ASSAM ELECTRICITY GRID CORPORATION LIMITED

Regd. Office:1st floor, Bijulee Bhawan,Paltanbazar,Guwahati-781001

CIN:U40101 AS2003SGC007238

web:www.aegcl.co.in

Bidding Document

For

REPAIRING /REPLACEMENT OF DAMAGED TOWER LEGS INCLUDING ALL NECESSARY CIVIL WORKS AT LOC NO. 121(TENSION) OF 132KV ROWTA-RANGIA TL

DEPUTY GENERAL MANAGER

TEZPUR T&T CIRCLE

AEGCL, TEZPUR-784154

Tender Cost: ₹1000.00

EMD: ₹11000.00

For & on behalf of the **Managing Director, AEGCL, the Deputy General Manager, Tezpur T&T Circle, AEGCL, Kunderbari, Depota, Tezpur,** invites 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.

Sl. No.	Name of work	Time of completion In Days	Name and address of Consignee
1	**REPAIRING /REPLACEMENT OF DAMAGED TOWER LEGS INCLUDING ALL NECESSARY CIVIL WORKS AT LOC NO. . 121(TENSION) OF 132KV ROWTA-RANGIA TL**	**90 days from the date of site handover**	**132/33kV Depota GSS**

1.0	**Cost of Bidding Document:**	
	Bidder has to pay Non-Refundable tender document cost of **Rs.1000.00 (Rupees One Thousand) only in the form of A/C payee Demand draft (Non-refundable) pledged in favour of AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-1, payable at Guwahati**.	
2.0	**Bidding Address:**	
2.1	Tender papers can be purchased on application in plain paper from the **Deputy General Manager, Tezpur T&T Circle, AEGCL, Tezpur.** **Key Dates:-** a) Bid Document available date: 10:00hrs of 29-11-2024 b) Bid Submission Start Time & date: 11:00hrs of 29-11-2024 c) Bid Submission end time & date: 11:00hrs of 24-12-2024 d) Techno-Commercial Bid Opening time: 12:00hrs of 24-12-2024	
3.0	**Validity of Bids and Bids Prices:**	

3.1	Bids shall remain valid for a period of 180 days after the bid submission deadline date prescribed by AEGCL. In exceptional circumstances, prior to the expiration of the bid validity period, AEGCL may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a bid security shall also be extended for a corresponding period.
3.2	Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its bid.
3.3	Bidders shall quote for the entire scope of supply and services on a "single responsibility" basis such that the total bid price covers all the Supplier's obligations mentioned in or to be reasonably inferred from the bidding document in respect of the design, manufacture, including procurement, delivery, and completion of the entire scope.
3.4	Bidders shall give a breakdown of the prices in the manner and detail called for in the Price Schedules.
4.0	**Bid Security:**
4.1	All bids must be accompanied by a bid security amounting to **Rs. ₹11000.00** only in the form of Bank Guarantee/Demand Draft from any Nationalised Bank payable at Guwahati in favour of **AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-01.**
4.2	If a bid security is specified, any bid not complying then his bid shall be rejected by the Employer as non-responsive.
4.3	The bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
4.4	The bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security.
4.5	The bid security may be forfeited: a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder. b) if the successful Bidder fails to: (i) sign the Contract with in the specified period. (ii) furnish a performance security within 15 (fifteen) days' time.
4.6	The Bid Security of a JV shall be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent.
4.7	If a bid securing declaration is not executed in accordance with the above, AEGCL will declare the Bidder ineligible to be awarded a contract by the AEGCL for the period of time stated in the Form of Bid Securing Declaration.
5.0	**Format and Signing of Bid:**

5.1	The Bidder shall prepare one original of the Technical Bid and one original of the Price Bid comprising the Bid and clearly mark it —ORIGINAL - TECHNICAL BID and —ORIGINAL - PRICE BID. In addition, the Bidder shall submit three copies of the bid, in the number specified and clearly mark each of them —COPY. In the event of any discrepancy between the original and the copies, the original shall prevail.
5.2	The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bid Document and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialled by the person signing the bid.
5.3	A bid submitted by a JV shall be signed so as to be legally binding on all partners.
5.4	Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the bid.
6.0	**Submission and Opening of Bids:**
6.1	**Submission, Sealing and Marking of Bids:**
6.1.1	Bidders may submit their bids by mail or by hand. When so specified in the Bid Document, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows: Bidders submitting bids by mail or by hand shall enclose the original and each copy of the Bid, including alternative bids, if permitted in accordance with above, in separate sealed envelopes, duly marking the envelopes as —ORIGINAL and —COPY. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
6.1.2	The inner and outer envelopes shall: (a) bear the name and address of the Bidder; (b) be addressed to the Bidding Authority. (c) bear the specific identification of this bidding process indicated in the Bid Document
6.1.3	The outer envelopes and the inner envelopes containing the Technical Bid shall bear a warning not to open before the time and date for the opening of Technical Bid.
6.1.4	The inner envelopes containing the Price Bid shall bear a warning not to open until advised by the AEGCL.
6.1.5	If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.
6.2	AEGCL may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document, in which case all rights and obligations of the AEGCL and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

