

ASSAM ELECTRICITY GRID CORPORATION LIMITED
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**TERMS, CONDITIONS AND TECHNICAL SPECIFICATIONS OF CONTRACT
WITH ITEM RATE SCHEDULE**

NIT No: AEGCL/DGM/LAC/TT/TLS-69/2018-19/327 Dated :19/12/2018

Bidding Document

for

**Construction of Hume Pipe Foundation along with Erection of Tower for
raising of height of 220kV D/C Sarusajai-Mirza TL under Deposit Scheme**

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

Cost for Participation = ₹ 1000.00

SECTION – 1

INSTRUCTION TO BIDDER**1.1.0 Scope of Bid**

1.1.1. The ASSAM ELECTRICITY GRID CORPORATION LIMITED, herein after referred to as AEGCL or Employer will receive bids for the following work under the deposit scheme.

1.1.2.

Package	Description	Bid Reference No.	EMD in Rs
A	Construction of "A+0" Mtr tower in between Loc.No-372(A+0) and 373(B+0) of 220 KV D/C Mirza-Sarusajai Transmission Line for raising the height to keep the adequate ground clearance at Pamohi under deposit work scheme	NIQ No- AEGCL/DGM/LAC/TT/TLS- 69/2018/328 : Dtd: 19/12/2018	Rs 30,000.00

b) **Scope of Works:** - The scope of works briefly covers the following:

- Construction of Hume Pipe foundations for 220 KV D/C towers including setting of stubs. Erection of towers on the foundations.
- Stringing of conductor and ground wire complete and commissioning.
- Dismantling of the existing portion.

1.1.3 **Bidders should bid offline for supply, erection and dismantle to complete the work.**

1.1.4 The successful bidder will be expected to complete the Works within **4 months** from the date of issue of work order.

1.2.0 Qualification of the Bidder

1.2.1. To be qualified for award of Contract, bidders:

(A) shall submit a written **notorised power of attorney** authorizing the signatory of the bidder to commit the bid, prior to one hour of the opening of technical bid.

(B) The bidder must possess electrical contractor license from the concerned Govt. authority. A copy of the license should be submitted with the offer, and

(C) must compulsorily meet each of the following minimum criteria

(i) **EXPERIENCE**

The bidder should have experience in similar nature of 66 KV /132 KV & above transmission line work to qualify for the bid.

(ii) **PERSONNEL CAPABILITY**

The Bidder must be suitably qualified personnel to fill positions required for contract implementations. The Bidder will supply information of the key personnel, design & engineering staff, support staff, field staff giving details of experience in supply and erection of transmission line

(iii) **FINANCIAL CAPABILITY**

The Bidder should furnish necessary documents to show that he has access to, or has available, liquid assets, unencumbered real assets, line of credit and other financial means (inter alia including a Guarantee or an undertaking from a Bank or financier).

The average annual turnover of the bidder for the three best financial years out of the last five financial years at minimum should be as follows:

SI No	Package	Turnover in Rs
1	A	Rs 30,00,000.00

Bidder must submit annual turnover report in a separate sheet with the certification from approved Charter Accountant / firm.

Bidder shall submit sealed envelope in offline mode the scanned copy of complete annual reports together with Audited statement of accounts of the company for last five years.

The Bidder shall submit sealed envelope in offline mode the scanned copy of audited balance sheet and income statement of its own (separate) for the last five years and must demonstrate the soundness of their financial position showing long term profitability. Wherever necessary the Employer may make enquiries with Bidder's bankers

The Bidder must meet the following minimum cash flow requirement of 15Lakhs

(iv) **EQUIPMENT CAPABILITIES**

The bidder should assure access to supply of fabricated steel structures and shall furnish necessary proof that he or his supplier has capable of, manufacture & supply of such material. Bidders are further to assume that based on the known commitments the materials will be available for use in the proposed contract.

(iv) **LITIGATION HISTORY**

Bidders shall submit details of all litigation, arbitration or other claims, whether pending, threatened or resolved in the last five years.

