

**EoI No. 11.07.023/8798/18/MD-EDCL/FG/rjg/ng**

**REQUEST FOR EXPRESSIONS OF INTEREST (FIRM ONLY)**

**TO REGISTER QUALIFIED AND EXPERIENCED ENGINEERING FIRMS TO CONDUCT FIELD SURVEYS AND PREPARATION OF COMPLETE DETAILED DESIGNS FOR TRANSMISSION & DISTRIBUTION CONSTRUCTION PROJECTS.**

**BACKGROUND**

One of the strategic objectives of the National Strategy for Transformation (NST1) and its successors-EDPRS I & II- is to expand electricity until universal access is achieved while at the same time improving quality of supply at the lowest possible cost. This planned tremendous increase of connections goes hand in hand with the network reinforcement that includes Transmission projects for efficient power supply. Government of Rwanda through The Energy Development Corporation Limited (EDCL) needs to hire consulting firms under framework contract basis which will be conducting surveys, soil investigations and complete detailed designs for distribution projects including those proposed under National Electrification Plan (NEP) as well as continuous Transmission projects for network reinforcement.

**OBJECTIVE OF THE CONSULTANCY**

The purpose of establishing a data base/list of qualified and experienced engineering firms is to support the Energy Planning Department under EDCL to conduct surveys, soil investigations and complete detailed designs to be used for construction of distribution and transmission projects aimed at quickly achieve universal access to electricity services that meet applicable standards on quality in a sustainable manner in the shortest possible time and optimizing allocation of available resources.

The Energy Development Corporation Limited (EDCL) wishes to invite eligible engineering consulting firms to express their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the administrative, managerial, financial & technical capabilities and relevant past experience to perform the Services.

**SHORTLISTING CRITERIA**

The short-listing criteria shall base on the following:

- The profile of the firm indicating its core business relevant to the engineering design for power development projects, transmission and distribution lines or other related-**10%**;
- At least 5 years of experience in the field of engineering design, construction or supervision services-**10%**;
- Description of least two (02) similar and relevant assignments completed with proven certificates of completion-**40%**

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- Summary of qualification and experience of availability of appropriate skills among its key staff including: Project Manager, Distribution design Expert, Substation design Expert, Transmission Design, Civil Expert, Financial & Economist Analyst, Socio Safeguard Expert, Environmental Specialist & Geologist: **30%**
  - Description of softwares and tools in their possession they intend to use for this assignment justifying their familiarity in technology-based design services under similar conditions-**10%**;
  - The minimum qualifying marks is **70%**.
  - For eligibility purposes, consultants are also requested to present the following:
  - Their firms/companies organizational structure;
  - Proof of the registration certificate issued by RDB for local registered companies and Trade license/certificate of incorporation for foreign firms;
  - Proof of affiliation in the Rwanda Engineering Council for local firms or issued by similar engineering/professional bodies for foreign firms.

Following the completion of the evaluation of expression of interests, EDCL shall maintain a register of those qualified and experienced short-listed firms for a period not exceeding **three (3) years** from which and through mini-competition(s) shall be selecting one(1) or many consultants depending on the size, nature, sites locations, urgency among others for the execution of a specific detailed design consultancy whenever needs arise.

By this notice, EDCL invites all eligible and qualified engineering firms with good track record in the field, to submit their duly signed and properly bind Expressions of Interest (EoI) either **in 2 hard copies one being original** or **submit electronically** to the following address:

**The Managing Director**

**Energy Development Corporation Ltd (EDCL)**

**P.O. Box 3855, Kigali City Tower(KCT), 10<sup>th</sup> Floor in the Procurement Office**

**E-mail : [mngenganyi@edcl.reg.rw](mailto:mngenganyi@edcl.reg.rw) and copy to [procurement@edcl.reg.rw](mailto:procurement@edcl.reg.rw)**

**Attn: Procurement Unit.**

Expressions of interest must be delivered to the address above on or before **11<sup>th</sup> December, 2018 at 5:00 p.m. local time**. For any inquiry, please address to the above e-mails.

The detailed Terms of Reference(ToR) can be downloaded on the Rwanda Energy Group (REG) website [www.reg.rw](http://www.reg.rw) or can be obtained from EDCL/Procurement Office during working hours.

Eligibility, establishment of the short-list and selection process shall be conducted in accordance with the Rwanda Energy Group (REG) procurement procedure manual as of August 2016.

