



Eastern Cables Limited

INVITATION FOR REQUEST FOR EXPRESSION OF INTEREST (EOI)

1.	Ministry/Division	Ministry Of Industries		
2.	Agency	Bangladesh Steel & Engineering Corporation		
3.	Name of Procuring Entity	Eastern Cables Limited		
4.	Procuring Entity Code	Not used at presents		
5.	Procuring Entity District	Chattogram		
6.	Expression of Interest for Selection Of	Consulting Firm		
7.	EOI Ref. No.	ECL/Planning/23-208, Date: 31/10/2023		
8.	EOI Publishing Date (dd/mm/yyyy)	01/11/2023		
Key Information				
9.	Procurement Method	Quality and Cost Based Selection (QCBS)		
FUNDING INFORMATION				
10.	Budget And Source of FUNDS	Own Fund		
11.	Development Partner (if applicable)	N/A		
PARTICULAR INFORMATION				
12.	Project/Program Code (If Applicable)	Not used at present		
13.	Project/Program Name (if Applicable)	Detailed Feasibility Study & Preparation of DPP (Development Project Proposal) based on the study for Establishment of "Smart & Complete XLPE Insulated Cable production plant including CCV line (Voltage rating up to 36 kv) in Eastern Cables Ltd." at North Patenga, Chattogram.		
14.	EOI Closing Date and time	16/11/2023		
INFORMATION FOR APPLICANT				
15.	Brief Description of the Assignment	<ol style="list-style-type: none"> The consultant will carry out a feasibility study identifying a sampling methodology, appropriate data and information collection tools, market verification of cable industries machineries, visiting sites, cable factories and other related organizational offices to collect base line information, also communication with foreign countries and manufacturer for necessary information such as plant's operational machineries with specification & number, raw materials, Spare parts etc. Perform financial analysis/IRR, ERR calculation & NPV analysis. Prepare detail Drawing and Lay-out / Indicative Design of this plant including identification of the international source of manufacturing machineries and equipment. Estimate the total investment cost to establish plant with testing facilities, quality construction including chemical, electrical & physical testing facility and training institute within the factory complex. Perform demand analysis, which includes as follows: market access, SWOT analysis, regional market (Nepal, Bhutan, India, Myanmar & Middle East) analysis, market growth, competition, pricing analysis, criteria of unit cost & case scenarios, strategy of sales & marketing, advertisement & awareness campaign, sales forecast etc. Prepare the Initial Environmental Examination (IEE), Environmental Impact Assessment (EIA) Socio-economic impact assessment etc. Prepare DPP for this project. The firm may hire specialists/firms/company for these works. 		
16.	Experience, Resources & Delivery Capacity Required	<ol style="list-style-type: none"> General experience of the consultant firm should have at least 05 (five) years and specific experience is in conducting feasibility study and having excellent analytical skills and adequate experience in conducting field study and surveys etc. The consulting firm should have an adequate financial & technical resource/capability to perform the assignment in due time & manner. The firm should have a well conversant team of specialist with the sampling technique and have a strong and proven orientation towards applied research in plant such as XLPE cable and HT cable production plant. Eligible consulting firm is to indicate the interest in providing the above-mentioned services. Interested consultants must provide information indicating that they are qualified to perform the services (such as: Prepare DPP, brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, proposed methodology, work plan etc.) The above-mentioned criteria are an outline of overall for the prospective consulting Firm. However, the detailed Terms of Reference (TOR), qualification criteria, resource requirements, financial strength and all other related terms as required for rendering the consultancy services will be clearly elaborated in the Request for Proposal (RFP). 		
17.	Other Details	<ol style="list-style-type: none"> Expression of Interests (EOI) in three sets (one original + two duplicate) & 01(One) soft copy (in CD) shall be submitted in sealed envelope, delivered to the address of the undersigned. Any application submitted later than the specified time shall not be entertained. TOR could be collected from Eastern Cables Limited, North Patenga, Chattogram as hard copy & also from the web address: www.easterncables.gov.bd 		
18.	Association with foreign firms is	Encouraged		
19.	Ref. no.	Location	Indicative Start Date (Month/Year)	Indicative Completion Date (Month/Year)
20.	ECL/Planning/23-208, Date: 31/10/2023	North Patenga, Chattogram.	12/2023	06(Six) Months from the starting date
PROCUREMENT ENTITY DETAILS				
21.	Name of the Official Inviting EOI	Syed Mohammed Saherul Azam	23	Address of the Official Inviting EOI
22.	Designation of the official inviting EOI	Managing Director (In-charge)	24	Contact details of the official Inviting EOI
				Eastern Cables Limited, North Patenga, Chattogram-4204, Bangladesh. Tel: +88031-2501291, Mobile: +8801819-311050, Email: mdeclctg1@gmail.com