The Bidder's offer shall include and substantiate data on qualifying requirements such as in addition to given as above:

- 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 Electrical Contractor License issued by competent authority in the State of Assam or in the State where the bidder's business is registered.***
- c) ***Total monetary value of similar work performed by the bidder in each of the last five years.***
- d) ***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; and clients who may be contacted for further information on those contracts.***
- e) ***Qualifications and experience of key site management and technical personnel proposed for the Contract.***
- f) ***Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years.***
- g) ***Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources).***
- h) ***Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount.***
- i) ***The Bidder should also substantiate availability (either owned or leased) of the tools, tackles, spare parts etc. for carrying out the works.***
- j) ***Bidder must submit the completion schedule and Declaration of current engagement as per schedule provided along the bid***

1.2.2. Even if 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.

1.2.3. 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

1.3.0 Joint Venture

1.3.1 Bids submitted by a joint venture of two or more firms as partners shall comply with the following requirements:

- (a) The Bid, and, in case of successful Bid, the Form of Agreement shall be signed by all the Partners so as to be legally binding on all partners.
- (b) One of the partners shall be authorized to be as the Lead Partner and submitting a Power of Attorney signed by legally authorized signatories of all the partners shall evidence this authorization.
- (c) The Lead partner shall be authorized to incur liabilities, receive payments and receive instructions for and on behalf of any or all partners of the joint venture and the entire execution of the Contract;
- (d) All the partners of the Joint Venture shall be jointly and severally liable for the execution of the contract in accordance with the contract terms and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Bid Form and the Form of Agreement (in case successful bidder).
- (e) A copy of the agreement entered into by the Joint Venture partners shall be submitted with the Bid.
- (f) **Joint Venture Agreement must be registered in the Court of Law. Notarized Joint venture agreement shall not be acceptable. Original copy of registered Joint Venture Agreement & Notorised Power of Attorney (if any) shall be submitted prior to one hour of the opening of technical bid.**

The figures of average annual turnovers and cash flows for each Joint Venture partners shall be added together to determine the bidder's compliance with the minimum financial capability requirements for the package. However, the lead partner must meet at least 40% and each of the other partners must meet at least 20% of the minimum average annual turnover criteria given above

1.4.0 Cost for Bidding

1.4.1. 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.

1.5.0 Right of Way

1.5.1. Right of way along the surveyed route for diversion shall be arranged by the contractor coordinated by AEGCL and any type of **compensation that may be necessary shall be paid by the contractor**. The bidder on its own responsibility may visit and examine the Site of Works and its surroundings and obtain information that may be necessary for preparing the bid.

1.5.2. Clarification on Bidding Documents

1.5.3. A prospective bidder may ask AEGCL in writing for any clarification on the bidding documents at the following address

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

1.6.0 Amendment of Bidding Documents

1.6.1. At any time prior to the deadline for submission of bids, the Employer may for any reason modify the bidding documents by issuing addenda which shall be communicated in writing to all purchasers of the bidding documents.

1.6.2. Any addendum thus issued shall be part of the bidding documents.

1.7.0 Language of Bid

1.7.1. The bid, and all correspondence and documents related to the bid, exchanged between the bidder and the Employer shall be in the English language.

1.8.0 Documents Comprising the Bid

1.8.1. The bid submitted **sealed envelope in offline mode** by the bidder shall comprise **technical proposal** and the **price proposal separately**.

1.8.2. The Bid submitted sealed envelope in offline mode by bidders shall contain the following:

- a Bid Submission Sheet (Refer Section 4).
- b Documentary evidence to establish that the Bidder meet the qualifying requirements in accordance with Clause 1.2.0.
- c Documents to be furnished as per Clause 1.2.1.
- d The Bid Guarantee (Bid Security) in accordance with Clause 1.11.0 & its sub clauses of this Section.
- e All Bidding Schedules (**Section-4**) properly filled up including Price Bid Schedules.

1.9.0 Bid Form and Price Schedules

1.9.1. The Bidder shall complete the Bid Form and the appropriate Price Schedules furnished in the bidding documents in the manner and detail indicated therein, following the requirements of Clauses 1.9.01.9.1.

1.9.2. Bid Prices

1.9.3. Bidders shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding documents in respect of procurement and subcontracting (if any), delivery, construction, installation and completion of the facilities. This includes all requirements under the Contractor's responsibilities for testing and commissioning of the facilities and, where so required by the bidding documents and in accordance with the requirements of the General Conditions of Contract.

1.9.4. Bidders shall use only the items mentioned in the (Price Schedules) while filling up the Price Bidding Schedules. Any other items which are reasonably inferred or necessary for satisfactory completion of the works covered in the Bidding Document, but which are not specifically specified in the above mentioned Schedule of Items shall be deemed to be included in other items of those Schedules. No payment shall be made separately for those items.

1.9.5. Bidders shall give a breakup of the prices in the manner and detail called for in the **Schedules of Prices**

1.9.6. In the Schedules, Bidders shall give the required details and a breakup of their prices, including all taxes, duties, levies, and charges payable for both supply and erection.

