together possible





### **Terms of Reference**

#### **Expanding Access to Energy Services in Rural Cameroon**

#### 1. Background

Lack of access to energy is a fundamental barrier to progress in human well-being and nature conservation in most of rural Cameroon, where only about 14% of the population has access to electricity. Without access to energy, women and children spend hours away from home in search for firewood, risking their personal safety and taking away time from educational and livelihood activities. Delivering energy services to rural Cameroon faces many challenges. Firstly, the rural populations are either remote, or poor, or both. Secondly, the low power generation capacity, the poor transmission and distribution infrastructure and high costs of supply to remote areas limit the potential for extending grid-based electricity. Moreover, serving dispersed populations with off-grid systems can be financially challenging, compounded by policy and regulatory gaps, limited financing for off-grid entrepreneurs, and affordability for poorer households.

Cameroon is determined to become an upper-middle income economy by 2035. The medium term strategy to attain this status emphasizes growth and employment. The country sees developing the energy sector as key to attracting investment and strengthening growth and has committed to generate 25% of renewable energy from sources other than large-scale hydropower. The country has prioritized the supply of electricity to remote rural areas. WWF and EGI (hereinafter, the partners) have committed to support government achieve the energy target. The partners seek the services of an external entity to facilitate delivery of the energy component of their respective country strategies.

# 2. Goal and Objectives

The goal of the assignment is to support the expansion of energy access and promote the productive use of renewable energy in Cameroon.

The objectives to accomplish the above goal are as follows:

- a) Conduct a renewable energy institutional, policy and coordination mapping
- b) Estimate the potential energy production and generation capacity from available resources in underserved communities around Key Biodiversity Areas (KBAs) in the South West and North Regions
- c) Conduct a community enterprise mapping to establish productive uses of energy and lay the foundation for cooperation with development stakeholders in 30 mutually agreed communities
- d) Forecast in detail how energy demand is likely to grow in future in mutually agreed communities
- e) Facilitate access to renewable energy markets and finance

# 3. Key activities

The partners have opted for a phase-based approach to the assignment as follows:

Phase I: Institutions, policy management and coordination

Activities envisaged for this phase include but not limited to the following:

- 1. Documenting Cameroon's track record in expanding off-grid renewable energy access to rural communities, paying particular attention to issues of commercial returns
- 2. Determining which institutions/stakeholders are, or should be, best placed to lead developments in renewable energy access;
- 3. Identifying barriers and opportunities to renewable energy access, paying particular attention to national planning; renewable energy and energy efficiency policies; regulation and fiscal policies
- 4. Identifying opportunities for mainstreaming renewable energy access across sectorial policies and programs to facilitate end-user uptake of productive uses of energy
- 5. Assessing the capacity of stakeholders to influence the renewable energy access policy environment, paying particular attention to the policy areas cited in activity 3 above. The assessment should integrate, as a key focus, the task of delegating appropriate stakeholders for key policy areas, and assess their overall coherence and existing conflicts or bottlenecks. It should identify coordination gaps and linkages, and determine entry points for strengthening the capacity of institutions/stakeholders to work together.
- 6. Proposing potential mechanisms to promote coordination and cooperation among institutions / stakeholders.

#### Phase II: Energy resource availability and forecasting demand near KBAs

Activities envisaged for this phase include but not limited to the following:

- 1. Conducting surveys to identify potential locations of commercially viable renewable energy resources, including solar, wind, municipal or agro-waste, animal waste and hydropower.
- 2. Proposing a ranking of sites/locations for the provision of off-grid renewable energy access and agreeing with the partners on at least 30 locations to retain in the program
- 3. Determining the amount of energy that the resources in each locality can generate.
- 4. Selecting the proven energy technologies that are compatible with energy resources in agreed localities
- 5. Costing of the renewable energy supply options proposed energy access solutions should be cost-competitive with existing household and enterprise uses.
- 6. Estimating the cost of expanding grid infrastructure to agreed locations and comparing the cost alternatives.
- 7. Determining the potential to recover infrastructure costs through government and/or municipal spending, user payment for energy services or other options.
- 8. Assessing user ability and willingness to pay for energy services and options for fees<sup>1</sup> recovery
- 9. Identifying opportunities to initiate productive-use activities<sup>2</sup> and laying the foundation for cooperation with other development stakeholders.
- 10. Determining the quantity of energy required in each agreed locality for:
  - Basic needs and lifestyle household requirements for cooking, lighting, entertainment, cooling/heating, appliances and communication (to the extent possible, structure data according to the different income strata).
  - Public uses street lighting, energy for schools, health facilities and social centres.

<sup>&</sup>lt;sup>1</sup>The partners expect applicants to include in their technical bid the tools they will use to assess overall energy infrastructure costs and to estimate user ability and willingness to pay for energy services and the justification for choice of tools.

 $<sup>^{2}</sup>$ Collect information on (a) established enterprises; (b) existing and potential natural and physical resources; (c) local and external markets; (d) available skills sets, labour potential, and individuals with the potential to develop as producers/entrepreneurs/for installation and maintenance; and (e) local products of strategic advantage.