The Procuring entity reserves the right to accept or rejects all EOI's



Terms of Reference (TOR) for Appointment of Consultant Firm / Institution for detail Feasibility Study to establish a "Smart & Complete XLPE Insulated Cable production plant including CCV line (Voltage rating up to 36 kv) in Eastern Cables Ltd." at North Patenga, Chattogram.



Eastern Cables Limited



Bangladesh Steel and Engineering Corporation
Ministry of Industries.
North Patenga, Chattogram.

Terms of Reference (TOR)

The Terms of Reference (TOR) explain the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the client & the consultant & expected results deliverables. Adequate and clear TOR is essential for the understanding of the assignment and its correct execution by the consultant. It also helps reducing risk of ambiguities during the preparation of proposals by the consultant, contract negotiation & execution of the services.

Terms of Reference normally contain the following sections:

S.No. Title

- A : Assignment Background
- B : Objectives of the assignment
- C : Scope / Description of Work
- D : Outline of the tasks to be carried out
- E : Qualifications & Experiences
- F : Duration, Terms & Conditions
- G : Reporting Requirements/Deliverables
- H : Final Outputs Required from the Consultant and Delivery Schedule
- I : Data, Services and Facilities to be provided by ECL

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Terms of Reference (TOR)

for

Appointment of Consultant Firm /Institution for detail Feasibility Study to Establish

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“Smart & Complete XLPE Insulated Cable production plant including CCV line (Voltage rating up to 36 kv) in Eastern Cables Ltd.” at North Patenga, Chattogram.

A. Assignment Background

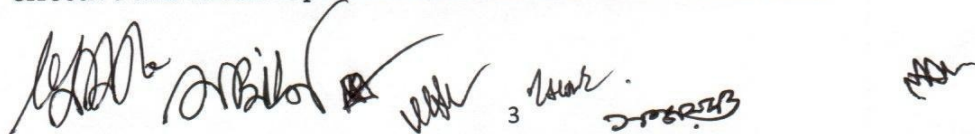
Technologies are upgraded day by day. Peoples are always choosing more longevity and latest technology goods. To use the innovated technology XLPE Power Cable which has more current carrying capacity & longevity for power transmission line. Eastern Cables Ltd likes to implement the manufacturing plant. The plant will manufacture XLPE Power Cable and marketed in the competitive market & ECL will be gained financially. Presently, ECL has about 4.6% market share in Electric power Cable Sector. This poor percentage due to lack of XLPE insulated cable. Bangladesh Power Development Board (BPDB), Dhaka Power Distribution Company (DPDC), Dhaka Electric Supply Company Ltd. (DESCO) has taken action to implement underground power distribution network. As a result people will get modern power supply facilities (Underground network) which would reduce distribution cost as well as ensure uninterrupted power supply. By the implementation of the proposed project in ECL, Governments' only electric cable & wire production factory ECL could help to control the market price of the XLPE power cable and will break the monopoly of private manufacturers & imported XLPE power cable. Also ECL will be financially viable and survive in the global competition.

The proposed project will help to improve ECL's product quality, product diversification. It is mentionable here that the said project will be implemented (if Approved) in ECL premises so no land acquired is required.

B. Objective of the Assignment

The main objective of the assignment is to techno economic feasibility studies, for the proposed project. Others are as follows

- To study existing and future international and local market demand of XLPE cable
- To find out the voltage rating up to 36 kv of XLPE cable with respect to
 - i) ECL geographical location
 - ii) Local & international XLPE market demand
 - iii) Maximum ROI for the proposed project in ECL
- To identify related training program for ECL's officer, operator, worker & others (if required) in home and abroad for running the proposed XLPE cable plant
- To prepare set of the total manpower with knowledge and skill level for the effective and efficient production of XLPE insulated cable plant.

