

ASSAM ELECTRICITY GRID CORPORATION LIMITED

Regd. Office: 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001

CIN: U40101AS2003SGC007238

Ph:- 0361-2739520/Fax:-0361-2739513 Web: www.aegcl.co.in



**Backbone of Assam
Power Network**

BID IDENTIFICATION NO: AEGCL/DGM/LAC/TT/TLS-69/2023/688 ; Dated: 10/07/2023

Bidding Document
For

**Supply of 33KV 1 (single) core X 300 sqmm armoured aluminum XLPE cable at 132KV
Kahilipara GSS.**

**DEPUTY GENERAL MANAGER,
LOWER ASSAM T&T CIRCLE, AEGCL
NARENGI, GUWAHATI-26.**

SECTION - 1
INSTRUCTION TO BIDDER

1.1.0 SCOPE OF BID :-

1.1.1. The **Deputy General Manager, Lower Assam, T&T Circle, AEGCL** on behalf of **Assam Electricity Grid Corporation Ltd**, hereinafter referred to as AEGCL or Purchaser invites sealed tenders in prescribed form, from reputed firms/ contractors/ manufacturers with sound technical and financial capabilities for the following work. A single stage two envelope procedure (**Techno-Commercial and Price Bid**) will be adopted for this tender.

- a) **NAME OF WORK :- Supply of 33KV 1 (single) core X 300 sqmm armoured aluminum XLPE cable at 132KV Kahilipara GSS.**
- b) **ESTIMATED VALUE FOR THE WORK :- Rs. 6,38,793.00 (Rupees Six Lakh Thirty Eight Thousand Seven Hundred and Ninety Three) only including taxes.**
- c) **Fund: O&M HQ (LAR) for FY 2023-24**
- d) **Key Dates: Refer to NIT.**
- e) **Bidding address :-**
O/o The Deputy General Manager
Lower Assam, T&T Circle, AEGCL,
Narengi.Guwahati-26

[e-mail: dgmtdc.guwahati@aeqcl.co.in]
- f) Bidders may obtain further information from the office of the Deputy General Manager, Lower Assam T&T Circle, AEGCL, Narengi, Guwahati - 781026, Assam.
- g) **Cost of Bidding :-** The bidder shall bear all costs associated with the preparation and submission of its bid and AEGCL will in no case be responsible or liable for those costs. **The cost of the tender paper is Rs. 1000/- (Rupees One Thousand) only to be pledged in favour of "AEGCL, Guwahati" (in the form of A/C payee DD/Bankers Cheque).**

1.2.0 BIDDING PROCEDURE :-

Two envelope bidding procedure will be adopted. Bidders are to submit two sealed envelopes simultaneously, one containing the technical & Commercial proposal, Part-I (Technical & Commercial Bid) and the other containing the price proposal Part-II (Price Bid), enclosed together in one sealed envelope. Initially, only the Part-I bids shall be opened. Part-I proposals submitted by bidders, which do not conform to the specified requirement, may be rejected as deficient bids. The Part-II (Price Bid) proposals of technically qualified bidders will be opened at a date and time, which will be informed to all the qualified bidders of Part-I.

1.3.0 SCOPE OF WORK :-

1.3.1 The brief description of the scope of work covered under this bidding document is furnished below:

- a. Design and supply of 33KV 1 (single) core X 300 sqmm armoured aluminium XLPE cable (3 x 100 mtr cable drums) at 132KV Kahilipara GSS as per bid specification and BOQ.
- b. Loading at manufacturer's works, transportation and delivery at the substation site, including unloading at destination site.
- c. Freight & Transit Insurance, storage at site and site insurance of all materials at site shall be in the scope of the contractor.
- d. Arrangements of any permits required for transportation and movement of supplied materials. However, AEGCL shall assist as far as practicable in the process.

1.3.2 The Bill of Quantities for indicative purposes is furnished in Price Schedules.

- 1.3.3 The items mentioned in this Annexure shall only be used while quoting the bid prices. Any other items not specifically mentioned in the specification but which are required for installation, testing, commissioning and satisfactory operation of the cable as per Indian Standards/IE Rules/IE Act and concerned authority regulations are deemed to be included in the scope of the specification and no deviation in this regard shall be accepted.
- 1.3.4 No modifications/additions/ deletions shall be made by the bidder to the items and quantities given in these schedules.
- 1.3.5 The successful bidder will be expected to complete the works within **60 days from the date of receipt of drawing approval**. Bidders should note that time is the essence of this bid.
- 1.4.0 ELIGIBILITY CRITERIA OF THE BIDDER:**
- 1.4.1 A Bidder may be a private entity or a government-owned entity. However, **no Joint Venture Bid shall be allowed**.
- 1.4.2 A Bidder shall have Indian nationality. A Bidder shall be deemed to have the nationality of a country if the Bidder is a national or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of Republic Of India.
- 1.4.3 AEGCL considers a **conflict of interest** to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest may contribute to or constitute a prohibited practice under Anticorruption Policy of Government of India and Government Of Assam. In pursuance Anticorruption Policy's requirement that Employer as well as bidders, suppliers, and contractors observe the highest standard of ethics. AEGCL will take appropriate actions if it determines that a conflict of interest has flawed the integrity of any procurement process.
- 1.4.4 A firm that is under a declaration of ineligibility by the AEGCL or any Government Entity or PSU at the date of the deadline for bid submission or thereafter i.e. on or before contract signing date shall be disqualified. Bidders shall provide such evidence of their continued eligibility satisfactory to the AEGCL, as the Employer shall reasonably request.
- 1.5.0 FINANCIAL CAPABILITY**
- 1.5.1 Bidder will require to submit along with the bid the audited balance sheets and other legal financial statements acceptable to AEGCL, for the last 3 (three) years to demonstrate the current soundness of the Bidders financial position and its prospective long term profitability. As a minimum, an Applicant's net worth calculated as the difference between total assets and total liabilities should be positive. Wherever necessary the Employer may make enquiries with Bidder's bankers.
- 1.5.2 Average Annual Turnover : Minimum average annual turnover should be atleast 50% of the estimated value as calculated on total certified payments received for contracts in progress or completed, within the last 3 (Three) Years.
- 1.5.3 Financial Resources: Bidder need to demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet:
- (1) the cash-flow requirement of atleast 30% of the work value and
 - (2) the overall cash flow requirements for this contract and its current works commitment.
- 1.5.4 Bidder must keep GST liabilities up to date and non-payment of GST liabilities and non-filing of relevant GST return more than 3 (three) months shall be reckoned as GST defaulter and this may be considered a cause for disqualification of a bidder and the bid may be rejected.
- 1.6.0 EXPERIENCE:**
- 1.6.1 Experience on similar nature of works under contracts in the role of manufacturers, contractor, subcontractor, or management contractor for at least the last 5 (five) years prior to the bid submission deadline.
- 1.6.2 **Bidder may be manufacturer of the offered products or a firm/company having authorisation from a manufacturer. In case the bidder is not a manufacturer of the offered products, bidder must submit manufacturer's authorisation using for that purpose Form-MA provided in Section-2 Bidding forms.**

