



INDIVIDUAL CONSULTANT PROCUREMENT NOTICE

26TH June 2018

TITLE OF CONSULTANT: Individual Consultant (IC) to Develop Renewable Energy Feed-In Tariff (REFIT)

COUNTRY: BOTSWANA

DESCRIPTION OF ASSIGNMENT: Develop Renewable Energy Feed-In Tariff (REFIT) for Botswana

PROJECT NAME: Promoting the Production and Utilisation of Biogas from Agro-Waste in South Eastern Botswana

PROJECT NUMBER: 00101976

DURATION: Consultant to suggest but not more than 2 months

REPORT TO: Technical Reference Group, Project Manager

Proposals with reference should be submitted in a sealed envelope clearly labelled, ***“Individual Consultant to Develop Renewable Energy Feed-In Tariff (REFIT)”***

Should be submitted at the following address no later than **16th July 2018 at 12:00pm (Botswana Time)**

to:

The Resident Representative

United Nations Development Programme
P.O. Box 54
Gaborone

or by email to: procurement.bw@undp.org

Any request for clarification must be sent in writing, or by standard electronic communication to the address or e-mailed to enquiries.bw@undp.org UNDP Botswana will respond in writing or by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of the inquiry to all prospective facilitators.

NOTE: Consultancy firms/companies interested in applying for this assignment are free to do so provided they submit a CV of only one qualified consultant and present its bid in a manner that would allow for evaluation of the bid in accordance with the evaluation criteria specified in these solicitation documents. That is, the experience required is that of the individual whose CV would have been submitted by the company rather than that of the company. Further, if the submitted bid wins, the ensuing contract will be between the UNDP and the company/firm, not the individual.

1.0 BACKGROUND

The Government of Botswana in collaboration with the United Nations Development Programme (UNDP) are implementing a project titled “Promoting production and utilization of Biogas from Agro-waste in South-Eastern Botswana (Biogas Project)”. This follows the realization that waste has not been taken as a resource in the country and this is inefficient as waste could be re-used. The reuse of waste to generate energy is an opportunity that Botswana must tap into for future use. Several waste streams are available at several agro-industrial facilities which can be utilized for generation of energy. Some of the agro-waste for consideration in bio-gas production include chicken manure, cow dung and goat/sheep droppings. Despite this immense potential presented by the abundance of livestock manure, agricultural/animal waste and other forms of biomass in the country, generation of energy from this waste remains a challenge.

The Biogas Project seeks to facilitate low-carbon investments and public-private partnerships in the production and utilization of biogas from agro-waste in the districts of South-eastern Botswana. It has been realized that there are no suitable demonstration projects for technology penetration as the current use of biogas in Botswana is limited to small-scale applications and there is no institutional biogas plant operating at either an abattoir or a landfill. Also, there is insufficient knowledge among various stakeholders (Government, private companies, farmers, communities, women, consumers) about the benefits of biogas and the available technologies. The project therefore, will assist Government of Botswana in addressing these challenges through three project components:

- Institutional strengthening and capacity development
- Facilitation and establishment of biogas plants
- Setting up of utilization and knowledge platforms.

Botswana having ratified the United Nations Framework on Climate Change Convention (UNFCCC) has the obligation to promote production of green energy and reduce on the Green

House Gases (GHGs) emissions. Though Botswana is a minor emitter of GHGs, the country as other countries is negatively impacted by climate change, efforts should be made to reduce on the emissions. The outcomes of the project will include the implementation of effective waste-management policies and guidelines with operational regulations; capacity to design and develop biogas projects in South-Eastern Botswana; first best practice public-private partnership established; reduction in greenhouse gas emissions (direct and indirect) of 1.65 million total carbon dioxide emissions (tCO₂e); and increased incomes using small-scale biogas and bio-fertilizer, especially for women.

In light of the above, UNDP and partners in the Project are seeking the services of a Private Renewable Energy Feed-In Tariff (REFIT) Consultant. The consultant will be responsible for developing the guidelines to be used for feeding electricity generated from biowaste into the Botswana national grid. The guidelines will include determination of suitable tariffs to be used by Independent Power Producers (IPPs) in the biowaste-energy sector. The consultant will build relevant capacity on REFIT strategies, international standards and appropriate guidelines among stakeholders through workshops and tailor-made training programmes; and support the programme management staff, where applicable, on REFIT related issues.