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- To make efficient production cost by increasing the productivity & maximum return on investment (ROI). Moreover by implementing XLPE insulated cable to survive in the competitive market as well as to save foreign currency.
- To identify prevention of counterfeit ECL products at low cost in electric cable market
- To conduct all the required field studies with detailed primary, secondary baseline data collection (includes area of the site - based on raw materials, XLPE CCV line production flow process, voltage rating up to 36 kv of XLPE insulated cables, dispatch of finished product and slag if any).

C. Scope / Description of Work

1. The consulting firm will carry out a feasibility study identifying a sampling methodology, appropriate data and information collection tools, price verification of cable industry machineries, visiting sites, cable factories and other related organizational offices to collect base line information, also communication with foreign countries and manufacturer for necessary information such as plant's operational machineries with specification & number, raw materials for products, machineries spare part's etc.
2. Suggest the techno economic voltage level up to 36 kv or more for XLPE cable in ECL considering geographical location, local & international XLPE market demand and maximum ROI for the proposed project in ECL
3. Also advise with details drawing for the economic power supply facilities from source of BPDB or renewable energy or generator or combination of all to this XLPE cable plant.
4. Perform financial analysis / Internal rate of return (IRR), Return on investment (ROI), Return on Asset (ROA), Net present value (NPV), Benefit cost ratio (BCR), Economic rate of return (ERR), sensitivity analysis and the SWOT will be analyzed.
5. Prepare detail drawing (basic engineering) and lay-out/Indicative design of this plant including identification the international source of manufacturing machineries and equipment.
6. Estimate details of (i.e., Machineries list with cost, Factory shades cost, Certification cost and others) the total investment cost to establish the XLPE insulated cable plant.
7. Preparation of advanced/ automated / latest technical lab facilities for the XLPE, PVC insulated cables voltage level up to 36 kv including raw materials chemical, electrical & physical testing facilities as per International Electro-technical Commission standards.





8. Prepare the total manpower list with knowledge level, to run the factory properly and smoothly. And suggests require training needed to develop the manpower skillness within the factory complex or others.

9. Perform demand analysis, which includes as follows:

- i) Market access
- ii) SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis
- iii) Regional market (Nepal, Bhutan, India, Myanmar & Middle East) analysis
- iv) Market growth
- v) Competition
- vi) Pricing analysis
- vii) Criteria of unit cost & case scenarios
- viii) Strategy of sales & marketing
- ix) Advertisement & Awareness Campaign.
- x) Sales Forecast
- xi) Financial Terms

10. Prepare the Initial Environmental Examination (IEE), Environmental Impact Assessment (EIA) socio- economic impact assessment, Environmental Management Plan (EMP), ETE, Fire security system, Water Treatment Plant (WTP) etc. as per necessary for the proposed project. The firm/institution may hire specialists/firms/company for these works.

11. Prepare the breakdown of XLPE cable's unit selling prices

12. Prepare a final analytical report according to the proposed projects objectives, scope / description of work. The final report will be accepted after certify by the selected GOB engineering institution.

13. Prepare DPP for this project.

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D. Outline of the tasks to be carried out

In order to achieve the intended results, this consultancy services includes the following tasks:

- a. Perform demand analysis.
- b. Perform Field Survey, format an appropriate survey methodology, including sampling method to focus the research & data collection
- c. Performed Financial analysis/IRR, ERR calculation & NPV analysis
- d. List of Machineries with specifications, numbers & capacity, manpower needed etc.
- e. Prepare detail drawing & lay-out/indicative design of this plant including identification of the local & international source of manufacturing machinery & equipment
- f. Format clear conceptual time-framework of this study
- g. Submit a draft report
- h. Incorporate comments to create a final draft of the report and in addition to providing all raw data collected during the study in electronic format
- i. Provide data sets, final report/analysis
- j. Submit summarized final report.

