

# **Regional Off-Grid Electrification Project (ROGEP)**

## **REGIONAL KNOWLEDGE SHARING AND TECHNICAL ASSISTANCE FOR INTEGRATED ELECTRIFICATION PLANNING AND STRATEGY IMPROVEMENT**

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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<sup>1</sup>. 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 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 in rural areas is also very low.

Paradoxically, this region is endowed with considerable renewable energy potential, which remains largely untapped to due to various markets barriers.

To remedy this situation, ECREEE, designed the Regional Off-grid Electrification Project (ROGEP) with the overall objective to increase access to sustainable electricity services in the ECOWAS and broader West African region for household, commercial enterprises and public

health and education facilities using solar PV standalone systems. The project, funded by the World Bank in the framework of the ECOWAS Program on Access to Sustainable Electricity Services (EPASES), directly contributes to the goals of the ECOWAS Regional Renewable Energy Policy (EREP) with a target to provide universal access to electricity to the region by 2030 as well as the SE4All action agenda.

ROGEP aims to:

- Complement the multiple existing initiatives on access to electricity using Standalone solar PV systems.
- Promote the uptake of pico-solar (lanterns, chargers, solar home systems, etc.) and standalone solar systems for households and productive use of energy through provision of energy services to public facilities such as health centers, schools, police offices, etc. including small business and solar water pumps.
- The project covers 19 countries, structured in four (4) areas as follow:
  - Area 1: Senegal, Cote D'Ivoire, Mauritania, Guinee, Mali and Burkina Faso
  - Area 2: Sierra Leone, Liberia, the Gambia Ghana, Nigeria
  - Area 3: Niger, Togo and Benin, Chad, Central Africa Republic and Cameroon
  - Area 4: Cabo Verde and Guinea-Bissau

Having policies, regulations, legislations and strategies on electricity access with clear definition of the role of off-grid is considered a positive indicator for private companies to invest in off-grid businesses.

ROGEP aims at influencing improvement of the national electricity access policy and regulatory framework through regional engagement and dialogue, therefore creating the necessary awareness and engaging the policy makers at the regional level in exploring off-grid solar as feasible alternative to achieve their access goals. Individual countries could learn from the regional exchange and put in place policies that are aligned with the regional policies and best practices.

ROGEP will fully exploit the added value and efficiency of the regional approach by creating and sharing knowledge, raise awareness and strengthening the capacities of the countries with a series of regional events in 2018, 2019 and 2020, followed by tailor made technical assistance to groups of countries framed in the regional intervention. This will be followed up by a Series of Project (SOP) approach, where countries that successfully participated and benefitted under ROGEP first phase (e.g. putting in place the enabling framework and concluding several off-grid transactions),

could further benefit from advanced technical assistance (TA), specifically designed for further improvement/adoption/enforcement of the national policy and regulatory framework to harness full potential of the off-grid solutions.

The top down approach of engaging at the regional level first will create the necessary ground and momentum for country level actions, playing complementary roles in this development space.

Given the nature of the solar industry and its early stage of entry into the Western African region, ROGEP adopts a flexible approach to identify the capacity building needs of the various stakeholders including the policy regulatory bodies, utilities, rural electrification agencies, and other line ministries, who could potentially benefit from the off-grid energy solutions and support them on an ongoing basis. ECREEE therefore engaged with all the nineteen (19) countries to assess their existing (or otherwise) frameworks through the utilization of a customized matrix<sup>1</sup>, ascertained the most relevant technical assistance needed by countries. Based on the analysis and the requests received by the countries, financial incentives (in particular tax incentives), standards and quality and integrated national electrification plan were the areas of most common interest at regional level.

ROGEP is preparing the first of a series of regional information sharing and awareness raising workshops, to build capacity on integrated national electrification plan, followed by technical assistance to a group of countries to improve the national policy and regulations on this area.

Therefore, ECREEE seeks the services of a consultancy firm to share best practices and provide capacity building, in a regional training workshop, to all the ROGEP countries on integrated national electrification planning and strategies with clear roles for off-grid solutions and in particular standalone solar systems. The consultancy firm will further provide technical assistance to a group of three (3) selected countries in improving their integrated electrification plans and strategies with a clear role for off-grid standalone solar systems. The countries that will receive the technical assistance will be selected by ECREEE before the regional training workshop based on the received requests as well as the outputs of the market assessment currently being conducted<sup>2</sup>.

In order to continue the regional engagement and dialogue, the experience of the group of countries that will be supported in the improvement of their integrated electrification plans and strategies

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<sup>1</sup> This matrix was based on feedbacks from the national workshops organized to launch ROGEP in each country and also through discussions with ministries and off-grid (rural) agencies and the private sector (FIs and solar companies)

<sup>2</sup> The selection will be completed before the request for proposal

will be shared in the following regional information sharing and awareness raising workshop.