1.9.7. **Price Adjustment**

Prices quoted by the Bidder shall not be subject to adjustment during performance of the contract to reflect changes in the cost of labour, fuel, material, equipment and transport components. Duties and Taxes shall not also be adjusted, except there is variation due to changes in legislation of the Country.

1.9.8. **Insurance**

The Bidder shall insure the Works in accordance with the requirements of General Conditions of Contract. The bid price shall include all costs in pursuance of fulfilling insurance liabilities under the contract.

1.10.0 Bid Validity

1.10.1. Bids shall remain valid for a period of 180 (One hundred and eighty) days after the date of opening of Bids.

1.10.2. 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 1.11.0 in all respects.

1.11.0 Bid Security (Earnest Money)

1.11.1. The Bidder shall furnish, as part of its bid Proposal, a bid security **as per bid document clause no 1.1.2**. Original copy of the bid security must be submitted along the technical bid proposal.

1.11.2. The bid security shall be in the form of an irrevocable Bank Guarantee issued by Nationalized Bank in favour of **"Managing Director, Assam Electricity Grid Corporation Limited, Guwahati"**.

The bid security shall remain valid for 30 days beyond the original validity period for the bid, and beyond any period of extension subsequently requested.

1.11.3. **Original Instrument copy of Earnest Money (BG) and Joint Venture (if any) has to be submitted at the office prior to one hour on the final time and date of the opening of Tech. Bid.**

1.11.4. Any bid not accompanied by an acceptable Bid Security shall be rejected as non-responsive.

1.11.5. The bid securities of unsuccessful bidders will be returned as promptly as possible, after the expiry of the period of bid validity.

1.11.6. The bid security may be forfeited

(a) if the bidder withdraws its bid, except as provided in Sub-Clause 1.16.1 ;

(b) if the bidder does not accept the correction of its bid price, pursuant to Sub-Clause 1.20.2; or

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

Sign the Contract Agreement,

1.11.7. No interest shall be payable by the Employer on bid guarantee.

1.12.0 Alternative Proposals by Bidders

1.12.1. Bidders shall submit sealed envelope in offline mode offers, which comply with the Bidding Documents, including the basic Employer's Requirements as indicated in the bidding documents. Alternatives will not be considered.

1.13.0 Format and Signing of Bid

1.13.1. The bidder shall submit the bid proposal **sealed envelope in offline mode**, envelope wise separately. In the event of discrepancy between the original and any copy, the original shall prevail. However, AEGCL may ask bidder to submit hard copies of GTP, Drawings, Manufacturers authorization of the major items and **any other document** if deemed necessary.

- 1.13.2. The original and scanned copies of the bid shall be signed by a person or persons duly authorized to sign on behalf of the bidder, pursuant to Sub-Clauses. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.
- 1.13.3. 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.
- 1.13.4. 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.
- 1.13.5. 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.
- 1.13.6. 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.
- 1.13.7. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the Bid.
- 1.13.8. The Bidder's name stated on the proposal shall be exact legal name of the firm
- 1.13.9. Bids not conforming to the above requirements of signing may be disqualified.

1.14.0 Sealing and Marking of Bids (In case of manual Bidding)

- 1.14.1. The bidder shall seal the original copy of the technical proposal, the original copy of the price proposal and each copy of the technical proposal and each copy of the price proposal in separate envelopes clearly marking each one as: "ORIGINAL-TECHNICAL PROPOSAL", "ORIGINAL - PRICE PROPOSAL", "COPY NO. I - TECHNICAL PROPOSAL", "COPY NO. I - PRICE PROPOSAL", etc as appropriate **Package wise separately**.
- 1.14.2. The bidder shall seal the envelopes containing the original technical and price bids and copies of the bid and then the originals and copies along with the envelope containing the Bid Security shall be put into a sealed outer envelope.
- 1.14.3. The inner and outer envelopes shall
 - (a) be addressed to the Employer at the following address:

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

1.14.4 Submission and Opening of Bids

1.14.5 Submission, Sealing and Marking of Bids

1.14.5.1 Bidders must submit their bid **sealed envelope in offline mode**. Procedures for sealed envelope in offline mode submission of bid are in accordance with **NIT as given in the portal**.

1.14.5.2 Bidders submitting bids sealed envelope in offline mode shall upload scanned copy of the original and each copy of the Bid, The rest of the procedure shall be in accordance with **NIT** .

1.14.6 Deadline for Submission of Bids

Bids must be submitted sealed envelope in offline mode on stipulated time and no bid can be accepted by the system after expiry of closing time.

1.15.0 Late Bids

1.15.1. Any bid received by AEGCL after the deadline for submission of bids prescribed in Clause will be rejected and returned unopened to the bidder.

