TERMS OF REFERENCE

Regional Off-Grid Electrification Project

Technical Assistance for Entrepreneurs Project refining and funds mobilization

REPUBLIC OF BENIN, REPUBLIC OF CABO VERDE, BURKINA FASO, CAMEROON, CENTRAL AFRICA REPUBLIC, REPUBLIC OF CHAD, REPUBLIC OF CÔTE D'IVOIRE, ISLAMIC REPUBLIC OF THE GAMBIA, REPUBLIC OF GHANA, REPUBLIC OF GUINEA, GUINEA-BISSAU, REPUBLIC OF LIBERIA, REPUBLIC OF MALI, ISLAMIC REPUBLIC OF MAURITANIA, REPUBLIC OF NIGER, NIGERIA, REPUBLIC OF SENEGAL, REPUBLIC OF SIERRA LEONE AND REPUBLIC OF TOGO

Context

Around 50 percent of population in the broader West African region including Sahel still lives on less than US$2/day[1]. Although there is some contrast between countries such as Liberia, Guinea-Bissau and Central African Republic where over 65 percent of population lives below US$1.90/day compared to Mauritania with 11 percent – the general trend is grim with over 70 percent of this region's population living below US$3.10/day. This region is also home to around 33 percent of the continent's population with around 17 percent of the land area. The region accounted for 28 percent of Africa's GDP in 2015.

Countries in the broader western African region including the Sahel face interrelated challenges of energy access, energy security and climate change mitigation[2] simultaneously. Electricity shortages in urban areas and lack of access to modern, affordable and reliable energy services in rural areas are interrelated with a variety of economic, social, environmental and political problems. The electricity systems in the region face challenges due to the growing gap between predicted demand, existing supply capacities and limited capital to invest. Less than 40 percent of the population in the Sahel and broader western African region has access to electricity. Significant energy access inequalities exist between urban and rural areas. Electrification rate of public institutions like schools and health centers also remain very low.

Energy is considered a key factor in achieving sustainable development and poverty reduction in the region. Most client governments, donor governments and international organizations have recognized the importance of integrating renewable energy into development policies to promote sustainable development. Under the Multi-Tier Framework (MTF)[3] of measuring energy access

[1] The World Bank defines extreme poverty as living on less than US$1.25 per day, and moderate poverty as less than $2 a day

[2] Source: ECOWAS program on access to sustainable electricity services (EPASES) 2015-2020 in rural and peri-urban areas

[3] Multi-Tier Framework for Measuring Energy Access (MTF) redefines energy access from the traditional binary count to a multi-dimensional definition as "the ability to avail energy that is adequate, available when needed, reliable, of good quality, convenient, affordable, legal, healthy and safe for all required energy services". That is, having an electricity connection does not necessarily mean having access to electricity under

general solar home systems can meet the Tier 1 to 3 level of energy access, which is the typical consumption pattern of households in Sub-Saharan Africa. Specially designed PV systems for commercial and institutional use can provide higher level of access. Off-grid solar meets consumers' energy needs more readily and represents an important first step on the energy access ladder.

Several broader West African countries including the Sahel countries are already tackling the issue of off-grid electrification to some degree in a wide variety of approaches such as concessions, franchising, Rural Electrification Agencies (REAs), Rural Electrification Funds (REFs), fee for service approaches, leasing, etc. On one hand countries like Senegal and Mali are example countries that have adopted private concessions to scale up mini-grids in rural areas. On the other hand, countries such as Nigeria and Ghana have achieved good results for rural electrification based on a government investment approach. There are advantages and disadvantages to each approach, and each may be better suited to one country or another depending on the institutional and legal situation of the country concerned. There are also a number of successful rural electrification programs in the region, such as the Ghana Electrification Scheme (2006-2020), or the initiatives of AMADER in Mali and ASER in Senegal. Several donors are interested in working in the region and are carrying out and planning several initiatives.

Aside from the approach used by each country, there is also a difference in the type of technique used. There are three main types of rural electrification:

- Grid extension: the electrification of rural areas using extension of an existing national grid. This type is usually the preferred option for the electrification of large villages/town
- Mini grids: it's similar to a utility but smaller and independent from the national grid. It provides electricity to a group of households, business, etc.… in the same agglomeration. It requires a set of policies and regulations (Tariff, license, acquisition land…).
- Standalone systems which is referred to as off grid under ROGEP. It is a system that provide electricity to one single consumer. Its market depends on the affordability and willingness of the consumers and attractiveness. It may also need some regulatory support, but that could be on quality products and government policy support to consumers to make the products affordable.