The organization of the regional training workshop will be done by ECREEE.

## **OBJECTIVE AND SCOPE OF WORK**

The objective of the assignment is twofold: (i) to deliver a 3 day regional workshop that seeks to provide countries with international best practices as well as practical lessons learnt on integrated electrification planning development and its implementation; and (ii) to provide technical assistance to support a group of three (3) countries in developing and/or improving integrated electrification planning and strategies with a clear role for off-grid standalone solar systems.

The regional training workshop will target directors of energy at the Ministry in charge of energy and directors of the rural electrification agencies (or equivalent) from all the ROGEP countries and will aim at building their capacities by sharing information in an educative, practical and interactive way, while at the same time inviting countries to share their experiences and lessons in a cordial and frank exchange among peers.

This will be accomplished through the completion of 3 tasks:

1. Develop training materials on lessons from best practices and experiences on the elaboration, implementation and monitoring of integrated electrification planning and strategies and how they have worked in other countries, including where possible West Africa and Sahel countries;
2. Deliver a 3 day regional workshop targeting directors of energy at the Ministry in charge of energy and directors of the rural electrification agencies (or equivalent) from all the ROGEP countries; and
3. Provide high level technical assistance to support a group of three (3) countries in developing and/or improving integrated electrification planning and strategies with a clear role for off-grid standalone solar systems; which is aimed at feeding into and enhancing a regional framework development.

Work will be done in close collaboration with ECREEE and the countries as well as the World Bank Team, drawing heavily on the resources of ECREEE. The successful firm should ensure technical assistances avoid duplication and make full use of all the existing studies and documents available in each selected country, including regional documents like the EPASES (ECOWAS Programme on Access to Sustainable Electricity Services) program document, available at <http://www.ecreee.org/project/epases-ecowas-programme-access-sustainable-electricity-services>,

the outputs of the market assessment as well as other information available at [www.ecowrex.org](http://www.ecowrex.org).

The firm will make sure that gender is mainstreamed during the regional workshop as well as during the technical assistance to the countries, in line with the ECOWAS Policy for Gender Mainstreaming in Energy Access.

**Outputs** will be,

- i. workshop training materials, including tools, exercises, practical cases and presentation documents on best practices and examples of well implemented integrated electrification policies with off-grid standalone systems incorporated;
- ii. a written workshop report [format to be agreed at inception] to detail out the outcomes of the discussions at the event and countries which showed interested and need for further technical assistance; and
- iii. draft improved policy/strategy documents for the selected countries which could be approved by their parliament or senate for adoption and implementation
- iv. TA report with a description of the provided assistance and an assessment of countries' level of capacity and ability to implement the improved policy and recommend further required support, including capacity building needs, if needed.

Firms will also be expected to deliver a debriefing session in PowerPoint format at the ECREEE headquarters in Cabo Verde.

### **Detailed scope**

The assignment will draw upon existing data and materials wherever possible, but original research is expected to complement this information. The analyses will also take gender aspects in consideration. The detailed tasks to be performed are elaborated in the following sub-sections.

*Task 1: Develop training materials on lessons learnt and international best practices on the elaboration, implementation and monitoring of integrated electrification planning and strategies and how they have worked in other countries, including where possible West Africa and Sahel countries*

The materials to be developed by the firm include the workshop agenda and the training materials:

- a) The firm will elaborate the regional workshop agenda based on the proposed methodology to deliver the information in an educative, practical and interactive way, while at the same time

inviting countries to share their experiences and lessons in a cordial and frank exchange among peers. The dialogue among the countries will be proactively promoted. ECREEE will provide a draft concept note <sup>3</sup>for the workshop and the selected firm should use this to further develop a final concept note and from that produce a detailed agenda and program of activities. The workshop is meant to be very interactive and free flowing, hence the agenda and activities should be designed in such a manner. The selected firm is expected to propose how the workshop should be organized, including proposing sessions, topics for session discussion, panel members etc;

- b) Develop the training materials, including tools, exercises, practical cases, detailed briefs and presentations for the workshop. The detailed briefs should be made available to ECREEE and the country representatives a week to the workshop. The presentations should include, but not limited to, PowerPoint presentations, word narratives, flyers etc. The materials to be developed should have information on international best practices on integrated electrification policy design and its implementation, lessons learnt and their challenges and how these were solved or are being solved. These should mainly come from West African and/or Sahel region but also from around the world. The documents should be presented in an orderly manner in order for the message being conveyed to be well and easily understood.