1.16.0 Withdrawal of Bids

- 1.16.1. 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.
- 1.16.2. The bidder's withdrawal notice shall be prepared, sealed, marked and delivered in, with the envelopes additionally marked "WITHDRAWAL".
- 1.16.3. Withdrawal of a bid during the time between the deadlines for submission of bids and bid validity period specified in Sub-Clause 1.10.1 may result in the forfeiture of the bid security.

1.17.0 Opening of Bids

- 1.17.1. AEGCL will open the technical bids sealed envelope in offline mode, in the presence of bidders' representatives who choose to attend; at **14:00 hours on 03.01.2019** at the following location:

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

The bidders' representatives who are present shall sign a register as evidence of their attendance.

- 1.17.2. 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.

1.18.0 Process to Be Confidential

- 1.18.1. 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..

1.19.0 Clarification of Bid Proposals and Contacting AEGCL

- 1.19.1. 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, 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 detected by AEGCL in the evaluation of the bids.

1.20.0 Correction of Errors

- 1.20.1. 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.

- 1.20.2. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bid security may be forfeited.

1.21.0 Evaluation and Comparison of Bid Proposals

- 1.21.1. AEGCL will evaluate and compare only the bids determined to be substantially responsive.
- 1.21.2. The comparison shall be on all components and raw material incorporated including the cost of transportation, local taxes and duties, civil works, installation and other services required under the contract with due corrections as per Clause 1.20.0.

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

Time Schedule: The works including the facilities covered by this bidding are required to be completed within a period of **6 month** from the date of order.

Bidders submitting bids which deviate from the time schedule specified will be rejected.

- 1.21.3. AEGCL reserves the right to accept or reject any variation or deviation.
- 1.21.4. AEGCL will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the Lowest Evaluated Bid Price, provided that such bidder has been determined to be qualified in accordance with the provisions.

1.22.0 Employer's Right to Accept any Bid and to Reject any or all Bids

- 1.22.1. Notwithstanding Clause, 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 assigning any reason and liability to the affected bidders.

1.23.0 Notification of Award

- 1.23.1. Prior to expiry of the period of bid validity prescribed by AEGCL, AEGCL will notify the successful bidder by letter, that its bid has been accepted. This letter ("Letter of Acceptance") shall mention the amount 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 ("the Contract Price").

1.24.0 Performance Security

As a contract performance security, you are to furnish a performance security equal to 10% of the contract price in the form of Bank guarantee from a Nationalised Bank within 15 days of issue Letter of Intent (as the case may be) duly pledged in favour of Managing Director, AEGCL. Performance guarantee shall be valid upto 30 days after the end of warrantee period.

- 1.24.1. The performance guarantee shall cover additionally the following guarantees to the owner:
that the material used in the works shall be free from any defect and workmanship. All defects upon written notice from the Owner shall be rectified.
- 1.24.2. The Contract performance Guarantee will be returned to the Contractor without any interest at the end of warrantee period.

1.25.0 Retention money

In addition to above performance security deposit, 10% value of each progressive bills will be retained by the purchaser as retention money. The amount will be held by the purchaser till the work under the contract is completed and the completion certificate is issued by the consignee/supervising authority. No interest shall be payable for such deposits..

1.26.0 Warrantee: The material/equipment and services shall be guaranteed for satisfactory performance for a period of 18 months from date of supply or 12 months from the date of commissioning and taking over of the line by AEGCL as per clause.

During the period of guarantee the bidder shall rectify all defects in design, material and workmanship that may develop upon written notice from the consignee. The rectification / replacement must be carried out within a reasonable period free of cost.

1.27.0 Signing of Contract Agreement

- 1.26.1 A "Contract Agreement" shall be signed between the successful bidder and AEGCL within **15 (fifteen) days** from the date of notification of award.

1.28.0 Forfeiture of Bid Security

- 1.28.1 Failure of the successful bidder to comply with the requirements shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

SECTION-2

SPECIAL CONDITION OF CONTRACT

2.1.0 Introduction

- 2.1.1. This section "SCC" supplementary to the "General Condition of Supply & Erection of AEGCL". Whenever there is a conflict the provisions in this shall prevail over those in the "General Condition of Supply & Erection of AEGCL".
- 2.1.2. The General Condition of Supply & Erection of AEGCL is available in the official website of AEGCL. The bidder shall download the same from the AEGCL website www.aegcl.co.in.

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 Extension of Time

- 2.3.1. If the completion of the work is delayed due to reason beyond the control of the contractor, the contractor should without delay give notice to AEGCL in writing of his claim for an extension of time. The AEGCL may extend the completion date as may be reasonable but without prejudice to other terms and conditions of the contract.