Done at Kigali,

**RUHIGULA Jackson GAFULEKA**  
**Head of Procurement Unit**

**Felix Gakuba**  
**Managing Director**

**TERMS OF REFERENCE FOR RECRUITMENT OF ENGINEERING FIRMS TO CONDUCT FIELD SURVEYS & PREPARATION OF COMPLETE DETAILED DESIGNS FOR TRANSMISSION & DISTRIBUTION CONSTRUCTION PROJECTS**

## **I. BACKGROUND**

One of the strategic objectives of the National Strategy for Transformation (NST1) and its successors-EDPRS I & II- is to expand electricity until universal access is achieved while at the same time improving quality of supply at the lowest possible cost.

A design aspect limited to project description and cost estimate as well as the preparation of 7 years' implementation plan is being developed under National Electrification Plan (NEP).

In addition to this, the current electricity access program, which was founded basing on investment prospectus report was re-assessed, as well as the re-evaluation of the economic feasibility of continuing to extend the grid to the most remote areas. While EARP initially mainly focused on households and public facilities (such as schools, health centers and administrative offices), EDPRS II also recommended the connection of productive use areas that can have a positive impact on the economic development of the country.

This planned tremendous increase of connections goes hand in hand with the network reinforcement that includes Transmission projects for efficient power supply.

The Government of Rwanda needs to hire a consultant firm to be based in Rwanda with a framework contract to conduct detailed designs for distribution projects including those proposed under National Electrification Plan (NEP) as well as continuous Transmission projects for network reinforcement.

## **II. OBJECTIVE OF THE CONSULTANCY**

The purpose of the consultancy is to support Energy Planning Department under EDCL to conduct detailed designs for distribution and transmission projects aimed at quickly achieve universal access to electricity services that meet applicable standards on quality in a sustainable manner in the shortest possible time and optimizing allocation of available resources.

## **III. SCOPE OF WORK**

The Consultant shall carry out his/her mandate according to his/her professional judgment to fulfill the purpose of the assignment, and may propose improvements to the terms of reference that could help to achieve a better implementation of the project. Such proposals, if accepted, will be formally incorporated to the terms of reference of the assignment.

A thorough process of consultations with EDCL planning Engineers is to be an integral part of the assignment.

The major activities related to the assignment are listed below but no limited to:

- Review the design performed within NEP to improve the scope of proposed distribution projects and provide the necessary details for direct implementation;
- Conduct Feasibility studies for Transmission projects in the pipeline as well as detailed designs for the same projects for further implementation; A Soil investigation will be required for proper structure selection;
- Using appropriate survey tools and software (ArcGIS; Total stations;), the consultant will perform a physical survey to define the positions of transformers along the line route taking into consideration the applicable standards;
- The consultant will optimize the line design using PLS CADD and will produce line design reports that include line profiles; structure usage reports; section usage reports; terrain clearance reports; summary reports as well as the Bill of Materials and cost estimation for the proposed projects;
- The consultant will also provide power system analysis reports for a particular network area in which distribution / Transmission projects have been identified to be connected to the Grid. These reports will be generated from Dig Silent Power Factory;
- In collaboration with EDCL planning Engineers, the consultant will produce a complete set of Technical specifications for specific projects useful for the procurement purpose;
- The consultant shall as well use certified experts to generate expropriation reports wherever required;
- Provide the required document related to Environmental and Social safeguard issues for sustainable projects implementation.

#### **IV. TIME ALLOCATED TO THIS CONSULTANCY**

It is expected that the consultancy services will be executed for total period of three (03) years under framework basis. The consultant will provide all necessary expertise and logistics to enable the task to be completed within the agreed duration of the contract. The contract will be signed by the Managing Director of EDCL.

#### **V. DELIVERABLES AND TIME SCHEDULE**

The consultant is expected to provide the following deliverables:

- An inception report on the assignment for a period of 3 weeks;
- A draft design report to be discussed and approved/accepted by both the planning department within a reasonable time from the date of request from Planning Department;

- A final Design report comprising the details as described in the scope of work which will be used for tendering. This must be delivered within 1 week from the date of approval of the draft design report.

## VI. CONSULTANT’S TEAM AND QUALIFICATION

The consultant will be a firm or consortium of firms with the following corporate qualifications and experience:

- Proven 5 years of Experience in the design of systems for electrification of rural areas, engineering designs, construction or supervision services in developing (non-OECD member) countries with at least 2 successful similar assignment conducted before.
- Experience of 5 years using PLS Pole; PLS Tower; PLS CAD; Dig Silent Power Factory and Arc GIS is mandatory.

The consultant will be entirely responsible for carrying out the designs as stated in the scope of work and he will provide the experts as proposed in the table below. All essential logistics in terms of quality and quantity for the fulfillment of the task are under obligation of the consultant as well as taking all necessary measures for a good execution of the work assigned to him and within the allocated timeframe.