The Sustainable Energy for All (SE4ALL) Action Agenda is supported in the broader western African region including the Sahel through ECOWAS. To provide universal access to electricity by 2030, ECOWAS has adopted an ECOWAS Renewable Energy Policy (EREP). The EREP was conceived to respond to the severe energy crisis in the member countries by exploring the vast renewable energy generation potential that exists in the region through the participation of private sector. This Policy was adopted by the 43rd Ordinary Session of the ECOWAS Authority of Heads of State and Government, which was held in Abuja, Nigeria, from 17 to 18 July, 2013. The policy also aims to assist the ECOWAS member states to develop appropriate regulatory frameworks for the promotion of renewable energy technologies and services, thus reinforcing regional integration in the renewable energy sector. ECREEE has also assisted Sahel states such as Mauritania and Chad in activities related to energy access. Furthermore, with the support of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), ECOWAS member states already developed national renewable energy

the new definition, which also takes into account other aspects, as for example reliability and affordability. Energy access is measured in the tiered-spectrum, from Tier 0 (no access) to Tier 5 (the highest level of access)

action plans, SE4ALL Action Agendas and investment prospectus policies and strategies.

In this context ECREEE, with the support of the World Bank, is launching a Regional Off-grid Electrification Project (ROGEP) focused on enhancing shared capacity, institutions and knowledge, and to jointly increase electricity access to households, businesses and communities using modern off-grid electrification technologies in project countries.

- The program aims to complement the multiple existing initiatives.
- The technologies that will be supported by the program are pico solar (lanterns, chargers, solar home systems, etc.) and standalone solar systems, to electrify public facilities such as health centers, schools, police offices, etc. including small business and solar water pumps.
- The countries covered will be all 15 members of ECOWAS plus Cameroon, Central Africa Republic, Chad, and Mauritania.

ECREEE has been successfully running the ECOWAS Renewable Energy Entrepreneurship Support Facility, since 2013, whose objectives are:

- To provide mentorship and technical support to existing ECOWAS based entrepreneurs to help them scale up their business and/or refine their solar energy (photovoltaic and thermal) proposals to bankable levels for possible funding by financial institutions;
- To support proof of concept by establishing viability of innovative ideas from entrepreneurs; and
- To assist Renewable Energy Entrepreneurs in strengthening their business and identify new business opportunities in their respective countries and in the region.

In February 2017, the 3rd call for applications was launched whereby ECOWAS-based renewable energy entrepreneurs could apply for technical and advisory assistance which would support them in scaling up their businesses and/or refining their project proposals. Following the evaluation of the applications, 9 projects were selected for project refining and 50 enterprises were selected to participate in a series of trainings to improve their technical and managerial skills.

In September 2017, the 50 trained entrepreneurs submitted another round of project proposals for review and refinement, following which 10 proposals were selected to receive additional support from the facility.

The selection process followed in 2017 has identified a total of 19 proposals, from local entrepreneurs, interested to develop their project proposal idea (state of the proposal for the most part) into full business proposals. These proposal will benefit from the ECOWAS Renewable Energy Entrepreneurship Support Facility.

The following yearly calls will not only include ECOWAS based entrepreneurs but it will also include renewable energy entrepreneurs from Mauritania, Cameroun, Chad and Central Africa Republic.

The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), under the Regional Off-Grid Electrification Project (ROGEP) and in the framework of the ECOWAS

Renewable Energy (RE) Entrepreneurship Support Facility, **is seeking a consultancy firm to refine 19 project proposals received from ECOWAS-based Solar PV entrepreneurs to bring them to a stage ready to be presented to financial institutions.** These projects are from 9 different states: Benin, Ghana, Guinea, Guinea Bissau, Liberia, Niger, Nigeria, Sierra Leone and Togo.

ECREEE plans to strengthen this initiative based on the experience of this phase and will expand this facility to all 19 ROGEP countries in its subsequent calls for proposals.

Objective and Scope of Work

The overall objective of this consultancy assignment is for the consultant to assist the selected entrepreneurs in refining their project documents and to facilitate their interaction with the commercial banks, impact investors, debt funds, lease funds, and/or any other financial institutions for funding.

The consultant will support the 19 entrepreneurs to produce improved and refined investment ready project documents with at least the following information:

- A clearly defined project purpose (including objectives, expected outcomes/outputs, market potential and how it will be addressed etc.);
- Market potential assessment and target group of the proposed project;
- Project timeline and implementation plan;
- Technical aspects: Technologies proposed, suppliers of technologies, pricing and lifetime expectancy of products, including product guarantees, etc.;
- Financial aspects: detailed projects cost (delineate costs to be met by the funding source and those provided by other parties; detailed in all aspects), projected cash flow statements, estimated returns on investment and payback periods, revenue collection and details of innovative business models to be implemented;
- Development of the most suitable business model taking all relevant consideration into account such as customers buying power, etc.;
- Social, environmental and gender issues;
- Business planning and operating model;
- Project implementation team and accompanying skills;
- Monitoring and Evaluation (a plan for determining the degree to which objectives are met and methods are followed).

Once the above has been completed, the firm will facilitate the interaction with the financial institutions for funding.

Finally, the firm shall develop a procedure for an annual business plan competition in order to ensure that the most qualified entrepreneurs benefit from the project refinement support.