2.4.0 Variations, Additions and Omissions

- 2.4.1. The contractor shall not modify any of the terms and conditions except as directed in writing by AEGCL.
- 2.4.2. The AEGCL shall have the right during the contract to amend, alter, omit or otherwise vary any of the items by notice in writings. The contractor shall carry out such variations although the said variations shall not exceed (+/-)15% of the contract price. The amount of such variations shall be determined in accordance with rates specified in the contract and where such rates are not available this will be mutually agreed between the purchaser and the contractor.

2.5.0 Taking Over

- 2.5.1. When entire scope of works is completed by the Contractor and successfully commissioned in accordance with the Contract, the same shall be taken over by AEGCL and a Taking-Over Certificate for the Works shall be issued.
- 2.5.2. The date of issue of the 'Taking Over Certificate' by AEGCL or its representative shall be the date of taking over the works.

2.6.0 Terms of Payment

2.6.1 Progressive payments for supply items:

1. Within 60 (sixty) days from the date of submission of the invoice against supply, 60% (sixty percent) payment of the total supply amount would be made along with 100% GST on receipt and acceptance of materials in full and good condition.
2. In total, 10 (ten) Nos. of progressive supply invoice would be entertained.
3. For payment of 60% (sixty percent) of total supply amount, maximum 6 (six) Nos. of progressive supply invoice would be entertained.
4. Remaining 4 (four) Nos. of supply invoice would be entertained on fulfilment of the following conditions –
 - (a) 50% of balance supply amount would be paid on completion of 50% of the total erection works or on proportionate basis, of the project.
 - (b) Remaining 50% of the supply amount would be paid on completion of 100% erection, testing and commissioning activities of the project.

2.6.2 Progressive payments for erection works :

1. Within 60 (sixty) days from the date of submission of invoice against erection, 30% (thirty percent) payment against foundation & erection of total erection. contract would be paid along with 100% GST
2. In total 8 (eight) Nos. of progressive erection invoice/ bill would be entertained.
3. The 1st progressive erection invoice/ bill would be entertained on completion of 30% of total erection cost of the project.
4. Thereafter, erection invoice/ bill can be submitted on completion of 10% of the subsequent erection work
5. 6 (six) Nos. of progressive erection invoice/ bill would be entertained in 6 (six) equal instalments @10% or proportionate progressive erection works as deemed fit by the AEGCL.
6. Remaining 10% of the erection value would be paid on completion of 100% erection, testing and commissioning activities of the project.

2.6.3 Documents to be submitted with the invoice

Payment of invoice would be entertained subject to submission of the following documents with the invoice –

- (a) Unconditional acceptance of the Letter of Award and signed Contract Agreement, by the contractor for supply.
- (b) Detailed Supply Plan approved by the AEGCL.
- (c) Documentary evidence of dispatch (R/R or receipt of L/R).
- (d) Contractor's detailed invoice & packing list identifying contents of each shipment/supply.
- (e) Copy of certificate in respect of payments of State/ Central taxes, duties, levies, etc. have been made against supply of equipment/ materials through contractors/ sub-vendors under the contract, if applicable.
- (f) Certified copy of Insurance Policy/ Insurance Certificate.
- (g) Manufacturer's/ Contractor's Guarantee Certificate of Quality.
- (h) Material Dispatch Clearance Certificate (MDCC)/ Dispatch Instructions (DI) for dispatch of materials from the manufacturer's works. MDCC/DI shall be issued by authorised Officer of the AEGCL.
- (i) Manufacturer's/ Supplier's copy of challan.
- (j) Copy of testing/ inspection of equipment/ material clearance certificate issued by AEGCL.
- (k) Copy of Goods Receipt Sheet (GRS)/ Materials Received Voucher (MRV)/ Materials Handing Over Voucher (MHOV).
- (l) Joint Measurement Certificate(For erection)
- (m) Labour Licence, Insurance, etc.-(for erection only)
- (n) Payments would be made subject to fulfilment of the following conditions - (i) Advance copy of invoices in duplicate with documents/ information as stated under clause (a) to (m) are to be furnished sufficiently in advance.
 - (ii) Any demurrage charges on account of late intimation and/or delivery of documents by the Bank is to be borne by the supplier.