- 1.6.3 Participation as manufacturer/ contractor Experience having successfully completed similar works during last 5 years ending last day of the month previous to the one in which applications are invited should be either of the following:
- (a) Three (3) similar completed works costing not less than 40% of total estimated cost.
 - (b) Two (2) similar completed works costing not less than 50% of total estimated cost.
 - (c) One (1) similar completed works costing not less than 80% of total estimated cost.
- 1.6.3 The Bidder must have experience of executing work of similar nature previously in AEGCL/APDCL/APGCL or in any other Govt. PSU or organisation. The bidder must submit experience and completion certificate for scrutiny by AEGCL. Each of such project/ works should consist of completion certificate.
- 1.7.0 LITIGATION HISTORY**
- 1.7.1 Bidders shall submit details of all litigation, arbitration or other claims, whether pending, threatened or resolved in the last five years, with the exception of immaterial claims with a cumulative impact of not more than 10% of their total assets. The Employer may disqualify bidders in the event that the total amount of pending or threatened litigation or other claims represent more than 50% of their total assets.
- 1.8.0 DOCUMENTS COMPRISING THE BID**
- 1.8.1 The bid submitted by the bidder shall comprise two envelopes submitted simultaneously, one containing only the technical proposal and the other the price proposal.
- 1.8.2 **The Technical Bid submitted by bidders shall contain the following:**
- a) Bid Submission Sheet
 - b) Documentary evidence to establish that the Bidder meet the qualifying requirements in accordance with Clause 1.5.0.
 - c) Documents to be furnished as per Clause 1.9.3
 - d) The Bid Security in accordance with Clause 1.20.0 & its sub clauses of this Section.
 - e) All Bidding Schedules properly filled up including Price Bid Schedules.
 - f) All other information and documents such as Guaranteed and Technical Particulars, type test reports, drawings, technical leaflets etc, as required in the Technical Specification
- 1.8.3 To establish its eligibility and qualifications to perform the contract, the bidder shall provide along with the above mentioned documents the following additional documents (mandatory) on qualifying requirements such as:
- a) *Copies of original documents defining the constitution or legal status, place of registration, and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder.*
 - b) *Copies of valid Trade License issued by competent authority in the State of Assam or in the State where the bidder's business is registered.*
 - c) *Copies of PAN, GST Registration Certificate as per Goods & Services Tax laws.*
 - d) *Total monetary value of similar work performed by the bidder in the last five years.*
 - e) *Experience in works of a similar nature and volume for each of the last five years, and details of works under way or contractually committed in AEGCL or any other Govt. entity/PSU who may be contacted for further information on those contracts.*
 - f) *Qualifications and experience of key site management and technical personnel proposed for the Contract.*
 - g) *Reports on the financial standing of the Bidder, such as profit and loss statements and audited annual accounts certified by CA of the company for the last three years including IT return duly acknowledged by the tax department for the last three years.*
 - h) *Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources).*
 - i) *Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount.*

- 1.8.4 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements.
- 1.8.5 Notwithstanding anything stated herein above, AEGCL reserves the right to assess the capacity and capability of the bidder to execute the work, should the circumstance warrant such assessment in the overall interest of AEGCL.
- 1.9.0 DOCUMENTS ESTABLISHING CONFORMITY OF THE GOODS AND SERVICES**
- 1.9.1 The documentary evidence of the conformity of the goods and services to the Bidding Document may be in the form of literature, drawings and data, and shall furnish:
- a) A detailed description of the essential technical and performance characteristics of the goods and services, including the functional guarantees of the Goods, in response to the Specification;
 - b) A commentary on the Purchaser's Specification and adequate evidence demonstrating the substantial responsiveness of the plant and services to those specifications. Bidders shall note that standards for workmanship, materials and equipment designated by the Purchaser in the Bidding Document are intended to be descriptive (establishing standards of quality and performance) only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalog numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions are substantially equivalent or superior to the standards designated in the Specification.
- 1.10.0 CLARIFICATION ON BIDDING DOCUMENTS :-**
- 1.10.1 A prospective bidder requiring any clarification of the bidding documents may notify AEGCL in writing at the following address-
- Deputy General Manager, Lower Assam T&T Circle, AEGCL, Narengi, Guwahati-26**
- AEGCL will respond to any request for clarification which it receives earlier than 7 (**seven**) days prior to the deadline for submission of bids.
- 1.10.2 Verbal clarification and information given by AEGCL or its employee(s) or representative (s) shall not in any way be binding on AEGCL.
- 1.11.0 AMENDMENT OF BIDDING DOCUMENTS**
- 1.11.1 At any time prior to the deadline for submission of bids, the AEGCL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by issuing addenda.
- 1.11.2 Any addendum thus issued shall be part of the bidding documents pursuant to Sub-Clause, and shall be communicated in writing or by fax to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by fax to AEGCL.
- 1.12.0 LANGUAGE OF BID**
- 1.12.1 The bid, and all correspondence and documents related to the bid, exchanged between the bidder and AEGCL shall be written in the English language. Supporting documents and printed literature furnished by the bidder shall also be in English language.
- 1.13.0 BID FORM AND PRICE SCHEDULES**
- 1.13.1 The Bidder shall complete the Bid Form and the appropriate Price Schedules furnished in the bidding documents in the manner and detail indicated therein.
- 1.14.0 BID PRICES**
- 1.14.1 Bidders shall give a breakdown of the prices in the manner and detail called for in the **Schedules of Prices**.
- 1.14.2 Plant and equipment (**Schedules of Prices**) shall be quoted on an EXW (ex-factory, ex-works, ex-warehouse or off-the-shelf, as applicable). All taxes and duties taxes as applicable and freight and insurance shall be indicated separately.
- 1.14.3 Price Adjustment: Prices quoted by the Bidder shall be FIRM during performance of the contract. Duties and Taxes shall be adjusted, except there is variation due to changes in legislation of the Country.

1.15.0 INSURANCE

The Bidder shall insure the Works/Materials (in transit and at the site) in accordance with the requirements of General Conditions of Contract. The Bidder shall provide details of the policies that he intends to take out as part of his Bid submission. **The bid price shall include all costs in pursuance of fulfilling insurance liabilities under the contract.**

1.16.0 BID VALIDITY

1.16.1 Bids shall remain valid for a period of **180 (One Eighty)** days after the date of opening of Technical Bids.

1.16.2 In exceptional circumstances, prior to expiry of the original bid validity period, AEGCL may request that the bidders extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting its bid security. A bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to extend the validity of its bid security for the period of the extension, and in compliance with Clause 1.19.0 in all respects.

1.17.0 BID SECURITY (EARNEST MONEY)

1.17.1 **The Bidder shall furnish, as part of its bid with the Technical Proposal, a bid security in the amount of Rs. 12,800.00 (Rupees Twelve Thousand Eight Hundred) only.**

1.17.2 For participation in the bidding procedure, participants must compulsorily pay the Bid Security / Earnest Money Deposit in the form of DD/Fixed Deposit/bank Guarantee/Banker's Cheque in favour of AEGCL, Guwahati. The bid security shall remain valid for 90 days beyond the original validity period for the bid, and beyond any period of extension subsequently requested.

1.17.3 Any bid not accompanied by an acceptable bid security shall be rejected as non-responsive.

1.17.4 The bid securities of unsuccessful bidders will be returned as promptly as possible, against written request from the unsuccessful bidders.

1.17.5 The bid security of the successful bidder will be returned when the bidder has signed the Contract Agreement and furnished the required performance security.

1.17.6 The bid security may be forfeited

(a) if the bidder withdraws its bid, except as provided in Sub-Clause 1.24.1;

(b) if the bidder does not accept the correction of its bid price, pursuant to Sub-Clause 1.24. or

(c) in the case of a successful bidder, if it fails within the specified time limit to

(i) sign the Contract Agreement,

(ii) furnish the required performance security.

1.17.7 No interest shall be payable by AEGCL on the above bid guarantee.

1.18.0 ALTERNATIVE PROPOSALS BY BIDDERS

1.18.1 Bidders shall submit offers, which comply with the Bidding Documents, including the basic AEGCL's Requirements as indicated in the bidding documents. Alternatives will not be considered. The attention of bidders is drawn to the provisions of Clause 1.29.0 regarding the rejection of bids which are not substantially responsive to the requirements of the bidding documents.

1.19.0 FORMAT AND SIGNING OF BID

1.19.1 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person or persons duly authorized to sign on behalf of the bidder. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.