This table below shows summarized profiles of required experts:

<b>Position</b>	<b>Required qualifications</b>	<b>Score weight</b>
<b>Project Manager</b>	Electrical engineer or Electro-mechanical engineer with 10 years’ experience in the design, planning and execution of electrification studies and projects in developing countries.	<b>3%</b>
<b>Distribution Design Expert</b>	Electrical engineer specialized in designing distribution network design; knowledge of PLS CADD, PLS TOWER, PLS POLE and any load flow analysis software (DIG Silent is the most preferable) is a must. He must have at least 7 years’ experience in designing projects initiated in developing countries.	<b>3%</b>
<b>Substation Design Expert</b>	Electrical engineer or electro-mechanical engineer specialized in substation design. He must have at least 7 years’ experience in designing projects initiated in developing countries.	<b>3%</b>
<b>Transmission Design Expert</b>	Electrical engineer or electro-mechanical engineer specialized in Transmission network design; knowledge of PLS CADD, PLS TOWER, PLS POLE and any load flow analysis software (DIG Silent is the most preferable) is a must. He must have at least 7 years’ experience in designing projects initiated in developing countries.	<b>3%</b>
<b>Civil Expert</b>	Civil Engineer specialized in civil engineering with at least 5 years’ experience in electrical projects; a knowledge of AUTO-CADD or ARCH-CADD is required.	<b>3%</b>
<b>Financial and Economist</b>	He must be holder of Bachelor Degree in Finance/Economics and have at least 10 years’ experience in the evaluation of development and	<b>3%</b>

<b>Analyst</b>	private projects in the field of Energy.	
<b>Socio Safeguard Expert</b>	He must hold a Master's degree in economics and/or sociology and have at least 10 years' experience in gender issues and in community participation and socio-economic surveys.	<b>3%</b>
<b>Environment Specialist</b>	He must have a Master's degree in environment or ecology or equivalent recognized qualifications and has at least 10 years' experience in the assessment of environmental impact of infrastructure projects.	<b>3%</b>
<b>Certified Valuer</b>	He must have a valid certification in Assets valuation and have at least 5 years' experience in this activity and have a track record in handling expropriation works.	<b>3%</b>
<b>Geologist</b>	He must have a Master's degree in geology or equivalent recognized qualifications and has at least 10 years' experience in soil investigation.	<b>3%</b>
Total weight for this criteria out of the total qualifying marks of 70%		<b>30%</b>

## VII. OBLIGATIONS OF EDCL

EDCL will provide to the Consultant with all available documents, data and studies which may be necessary for the good execution of the study.

## VIII. REPORTING REQUIREMENTS

The consultant will report to the Director of Planning in EDCL and Director of Planning at REG level.

The consultant will produce the following reports:

- Bi-monthly reports shall be made by the consultant to include tasks completed and ready for discussion.
- Monthly reports including work plans shall be made and approved by the Director of Planning in EDCL as a condition of payment.

## IX. TRANSFER OF KNOWLEDGE

The transfer of knowledge shall be carried out at different stages as follows:

- During the execution of work, the consultant shall endeavor to transfer knowledge to the relevant staff of REG;
- Training according to an agreed schedule shall be carried by the consultant throughout the duration of the assignment. A consultant shall include in his proposal a training plan and topics to be covered related but not limited to line design using ArcGIS and advanced PLS CADD for line design & Dig Silent Power Factory for network analysis.

**Form for the description of similar assignments.**

Consulting firms are required to list previous similar and relevant assignments in nature, complexity, and size which were successfully completed in the firm's name with certificate of good completion **and not assignments completed by firm(s) individual experts/staff.**

#	Period of services and duration	Description of the assignment/Services	Name of the Client & its full address and contact information	Contract value in USD/Rwf/EUR or equivalent freely convertible currency	Role of the firm in the assignment	Description of some key components/deliverables of the assignments
1	e.g., Between 2001-2002, for 6 months	e.g, Consultancy services for ..... .....	e.g, ABCDE, Nigera, Tel, E-mail, P.O Box, etc.	e.g, 100,000 USD	e.g, Main consultant, Sub-Consultant in the JV if any, etc	e.g, - Topographic survey - Soil investigation - Detailed engineering design and preparation of standard technical specifications -BoQ preparation, etc
2	e.g., Between 2001-2002, for 6 months	e.g, Consultancy services for ..... .....	e.g, ABCDE, Nigera, Tel, E-mail, P.O Box, etc.	e.g, 100,000 USD	e.g, Main consultant, Sub-Consultant in the JV if any, etc	e.g, - Topographic survey - Soil investigation - Detailed engineering design and preparation of standard technical specifications -BoQ preparation, etc

**N.B:** The above are detailed terms of references, but evaluation criteria for purposes of elaborating the short list shall be based on scores as defined and distributed in the published Expression of Interest (EoI) with Ref No. 11.07.023/8798/18/MD-EDCL/FG/rjg/ng.