- (iii) The supplier should intimate the dispatch of each and every consignment to the Purchaser and the Consignee.
- (iv) All Bank charges are to be borne by the supplier.
- (v) Payment through Bank for supply of equipment/ materials, dispatched by Rail would be allowed if required, however the equipment/ materials have to reach at destination/ project site in full and good condition and additional expenditure in any form for this is to be borne by the supplier. A prior approval from appropriate authority of the AEGCL is to be taken in this respect.
- (vi) Payment through Bank for supply of equipment/ materials, dispatched by road transport would be allowed if required, provided that, the transport agency is approved by the Banking Association and prior approval thereof is given by the AEGCL's appropriate authority.

Further, Performance Guarantee of 10% of total contract value for turnkey execution of the project in the form of Bank Guarantee (BG) from a nationalized or scheduled Bank of RBI for a period of 60 (sixty) months from the date of supply or 54 (fifty four) months from the date of commissioning of the project, whichever is later is to be submitted with acceptance of LOI and before signing of the Contract Agreement. Moreover, before one month (i.e. 30 days) of expiry of the BG, renewal is to be done by the contractor if required, otherwise revocation would be done by AEGCL within claim period. BG is to be submitted strictly as per prescribed format of the AEGCL. BG should remain valid up to 60 (sixty) days beyond warranty/ Performance Guarantee Period.

2.7.0 Liability for Accidents and Damage

- 2.7.1. The contractor shall indemnify the AEGCL against any loss , damage, and injury to any person or to any property and against any other liability or obligation and against all actions, suits, claims demands costs, charges and expenses arising in connection with such damage , injury, liability or obligation resulting from:-
 - (a). the negligence of the contractor and his workers, agents, subcontractors; and/or
 - (b). the lack of or inadequacy of safety devices on equipment supplied under this contract.

2.8.0 Use of Materials Arranged by the Board

- 2.8.1. If any materials supplied by AEGCL are found to be misused or wasted due to negligence by the contractor comes to the notice of the Corporation then the contractor shall be liable to pay compensation to the Corporation as may be decided by the Corporation.

2.9.0 Penalty for Delayed Execution

- 2.9.1. In the event of delay in completing the work extending beyond the date of completion or beyond any extension, permitted by AEGCL, 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.
- 2.9.2. AEGCL is at liberty to cancel the contract wholly or in part and to purchase materials/equipments and execute the erection work at the full risk and cost of the supplier and forfeit the security deposit.

2.10.0 Settlement of the Dispute & Arbitration

- 2.10.1. Any dispute arising out of the contract will first be discussed and settled bilaterally between the AEGCL 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 Assam Electricity Grid Corporation Limited, 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.

2.11.0 Force Majeure

- 2.11.1. Normally, force majeure shall cover only act of God, fire, war, riots and act of Government etc. Any constraints other than those specified above, will not constitute a force majeure condition. In view of other constraints

beyond the control of the contractor, primarily due to statutory compulsion, extension of time may be considered on merit of individual case. In case of a force majeure condition, the contractor shall notify the purchaser in writing of such condition within 10 days from the beginning of such delay in writing for consideration and acceptance.

2.12.0 Progress Report

2.12.1. The contractor shall submit to AEGCL monthly progress report within the first week of every month giving the status of the contract work.

2.13.0 Age Limit of Labour

2.13.1. The contractor shall not employ persons below the age of 18 years.

2.14.0 Safety & Precautions

2.14.1. The contractor shall provide adequate safety devices like head protective gears, belt etc, to his labours while executing the erection work.

2.14.2. **Any other point not specifically mentioned will be as per General conditions of supply and erection 2009 of AEGCL for the whole tender**

SECTION – 3

TECHNICAL SPECIFICATIONS

ERECTION PART :

3.8.0 General

3.8.1. The details specifications given below are intended for general description of quality, workmanship etc for the items given under clause 3.1.0 above but do not cover minutes details of the work. In the absence of relevance details in the specifications the work shall be executed according to the prevailing practices and to the discretion of the site engineer.

3.3.0 Type of Foundation:

3.3.1 Both PCC and RCC shall be involved in the proposed foundations and tenderer shall quote item wise rate for casting the foundations which will include all the related costs not specifically mentioned in the schedule of rates. The foundation drawings may be collected from the consignee of this work.

3.4.0 Tower Erection

3.4.1 The towers must be truly vertical after erection and no straining will be permitted to bring them to a vertical position. Tolerance limit for vertical shall be one in 360 of the tower height. All nuts shall be tightened properly. Before tightening it is ensured that filler washers and plates are placed in relevant gaps between members, bolts of proper size and length are inspected and one spring washer is inserted under each nut. The tightening shall be progressively carried on from the top downwards, care being taken that all bolts at every level are tightened simultaneously. The threads of bolts projecting outside nuts shall be punched at three positions on the diameter to ensure that the nuts are not loosened in course of time. If during tightening a nut is found to be slipping or running over the bolt threads, the bolt together with the nut shall be replaced.