1.19.2 The bid shall contain no alterations, omissions or additions, except those to comply with instructions issued by AEGCL, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

1.19.3 The Bid must contain the name, residence and place of business of the person or persons making the Bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

- 1.19.4 Bids by Corporation / Company must be signed with the legal name of the Corporation/Company by the President, Managing Director or by the Secretary or other person or persons authorized to Bid on behalf of such Corporation/Company in the matter.
- 1.19.5 A Bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent', or other designation without disclosing his principal will be rejected.
- 1.19.6 Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the Bid.
- 1.19.7 The Bidder's name stated on the proposal shall be exact legal name of the firm
- 1.19.8 Bids not conforming to the above requirements of signing may be disqualified.
- 1.19.9 If the outer envelope is not sealed and not marked as above, AEGCL will assume no responsibility for the misplacement or premature opening of the bid.
- 1.19.10 The Bid must be accompanied with requisite BID SECURITY in a separate sealed cover.
- 1.19.11 The Bidders have the option of sending the Bids by post/courier or in person. Bids submitted by Telex/Telegram/Fax will not be accepted. No request from any Bidder to AEGCL to collect the proposal from Airlines/Cargo Agents etc shall be entertained by AEGCL.
- 1.20.0 DEADLINE FOR SUBMISSION OF BIDS**
- 1.20.1 Bids must be received by AEGCL at the address specified above no later than refer to NIT.
- 1.20.2 AEGCL may, at its discretion, extend the deadline for submission of bids by issuing an addendum in accordance with Clause 1.13.0, in which case all rights and obligations of AEGCL and the bidders previously subject to the original deadline will thereafter be subject to the deadlines extended.
- 1.21.0 LATE BIDS**
- 1.21.1 Any bid received by AEGCL after the deadline for submission of bids prescribed in Clause 1.22.0 will be rejected and returned unopened to the bidder.
- 1.22.0 WITHDRAWAL OF BIDS**
- 1.22.1 The bidder may withdraw its bid after bid submission, provided that written notice of the withdrawal is received by AEGCL prior to the deadline for submission of bids.
- 1.22.2 The bidder's withdrawal notice shall be prepared, sealed, marked and delivered with the envelopes additionally marked "WITHDRAWAL".
- 1.22.3 Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in Sub-Clause 1.18.0 may result in the forfeiture of the bid security pursuant to Sub-Clause 1.19.6.
- 1.23.0 OPENING OF BIDS**
- 1.23.1 AEGCL will open bid, in the presence of bidders' representatives who choose to attend; at the following location:
O/o the Deputy General Manager,
Lower Assam T&T Circle, AEGCL,
Narengi, Guwahati-26
- The bidders' representatives who are present shall sign a register evidencing their attendance.
- 1.23.2 Envelopes marked "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 1.24.0 shall not be opened.
- 1.23.3 The bidders' names, the Bid Prices, the presence or absence of Bid Security, and such other details as AEGCL may consider appropriate, will be announced and recorded by AEGCL at the opening. The bidders' representatives will be required to sign this record.
- 1.24.0 PROCESS TO BE CONFIDENTIAL**
- 1.24.1 Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such

process. Any effort by a bidder to influence AEGCL's processing of bids or award decisions may result in the rejection of the bidder's bid.

1.25.0 PRELIMINARY EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

- 1.25.1 Prior to the detailed evaluation of bids, AEGCL will examine the bids to determine whether they are complete and all documents as per Clause 1.9.0 are provided or not, whether the documents have been properly signed, whether the required security is included, and whether the bids are generally in order and provides any clarifications and/or substantiation that AEGCL may require pursuant to Clause 1.27.0.
- 1.25.2 A substantially responsive bid is one which conforms to all the terms, conditions and requirements of the bidding documents, without material deviation or reservation and includes the amendments and changes, if any. AEGCL may waive any minor non-conformity or irregularity in a Bid which does not constitute a material deviation or reservation, provided such deviation or reservation does not (i) affect in any substantial way the scope, quality or performance of the Works; (ii) limit in any substantial way, inconsistent with the bidding document, AEGCL's rights or bidder's obligations under the contract; or (iii) whose rectification would affect unfairly the competitive position of other bidder's presenting substantially responsive bids.
- 1.25.3 Any bids found to be non-responsive for any reason or not meeting the minimum levels of the performance or other criteria specified in the bidding documents will be rejected by AEGCL and not included for further consideration.

1.26.0 CLARIFICATION OF BID PROPOSALS AND CONTACTING AEGCL

- 1.26.1 To assist in the examination, evaluation and comparison of Bids, AEGCL may, at its discretion, ask any bidder for clarification of its bid. The request for clarification and the response shall be in writing or by mail, but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by AEGCL in the evaluation of the bids in accordance with Clause 1.28.0.
- 1.26.2 Subject to Sub-Clause 1.28.1, no bidder shall contact AEGCL on any matter relating to its bid from the time of opening Bids to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of AEGCL, it should do so in writing.
- 1.26.3 Any effort by the bidder to influence AEGCL in AEGCL's evaluation of price proposals, bid comparison or contract award decisions may result in the rejection of the bidder's bid.

1.27.0 CORRECTION OF ERRORS

- 1.27.1 Price Proposals determined to be substantially responsive will be checked by AEGCL for any arithmetic errors. Arithmetic errors will be rectified on the following basis. If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate shall prevail and the total cost will be corrected unless in the opinion of AEGCL there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate corrected. If there is a discrepancy between the total bid amount and the sum of total costs, the sum of the total costs shall prevail and the total bid amount will be corrected.
- 1.27.2 The amount stated in the Form of Bid for Price Proposal will be adjusted by AEGCL in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bid security may be forfeited in accordance with Sub-Clause 1.19.6 (b).

1.29.0 EVALUATION AND COMPARISON OF BID PROPOSALS

- 1.29.1 AEGCL will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 1.27.0.
- 1.29.2 For equipment and materials, the comparison shall be of the ex-factory price of equipment and materials offered (such price to include all costs as well as duties and taxes paid or payable on components and raw material incorporated); plus the cost of transportation, local taxes and duties, civil works, installation and other services required under the contract with due corrections as per Clause 1.29.0, AEGCL's comparison will also include the costs if any, resulting from application of the evaluation procedures described in Sub-Clause 1.30.4.
- 1.29.3 AEGCL will carry out a detailed evaluation of the bids in order to determine whether the bidders are qualified and whether the technical aspects are substantially responsive to the requirements set forth in the bidding documents. In order to reach such a determination, AEGCL will examine the information supplied by the Bidders and other requirements in the bidding documents, taking into account the following factors:

- (a) Qualification
 - (i) the determination will take into account the Bidder's financial and technical capabilities and past performance; it will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to Clause 1.5.0 as well as such other information as AEGCL deems necessary and appropriate; and
 - (ii) an affirmative determination will be a prerequisite for AEGCL to continue with the evaluation of the proposal; a negative determination will result in rejection of the Bidder's bid.
- (b) Technical
 - (i) overall completeness and compliance with AEGCL's Requirements; the technical merits of materials and equipment offered and deviations from AEGCL's Requirements; suitability of the facilities offered in relation to the environmental and climatic conditions prevailing at the site; quality, function and operation of any process control concept included in the bid;
- (c) Commercial
 - (i) Deviations and omissions from the contractual and commercial conditions as identified in the Bid.
 - (ii) compliance with the time schedule called for in the Bidding Document and evidenced as needed in a milestone schedule provided in the bid; and
 - (iii) the functional guarantees of the facilities offered against the specified performance criteria of the plant and equipment.

1.29.4 Pursuant to Sub-Clause 1.30.4, the following evaluation methods will be followed:

- (a) **Time Schedule:** The plant and equipment covered by this bidding are required to be shipped, installed and the facilities completed within the period specified in Sub-Clause
Bidders submitting bids which deviate from the time schedule specified will be rejected.
- (b) **Deviations from the Bidding Document:**
Bidders shall base their Bid price on the terms & conditions specified in the Bidding Documents.
Bids with material deviations and omissions shall be rejected.
- (c) **Functional Guarantee of the facilities:**
Bidders shall state the functional guarantees (e.g. guaranteed performance or ratings or efficiency) of the proposed Goods in response to AEGCL's Requirements (Technical Specifications). Goods, Plant and equipment offered shall have a minimum performance (functional guarantees/ratings) specified in the Technical Specifications to be considered responsive. Bids offering Goods, plant and equipment with functional guarantees less than the minimum specified shall be rejected.