1.1 COORDINATION IN IMPLEMENTATION OF THE BIOGAS PROJECT

A team of experts responsible for the overall implementation of this Project has been set up and is based at the Botswana Institute for Technology, Research and Innovation (BITRI) office. The Botswana Energy Regulatory Authority (BERA) together with Department of Energy (DoE) under the Ministry of Ministry of Mineral Resources, Green Technology and Energy Security as the authorities responsible for energy regulation and management, shall be the lead government entities. The Project Steering Committee, a committee made up of government officials, private sector, Non-Governmental Organisations and the academia will strategically guide the project and make decisions. The Project Advisory Committee made up of technical officers from government, private sector, Non-Governmental Organisations and the academia will give technical advice to the project during implementation. The

Consultant will periodically report to both of these committees for direction and oversight support.

Under the overall coordination of BITRI, the Expert will work closely with the Project Management Unit to deliver the results of the assignment.

1.2 OBJECTIVES OF THE ASSIGNMENT

1. To provide expert advice and recommendations on REFIT for renewable energy;
2. To recommend and develop models/options of how recommendation could be implemented specifically in medium to large scale digesters.
3. To identify the capacity needs and undertake training to address the needs including the model developed
4. To develop the technical assessment guidelines for biogas.

2.0 SCOPE OF WORK AND RESPONSIBILITIES

The REFIT Consultant will be responsible for providing technical backstopping to the Biogas Project. He/she will play a leading role in the development of guidelines and tariffs for feeding in of biowaste energy to the national grid in the south-eastern Botswana; prepare detailed options/models of how the results of the study could be implemented especially when operating medium- and large-scale biogas digesters. Conduct training workshops on the developed REFIT guidelines and training on developed models.

The REFIT Consultant will undertake the following;

- i. With technical support and relevant guidance from the Project team, develop the REFIT/ guidelines for biogas energy sector in Botswana;
- ii. Review of international REFIT practices and available national studies/literature in order to propose reasonable REFITs that are implementable;
- iii. Review of Botswana legislation regarding Independent Power Producers (IPPs), REFIT and Power Purchase Agreements (PPAs) and recommend better options for implementation;
- iv. Develop a set of operational guidelines/requirements of any medium -large scale biogas plants to be considered for refit into the grid;

- v. Determine the requirements that must be fulfilled in order for the electricity from the plant to be fed into the grid;
- vi. Plan detailed activities and determine roles of different stakeholders in the process of REFIT implementation;
- vii. Review grid emission factor and provide tool for annually updating emission factor of the national electricity grid based on the relevant Clean Development Mechanism (CDM) tool
- viii. Recommend levels of gas emissions/standards that should be adhered to.
- ix. Build relevant capacity on REFIT issues among stakeholders such as BPC, BERA, DoE and medium scale digester owners.
- x. Develop an action plan of how REFIT can be implemented and the conditions needed for implementation
- xi. Recommend where Botswana can benchmark on REFIT issues after inception

3.0 EXPECTED OUTPUTS AND DELIVERABLES

The following results shall be delivered:

- a. Inception report with a detailed methodology and work plan for REFIT Consultant
- b. Draft REFIT guidelines for biogas energy implementation in Botswana transformational process for adoption of biogas use;
- c. Final REFIT guidelines
- d. Developed training plan for Stakeholders and capacity building report for relevant stakeholders;

4.0 QUALIFICATIONS, COMPETENCIES AND REQUIREMENTS

a) EDUCATION:

Master's Degree, or above, in Electrical, Renewable Energy Engineering, Energy Economics, or a closely related field, with equivalent relevant work experience in renewable energy with a focus on REFIT and net metering.

b) COMPETENCIES:

- Strong analytical, writing and communication skills.
- Ability to prepare publications, reports and presentations.
- Ability to work with a multidisciplinary and multicultural team.
- Strong motivation and ability to work and deliver under short deadlines.
- Focus on impact and result for the client and ability to respond positively to critical feedback.
- Ability to work independently with little or no supervision.
- Familiarity with government processes is strongly desired.