3.4.2 The tenderer shall arrange for tack welding of all nuts and bolts up to the bottom cross arm level of the towers, if so desired by the Employer. So, the tenderer shall quote separately for such tack welding for each type of tower on per tower basis. The quoted rates for erection of towers shall, therefore, be exclusive of the cost of above tack welding.

3.5.0 Stringing of Conductor and Earth Wire

3.5.1 The stringing of the conductors and earth-wires shall be done in a most standard method used for such lines, which shall be indicated in the tender. The tenderer shall give complete details of the stringing method they propose to follow and indicate its adaptability and advantages. They shall also indicate the tools and equipment required for stringing by the method proposed by them. The contractor shall use his own stringing and erection tools and other equipment.

3.5.2 The contractor shall be entirely responsible for any damage to the towers or the conductors during stringing.

3.6.0 **Pulling Operation:**

3.6.1 The earth wire shall be strung and securely clamped to the towers before the conductors are drawn up in order of the top conductor first.

3.6.2 The pulling of the conductor into the travellers (comprising of aerial and ground rollers) shall be carried out in such a manner that the conductor is not damaged or contaminated with any foreign substance and that it may not be rubbed with rough ground surface. The traveler surface in contact with aluminium surface of conductor is not damaged. These shall be equipped with high quality ball and roller bearings for minimum friction.

3.6.3 During pulling out operation the tension in each conductor and earth wire shall not exceed the design working tension of the conductor at the actual prevailing temperature. After being pulled the conductor and the earth wire shall not be allowed to hang in the stringing blocks for more than 96 hours, before being pulled to the specified sag. It shall be ensured that the conductors and earth wire are not damaged due to wind, vibration or other cause.

3.7.0 **Sagging in Operation:**

3.7.1 The conductors shall be pulled up to desired sag and left in travellers for at least one hour after which the sag shall be rechecked and adjusted. The conductors shall be clamped within 36 hours for sagging in. The sags shall also be checked when the conductors have been drawn up and transferred to the insulator clamps.

3.7.2 At sharp vertical angles the sags and tensions shall be checked on both sides of the angle. Sagging operations shall not be carried out under wind, extremely low temperature or other adverse weather conditions, which prevent satisfactory sagging.

3.8.0 **Jointing:**

3.8.1 All the joints of the conductor or the earth wire shall be compression type in accordance with the recommendations of the manufacturers, for which the necessary tools and equipment like compressors and dies, grease guns, presses shall have to be arranged by the contractor.

All joints and splices shall be made at least 30 meters away from the structures. No joint or splices shall be made in span crossing over main roads, railways, small rivers or in tension spans. Not more than one joint shall be allowed in one span.

After pressing the joint the aluminium sleeve shall have all corners rounded, burrs and sharp edges removed and smoothened.

3.9.0 **Insulator Hoisting:**

Suspension insulator strings shall be used up to deviation of 2 degrees on all 'A' type towers in the line and strain insulators on all 'B', C and D' type towers. Except on approaching towers, all suspension strings will consist of the specified number of insulator discs per string with arching horns on line side only and tension string of specified number of insulator discs per string with arching horns on both line and tower sides.

Insulator strings shall be assembled on the ground. These shall be cleaned and examined before hoisting. Insulators with hair cracks or clips or those having glazing defects exceeding half centimeter square will not be used. No separate rates shall be quoted for insulator hoisting. The charges shall be included in the rates of string of conductors.

3.10.0 **Accessories:**

Accessories like vibration dampers; armour rods etc. for the conductor shall also be fitted on the line. Armour rods shall be provided at all suspension support of the conductors and vibration dampers shall be provided at both ends of each span at suitable distances from the supporting points for each phase conductor. All accessories shall be clean, smooth and in perfect condition before fitting.

3.11.0 Grounding

3.11.1 The Contractor shall measure the tower footing resistance (TFR) of each tower in the diverted section of the line after it has been erected and before the stringing of the earth wire during dry weather. Each tower shall be earthed and the tower footing resistance shall not exceed 10 ohms. Generally pipe type earthing shall be done in accordance with the latest additions and revisions of:

IS: 3043 : Code of practice for Earthing.

IS: 5613 : Code of practice for Design, Installation and maintenance(Part-II/Section-2) of overhead power lines.