E. Qualifications & Experiences:

01. General experience of the consultant firm should have at least 05 (five) years and specific experience is in conducting feasibility study and having excellent analytical skills and adequate experience in conducting field study and surveys etc. The consulting firm should have an adequate financial & technical resource/ capability to perform the assignment in due time & manner.

02. The consultant firm shall have experience of successful preparation of at least three (3) Techno-Economic Feasibility Report/Detailed Feasibility Report/Detailed Project Report as per client need. Out of these three plants, at least one should be outside CONSULTING FIRM home country. In support of the above, copies of the following documents shall be submitted by the CONSULTING FIRM-

- i) Work Order/Contract Document/Purchase Order issued by Clients.
- ii) Documentary evidence of successful completion/commissioning of plants.

03. The firm should have a well conversant team of specialist with the sampling technique and have a strong and proven orientation towards applied research in plant such as XLPE cable & HT cable production plant.

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04. Eligible consulting firm is to indicate the interest in providing the above mentioned services. Interested consultants must provide information indicating that they are qualified to perform the services (such as: brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, proposed methodology, work plan etc.)

05. The Consulting firm shall submit audited annual financial reports for last three (3) consecutive financial years ending prior to the date of notice inviting tender. But Govt. entity do not need to submit the financial reports.

06. In case of getting consulting service from govt. organization/Institute/Engineering University, also needs to perform the tasks according to the terms & conditions of FS, EOI & TOR.

The Government organization/institution/ Engineering University has to submit experience certificate of feasibility study of similar tasks. Experience of feasibility study in govt. organization is appreciable.

07. Personnel Requirements / Team Composition:

The study Team would compose of the following Minimum team members:

SL	Key Professionals & other Staff	Number	Qualification & Experience
1	Team Leader	01	The Team Leader should have a B.Sc. Engg. degree in Electrical/ Electronics/ Mechanical Engineering with excellent analytical skills & at least 20 years professional experience in relevant field
2	Electrical Engineer	01	A graduate Electrical/Electrical & Electronics Engineer with excellent analytical skills & at least 15 year's professional experience in relevant field
3	Mechanical Engineer	01	A graduate Mechanical Engineer with excellent analytical skills & at least 15 years professional experience in relevant field
4	Civil Engineer	01	Should have a Bachelor degree in Civil Engineering with excellent analytical skills & at least 15 years' professional experience in relevant field
5	Cost Estimate Engineer	01	Graduate in Mechanical/Industrial or other related engineering discipline having at least 10 (ten) years professional

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			experience in demand analysis. Which includes as follows: Market Access, SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, South Asian/Europe/Middle East etc. market analysis, market growth, competition, pricing analysis, criteria of unit cost & case scenarios, strategy of sales & marketing. S/he should have knowledge about feasibility study in the field of electrical technology & cable/wire production project.
6	Environmental Expert	01	Graduate in Environmental /Civil / Chemical /Mechanical Engineering having at least 10 (ten) years professional experience in relevant field
7	Economist	01	Graduate in Economics/CMA/CA having at least 10 (ten) years professional experience in relevant field

The consultant must visit XLPE Cable production factories and existing market & conduct survey with questionnaire, discuss with beneficiaries, use other methodologies (as agreed with cable factory) to collect required information. The consultant will give input to the survey, conduct For Group Decision (FGD) & apply other techniques to assess the national benefit of the project. Consultant Supervision Institute like BRTC of BUET/CUET/GOB Engineering institution will check the quality of the collected information i.e. overall survey final report.

F. Duration, Terms & Conditions:

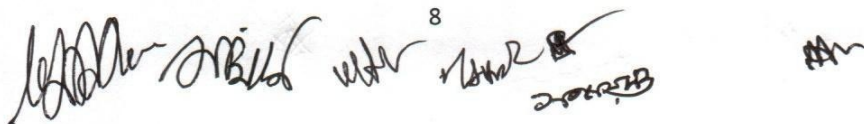
The assignment should be completed within 06(six) months from the date of the signing contract. The Firm/Institution will work in close co-operation with the Departmental Head, Production/Planning and other staff. They will be solely responsible and accountable to the Managing Director, ECL for their services and activities. As the contract is performance based, so the task will have to be completed within the stipulated time frame. Payments for the assignment will be payable on a report submitted reflecting the key outputs be certified by supervisor engineering institution i.e. BUET/CUET/RUET/ Govt. Engineering institution of Bangladesh.

