

# Rural and Renewable Energy Agency

Securing modern energy access for all Liberians



### REQUEST FOR EXPRESSIONS OF INTEREST

### RENEWABLE ENERGY FOR ELECTRIFICATION IN LIBERIA (REEL)

CONSULTANCY SERVICES- Detailed Survey and Design of the 15Km Access Road from Gehwee Junction to Gbedin Fall, Nimba County RENEWABLE ENERGY FOR ELECTRIFICATION IN LIBERIA (REEL) PROJECT

Project ID No.: P-LR-FA0-001

Issue Date: February 16, 2024 Closing Date: March 1, 2024

The Government of Liberia has received financing from the African Development Bank towards the cost of the Renewable Energy for Electrification in Liberia (REEL). The Government therefore intends to apply part of the proceeds of this financing for payments under the contract for Consultancy Services for Technical Audit of the 15km Access Road from the Gahwee Junction to Gbedin Fall hydropower plant site in Nimba County.

The Global Objective of the assignment is to provide a factual report including findings, with regards to the technical aspects and the results achieved during the implementation of the Access Road from Gahwee Junction to Gbedin Fall in Nimba County. It is also to provide to the Government of Liberia and the African Development Bank (AfDB) with recommendations to remedy errors that could have occurred or which can lead to improvements in the implementation of the project. The Auditor will assess whether the implementation of the project conforms with the applicable conditions and specifications in particular to the technical aspects. The objective of the consulting services is also to conduct a detailed engineering survey of the possible additional quantities prop, prepare detailed design and cost estimate for the construction of the road with appropriate packaging under the possible variation.

## The **Specific Objectives** are:

- i. To ensure steady execution of the works carried out;
- ii. To guarantee sound organization of the works;
- iii. To ensure the quality of the works carried out, in conformity with the contracts Technical Specifications have been respected and in accordance with the best practice in the sector;
- iv. To ensure that project expenditures are justified and were foreseen in the project budget;
- v. To guarantee sound management of the project, to ensure that each party duly meets its contractual obligations and mitigates the risk of claims, litigation and/or disputes;
- vi. To ensure that the project is implemented within budgetary allocation;
- vii. Detailed engineering survey of the alignment, and its corridor; Conduct hydrological studies for cross drainage works and fixing of embankment height
  - (i) Design the road details in co-operation with RREA;
  - (ii) Prepare working drawings of Proposed Road;
  - (iii) Prepare quantity & cost estimates.
  - (iv) Prepare survey and design reports

### **Scope of Services**

The Auditor shall report any anomaly, error or risk that could affect the global objective of the project and make appropriate recommendations to prevent or remedy them. All experts working under the contract must be independent and free from conflict of interest in the responsibilities attributed to them.

The Technical Audit for the Access Road from Gahwee Junction to Gbedin Fall shall be carried out in four stages; namely:

- i. Project Familiarization;
- ii. Initial Audit;
- iii. Final Audit;

## **Project Familiarization**

The Auditor should clearly understand the scope and complexities of the project by reviewing all contract documentation including drawings, specifications, materials reports, and conditions of contract of the following:

Access Road Gahwee Junction – Gbedin Fall

- a) Rehabilitation of the Access Road (9.4km)
- b) Construction of New Access Road (5.6km)

#### **Initial Audit**

This phase shall be carried out to ensure that all of the correct procedures have been established from the beginning of the project. During the first on-site audit, attention should focus on project management issues and construction methodologies.

The Auditor shall examine the following under the Initial Audit:

- i. Construction procedures,
- ii. Knowledge of the contract,
- iii. Construction quality of work completed,
- iv. Road safety,
- v. General attitude towards the work.

The Auditor would also ensure/verify that the assessment of the Contractors has been done satisfactorily by the Engineer, regarding the following issues and aspects:

- i. Quality and appropriateness of the plant and equipment,
- ii. Methods of working;
- iii. Materials used;
- iv. Site organization and site management;
- v. Quality and details of the construction program;
- vi. Site safety;
- vii. Quality assurance procedures;
- viii. The Contractors' project management processes and procedures;
- ix. Inspect and check both the completed work and work in progress. Completed work should conform to the typical plans;
- x. Assess the Consultants' quality assurance procedures;

- xi. Ascertain the quality of materials by undertaking visual inspections;
- xii. The construction methods and the care and diligence employed by the contractors;
- xiii. Review progress against the program and review the history of the program changes (reasons and responsibility for delays should also be assessed);
- xiv. Check the current estimate against the tendered price using Contractors' management systems;
- xv. Check management records and the latest payment certificates and ascertain whether claims are being dealt with in terms of the contract;
- xvi. Check materials on site by sampling, testing and inspection of materials and records;
- xvii. Check that all payments to the contractors are as per the contract conditions and contracted quantities.