7.0	**Eligible Bidders:**
7.1	A Bidder may be a private entity or a government-owned entity or any combination of such entities with the intent to enter into an agreement supported by a letter of intent or under an existing agreement in the form of a joint venture, consortium, or association (JV). In the case of a JV: a) all partners shall be jointly and severally liable, and b) the JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.
7.2	A Bidder, and all partners constituting the 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. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.
7.3	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. Consequently all Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to: (a). they have controlling partners in common; or (b). they receive or have received any direct or indirect subsidy from any of them; or (c). they have the same legal representative for purposes of this bid; or (d). they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or (e). a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which it is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder, in more than one bid; or (f). a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the plant and services that are the subject of the bid.
7.4	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.
7.5	Bidders shall provide such evidence of their continued eligibility satisfactory to the AEGCL, as the Employer shall reasonably request.
7.6	In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.
8.0	**Financial Capability:**
8.1	Bidder will require to submit along with the bid the audited balance sheets and other legal financial statements acceptable to AEGCL, for the recent year 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.
8.2	***Average Annual Turnover*** : Minimum average annual turnover **INR 1,63,400.00.00** calculated as total certified payments received for contracts in progress or completed, within the last Year.
8.3	***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 following cash-flow requirement, **INR 1, 63,400.00** and (2) the overall cash flow requirements for this contract and its current works commitment.
9.0	**Experience:**
9.1	Experience on similar nature of works under contracts in the role of manufacturers, contractor, subcontractor, or management contractor for at least the last 7(Seven) years prior to the bid submission deadline.
9.2	Participation as manufacturer, contractor Experience having successfully completed similar works during last 7 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 **Rs**. **2,17,800.00**. (b) Two (2) similar completed works costing not less than **Rs. 2,72,200.00** (c) One (1) similar completed works costing not less than **Rs.4,35,500.00**
9.3	The Bidder must have experience of executing work of similar nature previously. The bidder must submit experience and completion certificate for scrutiny by AEGCL**.** Each of such project/ works should consist of completion certificate as per Clause 9.1.
10.0	**Evaluation Criteria:**
10.1	Evaluation will be done on the basis of *Bid Clause* No**. 7.0,** Eligible Bidders, Cl. No. **8.**0, Financial Capability, Cl. No. **9.0**., Experience and in accordance with the **Annexure I** to be duly filled in, signed and submitted by the bidder.

10.2	Price Bid of only **Responsive Techno-Commercial Bidders** will be opened.
10.3	**Arithmetical Error,** if observed while in Price Bid evaluation, same will only be corrected.
10.4	**Any post bid correction request will NOT BE ENTERTAINED.**
10.5 10.6	**Price Bid Envelope of the Non-responsive Techno Commercial Bidders will be returned** to the respective bidders against submission of a written request by the bidder. The following methodology will be practised for identification and treatmentof the Abnormally Low Bids (ALB) in this tender process of AEGCL: (i) Absolute Approach is to be considered 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 to be considered when there are at least 5(five) nos. of substantially responsive bids and the lowest bid price is 20% or more below AEGCL's cost estimate. 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. (iii) In case of an ALB, the tender evaluation committee/appropriate authority of the respective tenders shall undertake the following three stage review process which is as below: • To identify ALB as per the steps mentioned in SI no. 10.6.(i) and 10.6.(ii), whichever is applicable. • To seek and analyse the clarifications from the abnormally low Bidder in terms of resource inputs and pricing, including overheads, contingencies and profit margins. In that respect, the committee may refer to guideline of World Bank, AIIB, ADB etc. prescribed for ALB. • To decide whether to accept or reject the bid. • On acceptance of the bid, whether Additional Performance Security is to be imposed on the bidder supplemented by adequate justification. (iv) In case of acceptance of ALB with Additional Performance Security: • If any abnormally low bid is accepted with additional performance security, it is to be noted that the total performance security should not exceed 20% of the total contract value. • The additional performance security shall be treated as part of the original performance security and shall be valid for a period similar to that applicable for defect liability period of the contract. • Non submission of the additional performance security shall constitute sufficient ground for rejection of the bid and similar assessment shall then be initiated for next ranked bidder if that bidder is also identified as ALB.
11.0	**Late Bid:**
11.1	Any bid submitted ***after the due date and time*** will be rejected without any prejudice.
11.2	AEGCL will not be responsible for any Postal and/or Courier Delay in delivering the bid. The same received after the scheduled closing date and time will be rejected without any prejudice.
11.3	Bidding through EMAIL WILL NOT BE ACCEPTED.