1.29.5 **Bid Evaluation Process for Abnormally Low Bids:**

The following methodology will be practiced for identification and treatment of the Abnormally Low Bids (ALB) in this tender process of AEGCL:

- (a) Identification:
 - For the identification of the Abnormally Low Bids, two approaches as applicable shall be adopted:
 - i. **Absolute Approach** when there is fewer than five substantially responsive bidders and if the bid price is 20% or more below AEGCL's cost estimate then AEGCL's tender evaluation committee should clarify the Bid price with the bidder to determine whether the Bid is abnormally low.
 - ii. **Relative Approach** is a statical comparison method which will be applied when there are more than five nos. of substantially responsive bids. A potential ALB is identified where the low Bid is more than one standard deviation below the average of substantially responsive bids received.

In this approach first the Average bid price is determined and then by deducting the standard deviation from the average bid price, potentially ALB may be determined.
- (b) In case of ALB, the tender evaluation committee of the respective tenders shall undertake the following three stage review which are as follows:
 - i. Identify ALB as per the step mentioned in Clause No.(a).(i) and 10.b).(ii) whichever is applicable.
 - ii. Clarify and analyse the bidders resource inputs and pricing, including overheads, contingencies and profit margins. In that respect committee may seek the reference of the guidelines of World Bank, AIIB, ADB

etc.

iii. Decide whether to accept or reject the tender.

(c) Additional Performance Security in case of acceptance of ALB:

i. If any abnormally low bid is accepted under point no. (b) (iii), after taking of additional performance security as per the assessment of the committee, however the total performance security should not have to exceed 20% of the total contract value.

ii. The additional performance security shall be treated as part of the original performance security and shall be valid for a period coextensive with the applicable defect liability period of the contract.

iii. Non submission of the additional performance security shall constitute sufficient ground to rejection of the bid and similar assessment shall be initiated for the next ranked bidder identified as ALB.

1.29.6 AEGCL reserves the right to accept or reject any variation or deviation. Variations, deviations, and other factors which are in excess of the requirements of the bidding documents or otherwise result in the accrual of unsolicited benefits to AEGCL shall not be taken into account in bid evaluation.

1.30.0 AWARD

1.30.1 AEGCL will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents provided that such bidder has been determined to be qualified in accordance with the provisions of the Bid.

1.31.0 EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

1.31.1 Notwithstanding Clause 1.31.0, AEGCL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for AEGCL's action. AEGCL is not bound to accept the offer of the lowest bidder.

1.32.0 NOTIFICATION OF AWARD

1.32.1 Prior to expiration of the period of bid validity prescribed by AEGCL, AEGCL will notify the successful bidder by fax, confirmed by letter, that its bid has been accepted. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") shall name the sum which AEGCL will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called "the Contract Price").

1.32.2 The notification of award will constitute the formation of the Contract.

1.33.0 SIGNING OF CONTRACT AGREEMENT

1.33.1 At the same time that it notifies the successful bidder that its bid has been accepted, AEGCL will send the bidder the Form of Contract Agreement incorporating all agreements between the parties.

1.33.2 Within **15 (fifteen) days** of receipt of the Form of Agreement, the successful bidder shall sign the Form and return it to AEGCL.

1.34.0 WARRANTY

1.34.1 The contractor warrants that all goods are new, unused and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The term period of warranty shall mean the period of **18 months** from the date of the materials are received at site in good and acceptable condition. If during the period of warranty, any defect is found, the Contractor shall rectify all defects in design, materials and workmanship that may develop under normal use of the equipment upon written notice from the Purchaser who shall indicate in what respects the equipment is faulty. The rectification / free replacement must be carried out within a reasonable time period and at free of cost.

1.34.2 In the event of any emergency, where in the judgment of AEGCL, delay would cause serious loss or damages, repairs or adjustment may be made by the engineer or a third party chosen by the engineer without advance notice to the contractor and the cost of such work shall be paid by the contractor. In the event such action is taken by the

engineer, the contractor will be notified promptly and he shall assist wherever possible in making necessary corrections. This shall not relieve the contractor of his liabilities under the terms and conditions of the contract.

- 1.34.3 If it becomes necessary for the contractor to replace or renew any defective portions of the works, the provision of this clause shall apply to portion of the works so replaced or renewed until the expiry of eighteen (18) months from the date of such replacement or renewal.
- 1.34.4 The repaired or new parts will be furnished and erected free of cost by the contractor. If any repair is carried out on his behalf at the site, the contractor shall bear the cost of such repairs.
- 1.34.5 The acceptance of the equipment by the Employer shall in no way relieve the contractor of his obligation under this clause.
- 1.34.6 In the case of those defective parts, which are not repairable at site but are essential for the commercial operation of the equipment, the contractor and the engineer shall mutually agree to a programme of replacement or renewal, which will minimize interruption to the maximum extent in the operation of the equipment.

1.35.0 PERFORMANCE SECURITY (Contract Performance Guarantee)

- 1.35.1 As a Contract Performance Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a Performance Guarantee from a Nationalized Bank, in the form attached with the Bidding Document (Section –5) in favour of the AEGCL. The guarantee amount shall be equal to ten percent (10%) of the Contract Price and it shall guarantee the faithful performance of the contract in accordance with the terms and conditions specified in these documents and specifications. The guarantee shall be valid up to 90 (ninety) days after the end of Warranty Period.
- 1.35.2 In case the bidder fails to submit the Performance Security in the form of Bank Guarantee, an amount equivalent to 10% of the Contract Price shall be retained as Security Deposits which shall be retained up to 90 (ninety) days after the end of Warranty Period
- 1.35.3 The performance guarantee shall cover additionally the following guarantees to the owner:
- a) The successful Bidder guarantees the successful and satisfactory operation of the equipment furnished and erected under the contract, as per the specifications and documents.
 - b) The successful Bidder further guarantees that the equipment/material provided and installed by him shall be free from all defects in design, material and workmanship and shall upon written notice from the Owner fully remedy must be guaranteed.
- 1.35.4 The Contract performance Guarantee will be returned to the Contractor without any interest at the end of warranty period and written request from the contractor.

1.36.0 TERMS OF PAYMENT

- 1.36.1 The terms of payment for the supply work shall be as follows
- i. No advance payment shall be made in this contract.
 - ii. No claim for interest shall be entertained by AEGCL
 - iii. The price is firm and no price variation shall be applicable.
 - iv. Final bill must contain the original site register.
 - v. Payment shall be released against receipt of materials in full and good condition at site. The Bidder / Firm will have to be submitted the following Net Banking details.
 - a) Banker's Name & Branch
 - b) Account No
 - c) Banker's address
 - d) Banker's IFSC Code
 - e) Banker's RTGS Code

1.37.0 CORRUPT OR FRAUDULENT PRACTICES

- 1.37.1 It is required that bidders/suppliers/contractors observe the highest standard of ethics during the procurement and execution of the contracts. In Pursuance of this Clause AEGCL;
- (a) defines, for the purposes of this provision, the terms set forth below as follows:

- (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and
- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;
- (b) will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by AEGCL if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract.

1.38.0 PENALTY FOR DELAYED EXECUTION

1.38.1 In the event of delay in completing the work extending beyond the date of completion or beyond the extended date, if any, permitted by the Board, the contractor shall pay as agreed liquidated damage and not as a penalty a sum equal to 1% of the contract price under this contract for each week of delay or part thereof subject to a maximum of 10% of the contract price.