## **Final Audit**

The Final Audit shall determine conformance with all aspects of the Contracts and shall deal with all the issues identified in the Initial Audit. The principal sources of information will be the as-built plans, test records, measurement and payment data, site correspondence and minutes.

Upon completion of the Audit Services of the works already done at site ,the consultant shall be required to provide overall construction engineering details in accordance with internationally recognized practices for consultancy services suitable to control and monitor the project in all aspects and in line with requirements stated in these TOR. The consultant shall perform the requested services as an independent Engineer in conformity with acceptable international standards and applicable laws.

The consultant shall carry out the necessary field work along the road alignment. The team personnel to be mobilized for field work and the schedule of field work should be included in the proposal. The center line should be set out with proper establishment of Benchmarks. The consultant shall then carry out further surveys about the work necessary for detailed design of the road. The consultant shall be responsible for the analysis and interpretation of the data.

The consultant will prepare the following plans and working drawings on suitable reproducible materials using the format and title sheets as required by the engineer in-charge for the proposed additional quantities as part of the construction of the new access road:

- a) Preparing strip topographical map of road in map scale 1:1000 having contour interval 0.5m.
- b) Map showing complete alignment with kilometer, names of area, land use, markets, grid lines, villages, name of natural drainage, obligatory points etc.
- c) Location map showing linkage of the road with surrounding road network.
- d) Map showing survey and design status of the complete road, intersection points (IP), Benchmarks (BM) and other reference points.
- e) Plan, profile (longitudinal section) and cross-section in the following scales.

Plan 1:1000

Profile horizontal 1:1000 Profile vertical 1:100 Cross-section 1:100

- f) Plans and profile of the road should contain details of geometry viz. horizontal alignment with coordinate of IP, deflection angle, IP to IP distance, curve data, Chainage of IP etc., Index of IP, BM, KM posts etc., names of rural municipality, district, forest, land use pattern, cross-drainage structure, retaining walls required or as instructed by the engineer in-charge.
- g) Reference charts of all intersection points (IP), benchmarks (BM) and other reference points.

- h) Standard drawings of mentioned cross drainage structures, retaining/breast wall, side drain (lined/unlined), typical cross section of the road according to type of soil viz. HR, SR, BMS, passing zone (if provided), hairpin bend (if provided), etc.
- i) The consultant shall provide all the above-mentioned documents in both hard and soft copies.
- j) The consultant shall consult with the local people and submit the minutes of meetings and attach supporting photographs too.

The Rural and Renewable Energy Agency now invites eligible Consulting firms to indicate their interest in providing the above services. Interested firms should provide information demonstrating that they have requisite qualifications and relevant working experience to perform the required services.

The Consultant shall be a firm with at least 10 years of demonstrable knowledge and experience in Audit of the roads construction works; detailed engineering surveys and design, construction, supervision and/or management of roads. The interested firms shall propose the optimal work plan, organization, and staffing schedule to efficiently implement the project.

In case of JV or association, equal weighting will be used for the lead firm and for partners or associates.

The Eligibility criteria for the establishment of the short-list and the selection procedure shall be in accordance with the African Development Bank's "*Procurement Policy for Bank Group Funded Operations*", *dated October 2015* which is available on the Bank's website at <a href="http://www.afdb.org">http://www.afdb.org</a>. Furthermore, the Borrower is under no obligation to shortlist any consultant who expresses interest.

Consultants may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications.

A Consultant/firm will be selected in accordance with the Consultant's Qualification Selection (CQS) method.

Further information and the detailed Terms of Reference (TOR) for the assignment can be obtained electronically at the following email addresses and Website listed below from Mondays to Fridays, from 0900 to 1700 hours GMT:

Expressions of Interest must be delivered in hard copy or e-mail to the address below on or before **March 1, 2024, at 1600hrs** local time and mention "Consultancy Services for Engineering Firm for Contracts Management and Supervision of Construction Works Renewable Energy for Electrification in Liberia (REEL) Project.

Only Shortlisted Consultants will be contacted.

Mr. Joseph Williams
Executive Director
Rural and Renewable Energy Agency (RREA)
Old LEC Sub-station, Newport Street
Monrovia, Liberia
Email:

info@rrealiberia.org; augustinem@rrealiberia.org; tenniej@rrealiberia.org