level.

Following two (02) meetings of the ad hoc Technical Committee between the Energy Directorate of UEMOA Commission and the Program Directorate of the NEPAD Agency which has become in 2019 the African Union Development Agency (AUDA-NEPAD), a roadmap for the Bioenergy Initiative was developed and adopted. In order to implement this roadmap, a Framework Agreement on Cooperation and Partnership between UEMOA and the AUDA-NEPAD Agency was signed in October 2016. Also, an Executing Agency Agreement on Bioenergy, backed by this Agreement, was signed on 03 August 2018.

The roadmap, which forms an integral part of the Convention, provides for the conduct of a regional feasibility study for bioenergy production in the UEMOA region.

## **OBJECTIVES**

## **General objective**

The overall objective of this feasibility study is to contribute to the development of renewable energy through bioenergy development with socio-economic growth and environmental

benefits in an inclusive and sustainable manner, through the elaboration of bankable projects to be presented at a roundtable consultation for resource mobilisation.

# Specific objectives

The specific objectives of the feasibility study are to:

- a) inform about the most appropriate business models to be undertaken in the area of bioenergy development, all along its value chain, in terms of viability, sustainability; profitability(cost-benefit) and inclusiveness (meeting the needs of a majority of the population, in particular those currently using traditional biomass); hence meeting the replicability and up-scalability criteria;
- b) identify development axes related to creating positive synergies between bioenergy (including electricity cogeneration), agricultural productivity, reforestation and food security;
- c) Define the conditions for the valorisation and development of bioenergy production units (including bioethanol, biodiesel and biogas) through the promotion of technology transfer:
- d) present a limited number of case scenarios, showing the costs benefits of the various options for future investment;
- e) identify implications of bioenergy development for smallholder farmers and the support needed to achieve food security and energy security through bioenergy in a synergistic manner;
- f) identify the policy and regulatory barriers to the production and efficient use of bioenergy and solutions to address them in the UEMOA/West Africa region;
- g) draw up bankable projects and business plans from the most promising options, to promote the implementation of integrated energy projects. This will contribute to filling the energy access gap of rural and peri-urban populations in the West Africa region, and draw lessons for other African regions using PIDA projects;

The feasibility study will consider 5 UEMOA countries located in various agro-ecological zones, for example: Cote-d'Ivoire, Guinee-Bissau, Niger, Mali and Senegal.

#### **SCOPE OF THE ASSIGNMENT**

## **Duties and Responsibilities of the Consulting Firm**

- A mapping of available feedstock resources and their potential (cost and volume/yield) compared to the needs for bioenergy capacity generation (calibrated to the demand for bioenergy products);
- An analysis of existing and potential demand development for bioenergy products and services;
- A mapping of existing and potential bioenergy conversion technologies and mechanisms for boosting supply;
- A economic, social, financial and environmental impact analysis of the different options based on using the most promising feedstocks; and
- An analysis of the most viable business models to be promoted, up scaled and replicated in UEMOA member states.

#### **EXPECTED OUTPUTS:**

The Consulting Firm is expected to deliver the following outputs:

- a. The inception report: (delivered 3 weeks after awards of contract). The inception report should revise/update the workplan and methodology proposed based on inputs and amendments received from the Technical Review Committee.
- b. The progress report: (delivered 12 weeks after award of contract) after the mission has been carried out in the Member States;
- c. The draft report (20 weeks after award of contract); and

d. The final report (4 weeks after the validation workshop), taking into account the observations and amendments resulting from the holding of the Regional Validation Workshop.

The African Union Development Agency (AUDA-NEPAD) now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

Interested firms must provide information indicating that they are qualified and experienced to perform the services:

- 1. An Official signed Letter from an authorized official, expressing interest of the firm to participate in the Consultancy;
- 2. General profile and background of the firm which should elaborate the following:
  - a. Core Business of the firms
  - b. Names of authorized representatives of the firms (Power of Attorney).
  - c. In the cases of Consortiums/Partnerships/Associations shall be required to submit Joint venture Agreements/Joint Association letters stating the lead firm.
  - d. Commercial Registration and Tax Registration Certificates of the firms attaching Registrations and Tax certificates documents;
- 3. Experience of the Firm in handling consultancy services of a similar nature; and
- 4. Availability of Professional Key Staff with Suitable Qualifications and experience in the field of assignment. The Key Experts must have a very good command of written and spoken French;

**Reporting and Time Schedules:** The duration of assignment is expected to be six (6) months. The Consultant will report directly to the Principal Programme Officer: Food Security Analyst.

Consultants may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications. Firms from African Union Members States and/or joint ventures will have an added advantage.

A Consultant will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the AU Procurement Guidelines. This is an Expression of Interest (EOI) only; submission of Financial Proposals is not applicable at this stage.

NEPAD Agency reserves the right to verify any information provided by prospective entities/individuals and false information will lead to disqualification. The NEPAD Agency reserves the right to cancel or reject any or all EOIs without stating any reason.

Expressions of interest must be delivered to the address below by the 22<sup>nd</sup> October 2019 by 14:30 hours (South African Time) and should be clearly marked as "CONSULTANCY SERVICES TO CONDUCT REGIONAL STUDY ON THE FEASIBILITY OF BIOENERGY DEVELOPMENT IN THE UEMOA REGION REF: 44/NPCA/NRG/UEMOA/QCBS/2019".

EOIs can also be sent by email, addressed to the address below. Interested Consultants may also obtain further information at the address below during office hours (08:00 - 17:00 South Africa time):

The Chairperson, Internal Procurement Committee (IPC)

African Union Development Agency (AUDA-NEPAD) 230, 15th Road, P. O. Box 218 Midrand, 1685 Johannesburg, South Africa

Email: bathom@nepad.org, and procurement@nepad.org

Attention of: Procurement Division