1.39.0 FORCE MAJEURE

1.39.1 Force Majeure shall be considered as any circumstances beyond the reasonable control of the party claiming relief, including but not limited to strikes lockout, civil commotion, riot, insurrection, hostilities, war, fire, flood, earthquake, delay in delivery of equipments or part thereof by AEGCL, would entitle contractor to extension of time.

1.40.0 SETTLEMENT OF THE DISPUTE & ARBITRATION

1.40.1 Any dispute arising out of the contract will first be discussed and settled bilaterally between the Assam Electricity Grid Corporation Limited and firms/ contractors. In case, the dispute cannot be settled bilaterally, it will be referred to arbitration by an arbitrator to be appointed by the AEGCL, The contractor shall not stop the work during settlement of any arbitration case. All disputes arising out of the agreement so made shall be subjected to the jurisdiction of district court of Kamrup District.

SECTION-2

PURCHASER'S REQUIREMENTS

2.1.0 SCOPE OF WORK:

- 2.1.1 This section of the specification deals with the technical information & criteria for "Procurement of 33kV 1 (single) core X 300sqmm armoured aluminium XLPE cable at 132KV Kahilipara GSS, AEGCL". The Contractor's proposal shall be based on the use of materials complying fully with the requirements specified herein. The work involves design, engineering, manufacture, assembly, inspection, testing at manufacturer's works before dispatch, packing, supply, including insurance during transit, delivery at site of various equipment and materials including substation steel structures as specified in subsequent Clauses and Sections.
- 2.1.2 It is not the intent to specify completely herein all details of design and construction of the equipment and accessories. However, the equipment and accessories shall conform in all respects to high standards of engineering, design and workmanship and be capable of performing in continuous operation up to the bidder's guarantees in a manner acceptable to the Purchaser. The Purchaser will interpret the meaning of drawings and specifications and shall be entitled to reject any work or material, which in his judgment is not in full accordance therewith.
- 2.1.3 The various items of supply are described very briefly in the schedule of Bid Form, Prices & Other Schedules and annexure. The various items as defined in these schedules shall be read in conjunction with the corresponding section in the technical specifications including amendments and, additions if any.

2.2.0 CONTRACTOR TO INFORM HIMSELF FULLY

- 2.2.1 The contractor should admit that he has examined the general condition of contract, specifications and schedule and has satisfied as to all the conditions and circumstances affecting the contract prices and fixed his price according to his own views on these matters and acknowledge that no additional allowances except as otherwise provided therein will be levied. The purchaser shall not be responsible for any misunderstanding or incorrect information obtained by the contractor other than information given to the contractor in writing by the purchaser.

2.3.0 STANDARDS

- 2.3.1 The equipment covered under this bidding document shall, unless otherwise stated be designed, constructed and tested in accordance with the latest revisions of relevant Indian Standards and shall conform to the regulations of local statutory authorities. In case of any conflict between the standards and this specification, this specification shall govern.
- 2.3.2 Equipment conforming to other international or authoritative Standards which ensure equivalent or better performance than that specified under Clause 3.6.0 above shall also be accepted. In that case relevant extracts of the same shall be forwarded with the bid.

2.4.0 ENGINEERING DATA

- 2.4.1 The furnishing of engineering data by the Contractor shall be in accordance with the Bidding Document. The review of these data by the Employer will cover only general conformance of the data to the specifications and not a thorough review of all dimensions, quantities and details of the materials, or items indicated or the accuracy of the information submitted. This review by the Employer shall not be considered by the Contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these specifications.
- 2.4.2 All engineering data submitted by the Bidder after final process including review and approval by the Employer shall form part of the Contract Document and the entire works performed under these specifications shall be performed in strict conformity, unless otherwise expressly requested by AEGCL in Writing.

2.5.0 DRAWINGS AND DOCUMENTS FOR APPROVAL

- 2.5.1 All necessary drawings and documents required for completion of the project is to be submitted by the contractor for approval. The drawings provided with bid (if any) are for indicative purpose only and fresh drawings are to be prepared by the contractor as per actual site condition after survey. The drawings and documents are to be approved by AEGCL before procurement or commencement of work.

- 2.5.2 All drawings submitted by the Contractor including those submitted at the time of Bid shall be with sufficient detail to indicate the type, size, arrangement, dimensions, material description, Bill of Materials, weight of each component break-up for packing and shipment, fixing arrangement required, the dimensions required for installation and any other information specifically requested in these specifications.
- 2.5.3 Each drawing submitted by the Contractor shall be clearly marked with the name of the Employer, the specification title, the specification number and the name of the Project. All titles, noting, markings and writings on the drawing shall be in English. All the dimensions should be to the scale and in S.I. units.
- 2.5.4 **The Bidder shall submit 4(four) sets of drawings/ design documents/ data/ test reports as may be required for the approval of AEGCL.** One print of such drawings shall be returned to the Contractor by the Employer marked "approved/approved with corrections". The contractor shall there upon furnish the Employer additional prints as may be required along with one reproducible in original of the drawings after incorporating all corrections.
- 2.5.5 The Contractor shall perform the work strictly in accordance with these drawings and no deviation shall be permitted without the written approval of the Employer, if so required.
- 2.5.6 All manufacturing, fabrication and erection work under the scope of Contractor prior to the approval of the drawings shall be at the Contractor's risk. The contractor may make any changes in the design which are necessary to conform to the provisions and intent of the contractor and such changes will again be subject to approval by the Employer.
- 2.5.7 The approval of the documents and drawings by the Employer shall mean that the Employer is satisfied that:
- The Contractor has completed the part of the Works covered by the subject document (i.e. confirmation of progress of work).
 - The Works appear to comply with requirements of Specifications.
- 2.5.8 In no case the approval by the Employer of any document does imply compliance with neither all technical requirements nor the absence of errors in such documents. If errors are discovered any time during the validity of the contract, then the Contractor shall be responsible of their consequences.
- 2.5.9 For equipment and items in the scope of supply, the bidder has to submit
- General arrangement drawing with full dimensions.

All Designs/Drawings/Calculations/Data submitted by the contractor, from time to time shall become the property of the Employer and Employer has the right to use or replicate such designs for future contracts / works without the permission of the Contractor. The Employer has all rights to use/ offer above designs/drawings/data sheets to any other authority without prior Permission of the Contractor.

2.6.0 FINAL DRAWINGS AND DOCUMENTS

- 2.6.1 The successful Contractor shall require to provide following drawings and documents in printed form:
- All approved drawings (AS BUILD) of equipment in three (3) copies.
 - Copies of routine test reports (in triplicate) of relevant equipment.
 - Final Guaranteed and Other technical particulars of relevant equipment.
 - In addition to the above the Contractor shall provide four (4) sets of all the drawings and documents to Employer in printed form for his reference and record.

2.7.0 QUALITY ASSURANCE, INSPECTION & TESTING

- 2.7.1 To ensure that the supply and services under the scope of this Contract whether manufactured or performed within the Contractor's works or at his Sub Contractor's premises or at site or at any other place of work are in, accordance with the specifications, the Contractor shall adopt suitable quality assurance programme to control such activities at all points necessary. Such programme shall be outlined by the Contractor and shall be finally accepted by the Employer after discussions before the award of Contract.
- 2.7.2 The Quality plan shall be mutually discussed and approved by the Employer after incorporating necessary corrections by the Contractor as may be required.

2.8.0 QUALITY ASSURANCE DOCUMENTS

- 2.8.1 The Contractor shall be required to submit all the Quality Assurance Documents as stipulated in the Quality Plan at the time of Employers inspection of equipment/material.
- 2.8.2 The Employer or his duly authorized representatives reserves the right to carry out Quality Audit and quality surveillance of the systems and procedures of the Contractors/his vendors Quality Management and Control Activities.