c) EXPERIENCE:

- At least 5- 10 years of senior level experience, preferably in private sector business as a project lead engineer/scientist for renewable energy
- Demonstrate experience in undertaking similar assignments.
- Experience in conducting feed in tariff and net-metering studies.
- Exposure to biogas production and utilization for electricity generation is desirable.
- Experience in training on renewable energy and energy tariff concepts
- In-depth knowledge of Private business sector with potential for partnership in renewable energy/biogas production.
- Immense technical knowledge of international best practice on REFIT.
- Knowledge of the Botswana draft Energy Policy is desirable.
- Experience in dealing with international and national experts and institutions.
- Sound understanding of key software packages (MS Office)
- Fluency in written and spoken English

5.0 PROJECT DURATION

The REFIT Consultant will determine a reasonable assignment duration from a detailed timeline. The time period should not exceed 2 months and would need to be agreed upon at inception.

6.0 DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

Interested individual consultants must submit the following documents/information to demonstrate their suitability for the assignment:

a) Technical Proposal:

- i. Explain why they are the most suitable for the work
- ii. Demonstrate understanding of REFIT issues internationally, and in the context of Botswana.
- iii. Provide a methodology on how they will approach and conduct the work.
- iv. Provide a suitable timeline proposed for undertaking the assignment.
- v. Personal CV including experience in similar projects and at least 3 referees with their contacts.

b) Financial Proposal

The financial proposal shall specify a total lump sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables. Payments are based upon output, i.e. upon delivery of the services specified in the TOR.

In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount (including professional fees, travel, per diems, accommodation, and number of anticipated working days).

7.0 TRAVEL

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the Expert/Individual Consultant wish to travel on a higher class he/she should do so using their own resources. In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

For this assignment, should the consultant be based outside Botswana, most of the work will be done remotely. Most of the communication will be done via email and/or skype. The consultant will only be required to travel to the duty station for:

1. Field data collection
2. Training of stakeholders
3. Presentation of final reports

8.0 EVALUATION

Only those candidates who obtained at least 70% in each of the steps of the technical evaluation process will be considered for financial proposal evaluation.

- Stage 1: Preliminary evaluation of the proposals will be based on yes/no response as per the table below. If the response is 'no' for any of the 3 criteria, the consultant will be disqualified from further evaluation.
- Stage 2: Technical capability of the Consultant to deliver the required consultancy outputs evaluated on a scale of 0-100 points wherein the qualifying mark is 70%. The criteria to be used are shown below:

Criteria	Weight	Max. Point
<u>Technical Evaluation</u>		
Criteria A: Qualifications (academic & technical, minimum Masters)	YES/NO	-
Criteria B: Adequate work and/or professional experience	YES/NO	-
Criteria C: Complete Consultancy package submitted (Technical and Financial Proposal)	YES/NO	-
Criteria D: Context – General understanding and Knowledge of biogas production for electricity generation. Demonstrable understanding of REFIT/net metering issues in the region and internationally	20	20

Criteria E: Relevant Professional /Work Experience - Demonstrate relevant work experience in REFIT	30	30
Criteria F: Technical Competence/ Methodology/Approach - clear methodology of how the assignment will be undertaken with reasonable timelessness. Reasonable indication of the competence on the subject matter (REFIT and/or Net-metering and ability to train) clear response to the terms of reference	30	10
Criteria G: Presentation & Packaging - good writing, interpretation and communication skills.	20	10

9.0 PAYMENT SCHEDULE PER MILESTONES

With the support of the Project Technical Reference Group, Project Steering Committee and BITRI, the project team will oversee the work of the consultant.

The payment schedule will be as follows:

Payment shall be made against deliverables following the suggested schedule as below:

- a. 30% upon APPROVAL of Draft REFIT guidelines for biogas energy implementation in Botswana transformational process for adoption of biogas use;
- b. 20% upon APPROVAL of training plan for Stakeholders and capacity building report for relevant stakeholders;
- c. 50% upon APPROVAL of Final REFIT guidelines