G. Reporting Requirements/Deliverables:

During the contract, the consultant will submit report once in every two weeks and the final report will be certified by supervisor engineering institution i.e. BUET/CUET/RUET/ Govt. Engineering institution before the final approval. Updates on data collection and analysis should be provided once every two weeks, the final deliverable includes:

- a. Inception report: submit a detail of the proposed timing and methodology (including proposed sampling techniques; data collection methods; method of data

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processing, analysis, including detail of the statistical analysis etc.)

- b. Final survey methodology and field work itinerary
- c. Regular updates on progress and any problems encountered to ECL
- d. Debriefing of the studies with major findings,
- e. A publishable report reviewing the analysis and highlighting the major findings for ECL management.
- f. Design, Drawing & Layout i.e. basic engineering
- g. Utility requirement, gas, water, power system.

Final report contains the following information:	
1	Occupational Safety and Health (OSH) practices require in the proposed XLPE insulated cable plant
2	Techno economic XLPE voltage level up to 36 kv
3	List of complete copper plant's machineries with cost, country of origin, production rate, power consumption, lay out drawing
4	Whole factory, shade drawing i.e. basic engineering
5	Modern and digital testing lab machineries with cost and skill or knowledge level develop facilities
6	Details set up of the total manpower require with knowledge & skill level.
7	Uninterrupted Power supply facilities by PDB/Generator/Renewable energy or all of combination.
8	Total investment cost scenario for the project
9	Return on investment (ROI) of the proposed project
10	Market demand analysis for XLPE insulated cable
11	Prevention of counterfeit ECL products at low cost in electric cable market
12	Production flow , process flow, production mix
13	Keeping raw material storage
14	Security system like fire extinguisher, fire alarm, IEE ,EIA, EMP, ETE, WTP, ETP as required
15	List of related and required training in abroad or local to develop our manpower's skill & knowledge
16	Sample based XLPE cable's breakdown of per unit selling prices
17	Details of raw material with country of origin and source
18	Identify prevention of counterfeit ECL products at low cost in electric cable market

H. Final Outputs Required from the Consultant and Delivery Schedule:

01. Suggestion of the plant set up for XLPE voltage rating up to 36 kv in ECL
02. Final report has to meet all the requirements as per proposed proposal according to TOR. The supervision consultant Universities / Institutes like CUET/BUET/RUET/KUET/BIM/BCSIR or any other Govt. Engineering Institution will check and certify to approve the final report. After certified by Universities / Institutes or any other Govt. Engineering Institution assigned committee will check the final report & recommend for correction (if any corrective measures required) or forwarded for approval from proper authority.



Assigned committee member (Not as per seniorities)

Sl No	Designations	Remarks
01	Director, Planning & Development, BSEC	The senior most officers will be functioned as Chairman of the Committee.
02	Representative from Ministry of Industries.	
03	Representative from CUET/BUET	
04	Representative from Power Division, Ministry of Power, Energy & Mineral Resources.	
05	Managing Director of ECL	
06	Head of Production, ECL	
07	Head of Planning & Training, ECL	Member Secretary

03.Fill-up the Delivery Schedule within 06 (six) months from the date of contract signing

Delivery Time-based Schedule

Evaluation activities/Task	Time Frame for the task/activities
Inception report: submit a detail outline of the proposed timing, methodology and details work plan etc.	
Finalize sample, collection methodology, checklist and field visit itinerary in consultation with ECL	
Data processing, editing and analysis	
Prepare draft report, design, drawing and layout submit to ECL	
Incorporate ECL comments and include supplemental data (if needed)	
Submit final report in hard and soft copy and any additional raw data and documentation in soft copy to ECL.	
Other activities or task if required	

The assignment should be completed within 06 (six) months of signing the contract. ECL will provide required project related documents after signing the contract.

I. Data, Services and Facilities to be provided by ECL

- a. ECL will provide only relevant program documents including project concept paper.
- b. Procedure for Review of Progress Reports, Inception, Status, Final Draft and Final Reports / Out-comes (to be included if applicable)