This will be accomplished through the completion of 4 tasks:

i) Assessment of the status of each project and developing a strategy for its refinement
ii) Engagement with each project developer to refine their project proposal
iii) Support and supervision of the write up of the final refined project.
iv) Provision of transaction advisory services
v) Development of a procedure for an annual business plan competition.

Work will be done in close collaboration with ECREEE and the World Bank Team.

The **Output** will be a written report [format to be provided at inception] detailing the results of tasks i), ii), iii), iv) and v). The report of task iii) should be accompanied with the final version of each refined project.

All data collected under this assignment will be formatted appropriately and delivered conjointly with the report.

All the reports will be presented in English; however, the refined project proposals will be in English, French or Portuguese depending on the national language of the country.

Detailed Scope

Task i) Assessment of the status of each project and developing a strategy for its refinement

1. *Assess status of each project by looking at, but not limited to, the following:*
    - The project purpose (including objectives, expected outcomes/outputs, market potential and how it will be addressed etc.);
    - Market potential assessment and target group of the proposed project;
    - Project timeline and implementation plan;
    - Technical aspects: Technologies proposed, suppliers of technologies, pricing and lifetime expectancy of products, including product guarantees, etc.;
    - Financial aspects: detailed projects cost (delineate costs to be met by the funding source and those provided by other parties; detailed in all aspects), projected cash flow statements, estimated returns on investment and payback periods, revenue collection and details of innovative business models to be implemented;
    - Development of the most suitable business model taking all relevant consideration into account such as customers buying power, etc.;
    - Social, environmental and gender issues;
    - Business planning and operating model;
    - Project implementation team and accompanying skills;
    - Monitoring and Evaluation (a plan for determining the degree to which objectives are met and methods are followed).

2. *Develop a strategy for the refinement of each of the project according to their status of development*

    The proposed strategy should include a time table that the entrepreneur will have to follow throughout the technical assistance.

Task ii) Engagement with each project developer to refine their project proposal

Once the strategy and methodology for the refinement of each project proposals has been developed, the consultant will work directly with the project developer and agree on the time line to achieve all the milestone before the final write up of the project proposal.
The interaction will be continuous via email, skype or other communication tools to ensure that the project developer is following the strategy developed and making clarifications when needed.

Task iii) Supporting and supervision of the write up of the final project.

Once all the milestones have been successfully achieved, the consultant will oversee the write up of each of the refined projects which should be a document ready to be presented to financial institutions.

Task iv) Provision of transaction advisory services

Once the entrepreneurs have their project refined, the firm will provide transaction advisory services to the entrepreneurs to assist them in raising the required funds for the project implementation. The firm will facilitate the interaction with finance institutions the entrepreneurs are already working with as well as promoting the engagement with other institutions in its own network.

Task v) Development of a procedure for an annual business plan competition

As part of the entrepreneurship support provided by ROGEP an annual Business plan competition is planned. The goal of this task is to develop a procedure for a business plan competition. The firm is therefore required, building on the ROGEP's entrepreneurship support concept note to be provided at the inception, to produce a detailed document including but not limited to:

- timeline for the competition
- template to be used by the entrepreneurs to submit their business plan
- evaluation criteria
- type and duration of the support.

Methodology

The detailed methodology for this assignment will be developed and included in the technical proposal submitted by the consultant.

Deliverables, timeline and payment schedule

The assignment will be carried out over a 22 weeks period. The table below shows expected deliverables, suggested timeline, and payment schedule (10% will be paid upon contract signature and the remaining as indicated in the table).

Deliverables	Timeline from contract effectiveness	Payment schedule
Inception report	Week 1	10%
Draft report Task 1	Week 5	10%
Draft report Task 2	Week 10	20%
Draft report Task 3	Week 13	20%
Draft report Task 4	Week 20	20%
Draft report Task 5	Week 20	10%
Final Report	Week 22	10%

Qualifications

The assignment requires an experienced consulting firm with vast knowledge of standalone solar business and technology, knowledge of African markets and experience in writing project documents and business plans.

The Firm must be capable of interacting and communicating effectively in French, English and Portuguese, depending on the countries of origin of the entrepreneurs.
Interested consultant firms should clearly demonstrate their experience in:

- Standalone solar business, markets and technology in Sub-Saharan African countries and West Africa in particular;
- Developing solar energy based project documents and business plans;
- Experience in support solar PV entrepreneurs in developing project and supporting them with transaction advisory services.

While the consultancy firm has the responsibility of proposing the team composition, the tasks in the assignment will require the involvement of at least:

- Team leader with extensive experience on standalone solar business and technology;
- 02 Experts in supporting entrepreneurs in West Africa in their standalone solar businesses.

Consultancy firms are strongly encouraged to tap into locally-based expertise, as appropriate, to contribute to enhancing local capacities and to facilitate the implementation of follow-up activities. The CVs of proposed staff should clearly demonstrate the relevant experience of each team member by task assigned.