2.9.0 EMPLOYER'S SUPERVISION

- 2.9.1 To eliminate delays and avoid disputes and litigation it is agreed between the parties to the Contract that all matters and questions shall be resolved in accordance with the provisions of this document.
- 2.9.2 The manufacturing of the product shall be carried out in accordance with the specifications. The scope of the duties of the Employer, pursuant to the contract, will include but not be limited to the following:-
- a) Interpretation of all the terms and conditions of these Documents and Specifications.
 - b) Review and interpretation of all the Contractors drawings, engineering data etc.
 - c) Witness or authorize his representative to witness tests at the manufacturer's works or at site, or at any place where work is performed under the contract.
 - d) Inspect, accept or reject any equipment, material and work under the Contract, in accordance with the Specifications.
 - e) Issue certificate of acceptance and/or progressive payment and final payment certificate.
 - f) Review and suggest modification and improvement in completion schedules from time to time, and
 - g) Supervise the Quality Assurance Programme implementation at all stages of the works.

2.10.0 INSPECTION AND INSPECTION CERTIFICATE

- 2.10.1 The Employer, his duly authorized representative and/or outside inspection agency acting on behalf of the Employer shall have, at all reasonable times, access to the premises and works of the Contractor and their sub-contractor(s)/sub-vendors and shall have the right, at the reasonable times, to inspect and examine the materials and workmanship of the product during its manufacture.
- 2.10.2 All routine and acceptance tests whether at the premises or works of, the Contractor or of any Sub-Contractor, the Contractor except where otherwise specified shall carry out such tests free of charge. Items such as labour, materials, electricity, fuel, water, stores apparatus and instruments as may be reasonably demanded by the Employer/inspector or his authorized representative to carry out effectively such tests in accordance with the Contract shall be provided by the Contractor free of charge.
- 2.10.3 If desired by the Employer, the Contractor shall also carry out type tests as per applicable Standards for which Employer shall bear the expenses except in cases where such tests have to be carried out in pursuance to **Clause 3.13.3**. The Contractor is required to quote unit rates of type test charges in a separate Schedule (if such schedule is provided in the Bidding Document) in pursuance to this Clause. However, these type test charges shall not be taken into account in comparing Price Bid.
- 2.10.4 The inspection by Employer and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the Contractor in respect of the agreed Quality Assurance Programme forming a part of the Contract.

2.11.0 TESTS

- 2.11.1 The type, acceptance and routine tests and tests during manufacture to be carried-out on the material and equipment shall mean as follows:
- a) Type Tests shall mean those tests, which are to be carried out to prove the process of manufacture and general conformity of the material to this Specification. These tests shall be carried out on samples prior to commencement of commercial production against the order. The Bidder shall indicate his schedule for carrying out these tests.
 - b) Acceptance Tests shall mean those tests, which are to be carried out on samples taken from each lot offered for pre-dispatch inspection, for the purposes of acceptance of that lot.
 - c) Routine Tests shall mean those tests, which are to be carried out on the material to check requirements, which are likely to vary during production.

d) Tests during Manufacture shall mean those tests, which are to be carried out during the process of manufacture and end inspection by the Contractor to ensure the desired quality of the end product to be supplied by him.

e) The norms and procedure of sampling for these tests will be as per the Quality Assurance Programme to be mutually agreed to by the Contractor and the Employer.

2.11.1 The standards and norms to which these tests will be carried out are specified in subsequent Sections of this Specification. Where a particular test is a specific requirement of this Specification, the norms and procedure of the test shall be as specified or as mutually agreed to between the Contractor and the Employer in the Quality Assurance Programme.

2.11.2 For all type and acceptance tests, the acceptance values shall be the values specified in this Specification or guaranteed by the Bidder or applicable Standards, as applicable.

All routine and acceptance tests shall be conducted as per IEC60840/IEC62067. All type tests conducted during last five years from the date of NIT as per IEC 60840/ IEC 62067 including its amendments on the XLPE insulated HT cable should be submitted. The diameter of test cylinder during bending test shall be as per IS:7098 (Part3) or the diameter of drum barrel to be used for dispatch of cables whichever is lower. For accessories type test reports should be submitted as per IEC 60840/ IEC 62067 & including amendments.

Following additional type tests shall be carried out on outer sheath of XLPE insulated HT cable.

a. Oxygen index and temperature index test as per ASTM D-2863.

All tests as prescribed in IEC-60840 shall be performed after installation of cable.

2.12.0 TYPE TEST REPORTS

2.13.1 Materials, which have never been tested for critical performance, shall not be accepted. In such cases, a promise or agreement by a bidder to have the equipment tested after award of a contract is not acceptable.

2.13.2 All Bids must be accompanied by the Type Test Certificates of materials offered (refer Clause 3.13.5 below). Such type test certificates shall be acceptable only if:-

a) Tests are conducted in an independent testing laboratory with NABL accreditation, or

b) Tests are conducted in manufacturer's own laboratory.

In case of (a) the laboratory must have NABL accreditation; and

In case of (b) tests have been witnessed by technically qualified representatives of earlier clients or purchaser.

2.13.3 Test reports to be acceptable must be related directly to the equipment offered i.e. it is fully identical in design, rating and construction with the equipment for which the type test certificates have been submitted. Test reports for higher class (by capacity/voltage etc.) of equipment are acceptable with commitment to perform the type tests free of any charge on the particular equipment after the award of contract.

2.14.0 GUARANTEED TECHNICAL PARTICULARS

2.14.1 The Guaranteed Technical Particulars of the various items shall be furnished by the Bidders with the Technical Bid in the prescribed Schedules of the bidding document. The Bidder shall also furnish any other information's as in their opinion is needed to give full description and details to judge the item(s) offered by them.

3.14.2 The data furnished in Guaranteed Technical Particulars should be the minimum or maximum value (as per the requirement of the specification) required. A Bidder may guarantee a value more stringent than the specification requirement. However, for testing purpose or from performance point of view, the material shall be considered performed successfully if it achieves the minimum/maximum value required as per the technical specification. No preference whatsoever shall be given to the bidder offering better/more stringent values than those required as per specification except where stated otherwise.

2.15.0 MATERIALS HANDLING AND STORAGE

2.15.1 All the supplies under the Contract as well as Employer supplied items (if any) arriving at site shall be promptly received, unloaded and transported and stored in the stores by the Contractor.

2.15.2 Contractor shall be responsible for examining all the shipment and notify the Employer immediately of any damage, shortage, discrepancy etc. for the purpose of Employer's information only. The Contractor shall submit to the Employer every week a report detailing all the receipts during the week. However, the Contractor shall be solely

responsible for any shortages or damages in transit, handling and/or in storage and erection at site. Any demurrage, and other such charges claimed by the transporters, railways etc., shall be to the account of the Contractor.

- 2.15.3 The Contractor shall maintain an accurate and exhaustive record-detailing out the list of all items received by him for the purpose of erection and keep such record open for the inspection of the Employer.
- 2.15.4 All items shall be handled very carefully to prevent any damage or loss. The materials stored shall be properly protected to prevent damage. The materials from the store shall be moved to the actual location at the appropriate time so as to avoid damage of such materials at Site.
- 2.15.5 All the materials stored in the open or dusty location must be covered with suitable weather-proof and flameproof covering material wherever applicable.
- 2.15.6 The Contractor shall be responsible for making suitable indoor storage facilities, to store all items/materials, which require indoor storage.
- 2.15.7 The Contractor shall have total responsibility for all equipment and materials in his custody, stored, loose, semi-assembled and/or erected by him at site. The contractor shall make suitable security arrangements including employment of security personnel to ensure the protection of all materials, equipment and works from theft, fire, pilferage and any other damages and loss.

2.16.0 **STANDARD & CODES**

- 2.16.1 The works covered by the specification shall be designed, engineered, manufactured, tested and commissioned in accordance with the Standards as specified in the table below.
- 2.16.2 Other internationally accepted standards which ensure equivalent or better performance than that specified in the standards referred shall also be accepted. Copies of such standards shall be submitted by the bidder along with the bid.