3.11.2 The earthing will be effected by burying 3 meters long GI pipe in a 300 mm diameter and 3750 mm deep pit at a distance of not less than 3650 mm diagonally away from the stubs and filling in the pit with finely broken coke having the granule sizes not less than 25 mm and salt in such a way that a minimum cover of 125 mm thick salt mixed coke shall be maintained from the pipe on all sides and that the top edge of the pipe shall be at least 600 mm below the ground level. A 45 X 6 mm-galvanised steel flat shall be used to connect the tower with the pipe. The galvanising steel strip shall be buried not less than 600 mm deep from the ground level. The tenderer will quote the erection charges for each earthing inclusive of the cost of coke and salt, excavation and back filling etc.

3.12.0 Final Checking, Testing & Commissioning

3.12.1 After completion of the works, final checking of the line shall be done by the contractor to ensure that all the foundation work; tower erection and stringing have been done strictly according to the specifications and as approved by the Employer. All the works shall be thoroughly inspected keeping in view the following main points:

1. Sufficient back filled earth is layed over each foundation pit and it is adequately compacted.
2. All the tower members are correctly used strictly according to final approved drawings are free of any defect or damage whatsoever.
3. All the bolts are fully tightened and they are properly punched.
4. The stringing of the conductors and earth wire done to maintain proper sag.

The contractor shall submit a report to the above effect. After final checking the line shall be tested for insulation and any defect found shall be rectified by the contractor.

3.12.2 After satisfactory tests on the line and on approval by the Employer the line shall be energized at full operating voltage before handing over.

BOQ

1	Supply of RCC (NP2) Hume pipe 1200 mm dia x 2.5 meters long including transportation to the motor able road side near work site.	No	8		
	Qty:-4 Nos pit x 2 Nos each=8 Nos.				
2	1.3. Earth/Sand filling in plinth in layers not more than 150mm thick including necessary carriage, watering, ramming etc complete as directed and specified including payments of land compensation, forest royalty, sales tax and other duties and may be necessary				
	(c) With hill sand obtained by truck carriage loading and unloading to the site of work				
	12.00mtr x 10.00mtr x4.00 mtr = 480.00 CM	CM	480		
3	Sinking of Hume pipe and excavation for foundation pits including necessary dewatering manually or mechanically, shoring & shuttering, Back filling after completion of foundation works ,ramming, watering and disposal of extra earth by head loading etc. as per direction of site Engineer in submersed soil.				
	4x(3.141x0.6x0.6x4.00) = 18.09CM	CM	18.09		
4	Setting of stub (set of four) including				
	Transportation and distribution of stub and accessories from store to site exc-				
	cluding cost of excavation, concreting, and back filling.(i) Wet-"A+0"	Set	1		
5	RCC work in foundation with Tie beam & Chimney in proportion 1:2:4 with max size of aggregate 20 mm including all labour, material equipment, shuttering, head loading etc complete for handling transportation, bathing, mixing, placing, leveling, curing etc complete including cost of cement and MS rod				
	Qty:-	CM	30.31		
	Foundation:4x(0.6x0.6x3.141x5.5)=24.87CM				
	Beam:- 4x(0.4x0.4x6.5)= 4.16CM				
	Couping <u>4x0.4x0.4x 2.00= 1.28 CM</u>				
	Total 30.31CM				
6	Providing form work of ordinary timber planking, so as to give a rough finish including centering, shuttering, strutting, and propping etc for plain concrete work using 25 mm thick plank.	Sq.M	44		
	Qty:-				

	4x4x0.4x2.00 = 12.80 Sq M				
	<u>4(3x0.40x6.5)= 31.20 Sq M</u>				
	Total- 44.00Sq.M				
7	Opening and of Ground wire (OPGW)	Job	1		
	and re-fitting including supply of OPG suspension fittings as directed.				
8	Opening and lowering of 6 nos AAA Zebra conductor between Loc 372 –loc-371 (Both Ckt) and re-stringing at ERS towers as directed.	No	120		
	Requirement of skilled labour:-				
	6 days x20 nos. =120 Nos				
9	Erection of Superstructure erection including Transportation of structure by any means and distribution of structure	MT	3.659		
	and accessories to site including supply and fixing of Danger plate, Number plate and phase plate as directed.				
10	Opening and lowering of 6 nos AAA Zebra conductor from ERS and fitting at new tower as directed 6 days x20 nos. =120 Nos	No	120		
11	Welding of nuts and bolts of newly erected tower up to bottom cross arm level including all materials and labours.	No	1		
12	Painting of tower with bituminous paint of approved quality up to 3.00 Mtrs from GL including the cost of paints.	No	1		
13	Grounding of tower including cost of grounding material like 3.00 Mtrs long 25mm dia GI pipe , 45x6mm GI flate with GI bolt, nuts ,washers, salt, coke etc. complete with transportation of materials.	No	1		