- Productive uses business, industry and agriculture.
- 11. Forecasting the near- to medium-term demand for energy by each agreed communities and matching targeted energy supply with growth in user energy requirements<sup>3</sup>. Ultimately, the forecast should clearly establish the following:
  - Whether adequate renewable energy resources are both available and suitable
  - How much the energy generation systems need to be able to produce
  - Whether alternate sources of fuel may need to be sourced
- 12. Identifying potential socio-economic impact (from a gender perspective) of expanded energy access in agreed communities.
- 13. Identifying the climate change and biodiversity benefits of expanding renewable energy access with the chosen energy resource or technology in each agreed community.

### *Phase III: Facilitating energy service delivery and access to finance and markets* Activities envisaged for this phase include but not limited to the following:

- 1. Assessing the types and relative effectiveness of financial mechanisms available in Cameroon to support rural energy markets
- 2. Mapping of international financial instruments that support rural renewable energy development in Cameroon
- 3. Assessing the barriers and risks inhibiting access to, and the effectiveness of, identified financing and propose measures to address them.
- 4. Establishing initial contacts with relevant institutions/organizations to determine the most promising financing schemes, combinations thereof for expanding renewable energy, promoting productive use, and engaging in policy work.

# 4. Methodology

Applicants should propose a phase-based methodology appropriate for the assignment with clear justification for the choice of tools and standards for estimating relevant parameters, and a plan for consultations.

# 5. Deliverables

The key deliverables of the assignment are:

- Inception report including a plan of action with a framework of activities, methodology to be applied, schedule etc.;
- A synthesis report on institutional, policy and coordination mapping, including the review of material related to past and existing energy interventions in Cameroon, lessons learned and recommendations;
- A report on the productive uses of energy in at least 30 mutually agreed communities and documented consents from credible development institutions/organizations for cooperation in the promotion of productive uses of energy;
- A report on energy resource assessment, energy demand and forecast;
- A report on accessing finance and markets for promoting renewable energy service delivery with justified recommendations on financing schemes and outcomes of initial contacts with the relevant financing institutions/organizations;

<sup>&</sup>lt;sup>3</sup> The partners expect applicants to specify in their technical bids the model for forecasting energy demand and justification their choices.

- Indicators and baselines to measure the impact of renewable energy on human well-being, biodiversity conservation and GHG emission reduction outcomes in targeted communities;
- A 2-3 page grant concept note targeting three combinations of the promising and high-value financing schemes focusing on policy engagement and expanding access to renewable energy services to agreed communities;
- A 2-3 page grant concept for the promotion of productive use of energy in agreed communities targeting the most promising and high-value financing schemes;
- Presentations in at least three mutually agreed forums;
- Full contacts of persons and institutions consulted.

The partners expect reports in English, images in JPEG format, and data and information appropriately disaggregated. Their formal approval of the inception report is critical for continuing execution of the assignment by the chosen external entity.

# 6. Profile of Consultant(s)

The partners require the services of an external entity (institution, consultancy firm, or team of individual consultants) with strong expertise and experience in renewable energy and rural development. Expertise from the entity should include:

- Renewable energy, engineering (particularly in off-grid development settings);
- Anthropology/sociology;
- Applicable economic and finance models;
- Environmental impact;

The partners anticipate the following capabilities in the external entity:

- Extensive knowledge of renewable energy, including financial, legal and policy frameworks, renewable energy financial management effectiveness;
- Access to multi-disciplinary expertise to ensure the most appropriate and realistic options are suggested;
- Ability to coordinate a series of actors, companies or academic institutions working towards a common goal or set of common goals;
- Proven ability to identify social, environmental and economic impacts of specific renewable energy sources and implementation practices;
- Experience in data collection;
- Willingness to work flexibly based on potentially changing "in-field" situations;
- Ability to produce and present reports and other documents to effectively inform the implementation of activities;
- Ability to work with a variety of in-country actors, in English, French and local languages.

Any deviation in the methodology, scope, personnel or budget from that accepted in the external entity's contract must be pre-approved in writing by the partners before such change takes effect.

The Senior Program Coordinator and Climate & Energy Focal Point of WWF Cameroon will support the coordination and provide oversight to the assignment, assisted by EGI.

# 7. Timeframe for the assignment

The partners expect all deliverables of the assignment within six calendar months from the date of signature of the contract.

### 8. Offer of Service

Offers should include the following:

- Comments demonstrating understanding of the Terms of Reference and include suggestion for improvements;
- A clear statement explaining why the external entity is a suitable for the assignment;
- Outputs of at least two similar assignments;
- Brief curriculum vitae (1-page maximum) of each team member, highlighting only qualification and experiences relevant for this assignment;
- A clear phase-based methodology for implementing the assignment including the specific role and time to be invested by each team member;
- A phase-based work plan that provides a breakdown and a logical sequencing of activities, including timeframe;
- A detail phase-based budget (consultancy fees, travel costs, subsistence allowances, activity costs, etc.), including rates (hourly and/or man days). Provide the XAF version of the budget (stating the currency exchange rate used). All payment will be made locally in XAF.

The highest or lowest cost bidder may not necessarily be awarded this contract. Overall cost and best value for the budget will be strongly considered. The partners are under no obligation to issue a contract because of this call for tenders.