IS 7098 : Part 2	Cross-linked polyethylene insulated thermoplastic sheathed cables: For working voltage 33KV
IS 8130 : 1984	Conductors for insulated electric cables and flexible cords
IS 5831 : 1984	PVC insulation and sheath of electric cables.
IS 1255 : 1983	Code of practice for installation and maintenance of power cables upto and including 22KV rating.
IS 3975 : 1999	Mild steel wires, formed wires and tapes for armouring of cables.
IS 5831 : 1984	PVC insulation and sheath of electric cables.
IS 6380 : 1984	Elastomeric insulation and sheath of electric cables.
IS 8130 : 1984	Conductors for insulated electric cables and flexible cords.
IS10418 : 1982	Drums for electric cables
IS 5 : 1994	Colours for ready mixed paints and enamels.
IS 617 : 1994	Aluminium and aluminium alloy ingots and castings for general engineering purposes (Superseded IS 20: 1977)
IS 3043 : 1987	Code of practice for earthing.
IS 5578 : 1984	Guide for marking of insulated conductors.
IS 11353 : 1985	Guide for Uniform System of Marking and Identification of
IS 5216 : Part I : 1982	Recommendations on Safety Procedures and Practices in Electrical Work.
IS 2071 : 1993	High voltage test techniques.
IEC-60540	Power cables with extruded insulation and their accessories and cords
EC 60060 : 1989	High Voltage Test Techniques
IEC-60502	Extruded solid dielectric insulated power cables for rated voltages from 1KV up to 20KV
IEC-60754 : 1991	Tests on gases evolved during combustion of electric cables

IEC-60183 : 1990	Guide to the Selection of High Voltage Cables.
IEC-60230 : 1996	Impulse tests on cables and their accessories.
IEC-60840 / IEC- 62067	Testing
IEC-60287 : 1995	Calculation of the continuous current rating of cables (100%load factor).
IEC-60304 : 1982	Standard colours for insulation for low-frequency cable and wires
IEC-60331 : 1970	Fire resisting characteristics of Electric cables.
IEC-60332 : 1992	Tests on electric cables under fire conditions.
BS-5468	Cross-linked polyethylene insulation of electric cables
IEC-60228 : 1978	Conductors of insulated cables
IEC-60332 : 1993	Test on electric cables under fire conditions
IEC-60066	Environmental Test
IEC-60117	Graphical Symbols
IEC-60270 : 2000	Partial Discharge Measurements
CSA-Z299.1-1978h	Quality Assurance Program Requirements
CSA-Z299.2-1979h	Quality Control Program Requirements
CSA-Z299.3-1979h	Quality Verification Program Requirements
CSA-Z299.4-1979h	Inspection Program Requirements
ASTMD-2863	Measuring the minimum oxygen concentration to support candle like combustion of plastics (oxygen index)

2.17.0 COMPLIANCE WITH SPECIFICATION & DEVIATION:

2.17.1 Normally the offer should be as per Technical Specification without any deviation. But any deviation felt necessary to improve performance, efficiency and utility of equipment must be mentioned with reasons duly supported by documentary evidence. Such deviations suggested may or may not be accepted by the purchaser. As a mark of technical conformance, all sheets of the specification shall be furnished by each bidder with the signature and company seal affixed thereon.

2.18.0 CONSTRUCTION OF 33KV XLPE CABLE :

2.18.1 Untinned annealed copper conductor of class 2 as per IS 8130/1984 and any latest amendments to it. The shape of conductor shall be compacted, stranded, and circular/ sector shaped, shielded with conductor screen of black extruded semi-conducting compound, XLPE insulation, shielded with insulation screen of black extruded semi-conducting compound, black semi-conducting tape and metallic screen of copper tape, Inner sheath extruded PVC type ST2, single layer of strip/ round steel, round hard drawn aluminium wire armoured and black extruded FR-PVC (Type ST-2) overall sheathed, conforming generally to IS:7098 (Part II). **Cables used earlier or repaired after damaged shall not be accepted.**

2.18.2 The construction of cable shall generally conform to the description mentioned above. Bidder may offer necessary layers such as separation tape, binder tapes etc additionally as per their manufacturing practices for meeting required performance of the offered cable. The bidder shall enclose with the bid, drawing showing cross section of the cable

2.18.3 The cable outer sheath is to be protected against rodent and termite attack.

2.18.4 The cables shall be designed to withstand all mechanical, electrical and thermal stresses under steady state and transient operating conditions.

2.18.5 Progressive sequential marking of the length of cable in meters at every one meter shall be provided on the outer sheath of the cable.

2.18.6 The cables shall have outer sheath of a material with an Oxygen Index of not less than 29 and a Temperature index

of not less than 250°C.

2.18.7 Allowable tolerance on the overall diameter of the cables shall be as per relevant IS/ IEC.

2.19.0 COMPOSITIONS OF CABLES

2.19.1 CONDUCTOR

The conductor shall consist of annealed copper stranded wires. The compacted circular conductor shall consist of segments wound up and then compacted. For the cable sizes having cross section over 400 sq.mm, the segmental compacted circular conductor having minimum four (4) segments should be constructed for the supply under the scope of bid. When the conductor's cross-section is less than 400 sq.mm, the compacted circular is applied generally.

2.19.2 CONDUCTOR SCREEN

The conductor screen shall consist of extruded semi-conducting material.

2.19.3 INSULATION

The insulation material shall be extruded cross-linked polyethylene for 33kV. In order to ensure that the screen and insulation are intimately bonded together and free from all possibilities of voids between layers, the conductor screen, the insulation and the insulation screen should be extruded simultaneously in one process in single cross-head. The extrusion process should be carried out under strictly controlled atmospheric conditions. The thickness of the insulation layer shall be uniform. The cross-linking process by N₂ gas should be preferred instead of the conventional cross-linking process by saturated steam.

2.19.4 INSULATION SCREEN

The insulation screen shall consist of extruded semi-conducting compound. Suitable bedding tapes shall be applied over the extruded semi-conducting screen.

2.19.5 MOISTURE BARRIER

The longitudinal water barrier shall be applied over insulation screen by a layer of non-woven synthetic tape with suitable water swellable absorbent.

2.19.6 METALLIC SCREEN:

The metallic screen shall be of copper wire or corrugated aluminium as per IS. The metallic screen shall be designed to meet the requirement of the system short circuit rating of 31.5KA for 3 sec (for 33KV).

2.19.7 ARMOURING

- a. The armouring shall be of non-magnetic material.
- b. The armour wires shall be applied as closely as practicable the direction of lay of the armour shall be left hand. For double wires armoured cables, this requirement shall apply to the inner layer of wires.
- c. A binder tape may be applied on the armour.
- d. The joints in armour wires of strips shall be made by brazing and the surface irregularities shall be removed. A joint in any wire shall be at least 300 mm from the nearest joint in any other armour wire in the completed cable, Number of joint in a single wire to be limited.

2.19.8 OUTER SHEATH

The outer sheath shall consist of Extruded black HDPE (TypeST7) grade. The outer sheath shall be designed for protection against termite and rodent attack and shall be coated with graphite.

2.19.9 RATING

The bidder shall declare current rating of cable for maximum conductor temperature of 90 degree C under continuous operation. A complete set of calculation made in arriving at the current rating shall be furnished for laying condition and cable sheath bonding system adopted. Short circuit temperature shall be limited to 250 degree C.

2.20.0 CABLE DRUMS

2.20.1 Cables shall be supplied in steel drums of heavy construction of suitable size and packed conforming to IS 10418 or applicable internationally accepted standards.

2.20.2 Each drum shall carry the manufacturer's name, the purchaser's name, address and contract number and type, size and length of the cable, net and gross weight stenciled on both sides of drum. A tag containing the same

information shall be attached to the leading end of the cable. A narrow and suitable accompanying wording shall be marked on one end of the reel indicating the direction in which it should be rolled.