*Task 2: Deliver a 3 day regional workshop targeting directors of energy at the Ministry in charge of energy and directors of the rural electrification agencies (or equivalent) from all the ROGEP countries*

The selected firm will lead the delivery of the training and the facilitation of the regional workshop, including carrying out all activities in ensuring the workshop is well planned and organized and the facilitation and moderation of all sessions. The training will be delivered in English, Portuguese and/or French.

ECREEE will work closely with the selected firm in ensuring all relevant stakeholders are invited and will provide close support towards the workshop organization from a logistic point of view.

The firm will develop a report detailing out the outcomes of the workshop and analyze the level of interest and need of the countries who participated based on the discussions and their initial requests for further support.

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<sup>3</sup> The regional workshop draft concept note will be provided as an annex by ECREEE to the ToR at the RFP

Task 3: Provide high level technical assistance to support a group of three countries in developing and/or improving integrated electrification planning and strategies with a clear role for off-grid standalone solar systems, where applicable

Based on the regional knowledge sharing workshop and capacity enhancement, ECREEE will agree with the government entity in charge of rural electrification in each of the countries that will receive the technical assistance on the existing gaps and where this TA should focus. The inputs for this will come from the market assessment report for ROGEP and the extensive interaction of ECREEE with the countries<sup>4</sup>.

The firm will, in close collaboration with the government entity in charge of rural electrification of the target countries and ECREEE:

- a) Facilitate the continuous exchange of experiences among the countries to fully exploit the added value and efficiency of the regional approach
- b) Conduct relevant studies, research and interviews to produce evidence based analysis to serve as foundation for developing the draft off-grid integrated electrification planning and/ or strategy with special emphasis on standalone solar systems. Where there exist an off-grid planning and/or strategy, the assignment should focus on how they can be improved with the focus on off-grid standalone solar system integration;
- c) Develop the draft of an integrated electrification plan/strategy. The developed draft should take into consideration the regional dimension and will have to be presented to a validation meeting with country stakeholders to improve it and have it finalized for adoption by the country authorities;
- d) Possibly along the lines of this validation meeting, conduct capacity building to share findings and recommendations from the TA and provide an implementation method and timeline for the developed instruments.
- e) Provide final TA report for each country, which will feed into a regional framework of support, with a description of the provided assistance and an assessment of countries' level of capacity and ability to implement the improved policy and recommend further required support, including capacity building needs, if needed.

## **METHODOLOGY**

The specific methodology for this assignment will be developed and included in the technical proposal submitted by the consultant. It is expected that the assignment will include a range of

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<sup>4</sup> The process will be completed before the request for proposal

methods including document review, interviews, consultative meetings with individual stakeholders and GIS analysis, where possible. Stakeholders should include representative of women groups.

The consultant is expected to propose an innovative approach to implementing this assignment in the technical proposal.

## **DELIVERABLES AND TIMELINE**

The assignment will be carried out over a 16 weeks period. The table below shows expected deliverables, suggested timeline, and payment schedule.

<b>Deliverables</b>	<b>Timeline from contract effectiveness</b>	<b>Payment</b>
Inception report	Week 2	5%
Progress report Tasks 1	Week 4	
Final report Task 1 and 2	Week 7	15%
Progress report Tasks 3	Week 11	
Task 3 report- country A	Week 14	20%
Task 3 report- country B	Week 14	20%
Task 3 report- country C	Week 14	20%
Task 3 consolidated report and Final presentation	Week 16	20%

All the reports and the final presentation should be submitted in English. Additionally, the deliverables for task 3 should also be in the official language of each country.

## **QUALIFICATIONS**

The assignment requires an experienced consulting firm capable of interacting and communicating effectively in French, English and/or Portuguese, depending on the countries, with government officials, power utility and regulatory management, private sector (off-grid sector especially), and financial sector and development agency representatives. Interested consultant firms should clearly demonstrate their experience in:

- Electricity and electrification planning, policies and strategies analyses and development;

- GIS analyses for integrated electrification planning and policy, including off-grid solution;
- Developing sustainable and effective policy documents for integrated electrification planning and strategy including off-grid solutions for developing countries;
- Delivering training workshops targeting high level officials on electrification policy and regulatory framework, with a particular emphasis on off-grid solutions;
- Providing tailor made technical assistance to sub-Saharan countries on electrification policy and regulatory framework, with a particular emphasis on off-grid solutions.

The specific experiences in the ROGEP countries will be particularly valued.

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

- Team Leader with significant experience in developing and implementing rural electrification strategic planning and policies;
- Senior Policy analyst/expert who was involved in at least 4 major policy drafting assignments related to integrated electrification planning;
- A gender expert to ensure the all developed material both for the regional workshop and country TA take into account Gender aspects.

Consultant firms are strongly encouraged to tap into locally-based expertise, as appropriate, to contribute to enhance local capacities and facilitate the implementation of follow-up activities.