2.20.3 Packing shall be sturdy and adequate to protect the cables, from any injury due to mishandling or other conditions encountered during transportation, handling and storage. Both cable ends shall be sealed with hermetically sealed by means of water blocking compound followed by heat shrinkable caps totally coated inside with mastic so as to prevent to cable for moisture penetration during transit, storage and laying. Direction of rolling shall be marked on the drum.

2.20.4 The bidder shall consider supply of cable on returnable drums basis. Contractor shall take back all the cable drums from site after successful laying, testing and commissioning of cables. If any length of cable remains unused, the same shall be adjusted by AEGCL.

2.21.0 TECHNICAL PARTICULARS FOR 33 KV SINGLE CORE XLPE CABLE

Sl.No.	Particulars	Details
1	Description of Cable	ARMOURING: ARMOURED CORE MATERIAL: COPPER INSULATION: XLPE NOMINAL AREA: 300 SQ.MM. NO.OF CORE: Single Core SHEATHING MATERIAL: EXTRUDED PVC, INNER & OUTER VOLTAGE GRADE: 33KV
2	Highest system voltage	36 KV
3	Voltage Grade	19/ 33KV
4	Earthing System	Effectively earthed
5	Frequency	50 Hz
6	Size of Cable	300 sqmm
	No. of Core	1C
7	Rated Power Frequency Withstand Voltage (1 min)	70 KV (rms)
8	Impulse withstand BIL (1.2/ 50/ micro Sec) Line to earth	±170 kVp
9	Rated short time withstand current	31.5 KA (rms) for 3 sec
10	Rated peak withstand current (1 sec)	78.75 kVp
11	No of phase per Ckt	3
12	Maxm.Conductor temp	90 degree C at maxm. continuous current
13	Maxm. Permissible short circuit Temperature	250 degree C for one second
14	End Sealing	H.S. Caps
15	CABLE DETAILS : CONDUCTORS	
i	Conductor material	Plain un-tinned annealed copper
ii	Conductor Shape	Compacted circular.
iii	Conductor Screen	Extruded, Cross-linked, semi conducting compound of suitable thickness. Semi conducting separator tapes with 50% overlap to be applied between conductor and conductor screen.
iv	Resistivity of the semiconducting screen	Maximum 1000 ohm-meter
16	INSULATION	
i	Insulation material	XLPE
ii	Insulation thickness	8.8 mm (Nominal thickness)
iii	specified insulation resistance at 90°C	1x10 ¹² ohm cm
iv	Insulation Screen: Type & Material	Freely strippable (with heat) type extruded non-metallic semi conducting compound followed by copper metallic tape with minimum 25 % overlapping.
16	Resistivity of the semiconducting compound	Max 500 Ohm-meter
17	Longitudinal water barrier Material	Layer of semiconducting tape with suitable water swellable absorbent with 50% overlap.
18	Overall sheath	Extruded black HDPE (TypeST7) with anti termite and anti rodent treatment.
19	Coating of outer sheath	A hard baked layer of graphite or semi conducting layer shall be applied over the outer sheath as outer electrode for testing the sheath.
	Armouring	Armoured
20	TESTS	
i	Type Test	All tests as per specifications IEC Standards.
ii	Routine Test	All tests as per specifications IEC Standards.
iii	Acceptance Test	All tests as per specifications IEC Standards.
iv	Whether test will be witnessed by purchaser or his representative	Yes. Acceptance test will be witnessed.
21	Bending Radius	The minimum bending radius of XLPE insulated cables as follows: Cable: Bending radius Single Core: 25xD (D – diameter of overall conductor)

SECTION – 3

BID SUBMISSION SHEET, BID FORMS AND SCHEDULES

1. Bid Submission Sheet

(To be submitted in Bidder's Letterhead)

Name of contract:

To,

The Deputy General Manager,
Lower Assam, T&T Circle, AEGCL,
Narengi.Guwahati-26

Sir:

We have examined the General Conditions of Contract, Technical Specification, Schedules, and Addenda Nos _____(if any). We have understood and checked these documents and have not found any errors in them. We accordingly offer to execute and complete the said Works and remedy any defects fit for purpose in conformity with these documents and the enclosed Proposal (Price Offer)

We accept your suggestions for the appointment of the Dispute Adjudication Board, as set out in the Bidding Document.

We agree to abide by this Bid until _____ and it shall remain binding upon us and may be accepted at any time before that date.

If our bid is accepted, we will provide the specified performance security, commence the Works as soon as reasonably possible after receiving the notice to commence, and complete the Works in accordance with the above-named documents within the time stated in the Bidding Document.

Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Yours faithfully

Signature _____ in the capacity of _____ duly authorized to sign bids for and on behalf of

Address

2. Form-BG

Form of Bid Security (Bank Guarantee)

WHEREAS, _____ [Name of Bidder] (hereinafter called "the Bidder") has submitted his bid dated _____ [Date] for the construction of _____ [Name of Contract] (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We _____ [Name of Bank] of _____ [Name of Country] having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ [Name of Employer] (hereinafter called "the Employer") in the sum of _____ for which payment will and truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents. SEALED with the Common Seal of the said Bank this ___ day of _____ 20__.

THE CONDITIONS of this obligation are:

- (1) If the bidder withdraws his Bid during the period of bid validity specified in the Form of Bid; Or
(2) If the Bidder refuses to accept the correction of errors in his Bid; Or
(3) if the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity;
(a) fails or refuses to execute the Form of Contract Agreement in accordance with the Instructions to Bidders, if required; or
(b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;

we undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it owing to the occurrence of one or all of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 180 days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

(Signature, Name, and Address)

3. Form-MA
Form of Manufacturer's Authorization
(To be submitted in Manufacturer's Letterhead)

Bid No.:

To,

The Deputy General Manager,
Lower Assam, T&T Circle, AEGCL,
Narengi.Guwahati-26

WE [*insert: name of Manufacturer*] who are established and reputable manufacturers of [*insert: name and/or description of the Goods*] having production facilities at [*insert: address of factory*] do hereby authorize [*insert: name & address of Bidder*] (hereinafter, the "Bidder") to submit a bid the purpose of which is to provide the following goods, manufactured by us, and to subsequently negotiate and sign the Contract:

1. -----

2. -----

We hereby extend our full guarantee and warranty in accordance with **Clause 2.9.0** of the Special Conditions of Contract, for the above specified Goods supporting the Supply of specified Goods and fulfilling the Related Services by the Bidder against this Bidding Documents, and duly authorize said Bidder to act on our behalf in fulfilling these guarantee and warranty obligations. We also hereby declare that, we will furnish the Performance Guarantee in accordance with **SCC Clause 2.6.0**.

Further, we also hereby declare that we and, [*insert: name of the Bidder*] have entered into a formal relationship in which, during the duration of the Contract (**including related services and warranty / defects liability**) we, the Manufacturer or Producer, will make our technical and engineering staff fully available to the technical and engineering staff of the successful Bidder to assist that Bidder, on a reasonable and best effort basis, in the performance of all its obligations to the Purchaser under the Contract.

For and on behalf of the Manufacturer

Common Seal and Signature of the
authorised person: Name:

Designation:

NOTE:

This MA should be signed by a person having either of the following-

- 1) Valid Power of attorney
- 2) Authorised by Managing Director
- 3) Member of Board of Directors

4. Guarantee Declaration

We declare that the ratings, specifications and performance figures of the various plants and equipments /material furnished by us in the Bid are guaranteed. We further declare that in the event of any deficiencies in meeting the guarantees in respect of the characteristics mentioned in Guaranteed Technical Particulars, of Technical Bid as established after conducting the factory test, you may at your discretion, reject or accept the equipment/material after assessing the liquidated damages as specified in relevant clause of Bid Document.

Date:

(Signature).....

Place:

(Printed Name).....

(Designation).....

(Common Seal).....