12.0	**Clarification:**
12.1	A prospective Bidder requiring any clarification of the Bidding Document shall contact the AEGCL in writing at the AEGCL's address indicated in the BDS or raise his enquiries prior to 7 (seven) days of closing of the bid. The Employer will respond to any request for clarification, provided that such request is received no later than seven (7) days prior to the deadline for submission of bids. The AEGCL's response shall be in writing with copies to all Bidders who have acquired the Bidding Document including a description of the inquiry but without identifying its source. Should AEGCL deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so.
12.2	The Bidder is advised to visit and examine the site where the work is to be Carried out and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for the provision of plant and services. The costs of visiting the site shall be at the Bidder's own expense.
12.3	The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
12.4	The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
12.5	The Bidder is requested, as far as possible, to submit any questions in writing, to reach the AEGCL not later than one week before the pre-bid meeting if there is provision of Pre Bid Meeting.
12.6	Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by AEGCL exclusively through the issue of an Addendum but not through the minutes of the pre-bid meeting.
12.7	Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
13.0	**Amendment of Bidding Document:**
13.1	At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.
13.2	Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from AEGCL.

13.3	To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, AEGCL may, at its discretion, extend the deadline for the submission of bids.
14.0	**Preparation of Bids by the Bidders:**
14.1	**Cost of bidding:** The Bidder shall bear all costs associated with the preparation and submission of its Bid, and AEGCL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
14.2	**Language of Bid:** The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and AEGCL, shall be written in the English language.
14.3	**Bid Prices and Discounts:**
14.3.1	Unless otherwise specified in the Bid Document and/or AEGCL's Requirements, bidders shall quote for the entire plant and services 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 document in respect of the including procurement and subcontracting (if any), delivery, construction, installation and completion of the Work. This includes all requirements under the Contractor's responsibilities for completing the work and where so required by the bidding document, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as may be specified in the Bidding Document, all in accordance with the requirements of the General Conditions. Items against which no price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed to be covered by the prices for other items.
14.3.2	Bidders are required to quote the price for the commercial, contractual and technical obligations outlined in the bidding document. If a Bidder wishes to make a deviation, such deviation shall be listed. The Bidder shall also provide the additional price if any, for withdrawal of the deviation.
14.3.3	Bidders shall give a breakdown of the prices in the manner and detail called for in the Price Schedules. Where no different Price Schedules are included in the Bidding Document, bidders shall present their prices in the following manner: (a)Separate numbered Schedules shall be used for each of the following elements. (i) The total amount from each Schedule shall be summarized in a Grand Summary giving the total bid price(s) to be considered.
14.3.4	The price of the work shall be quoted as the Base Price or EXW Price
14.3.5	Sales Tax, GST and all other taxes (as applicable) payable on the work should be indicated separately. In case of failure to indicate so AEGCL will consider such taxes are included in the Offered Price.
14.3.6	Whenever forest produces like sand, stone, timbers etc are used in the work the

	contractor have to furnish documentary proof that requisite royalty on such produces has been paid to the concerned Department.
14.3.7	When the work being "work contract" which is one and individual and which involves no separate contract for the sale of materials, the contractor shall have not be entitled to get any VAT and or any other taxes, levies reimbursed from the AEGCL for the supply of the materials.
14.3.8	Taxes like work contract, income tax etc. which need to be deducted at source as per the prevailing law of the land, will be deducted at source.
14.3.9	**The Prices shall be FIXED and FIRM:** The Bided Price should on Fixed Price basis, prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.
15.0	**Additional Requirements:**
15.3.1	**Bidders(s) knowledge from actual personal investigation of the resources of the region or District (S) in which he/they offers the work.**
15.3.2	**The Bidder shall furnish copy of their PAN Card. The card must be in the name of firm, in case the bidder is a partnership Firm.**
15.3.3	**In case the bidder is a partnership Firm, the work experience, solvency and turn over shall be in the name of partnership Firm only.**
15.3.4	**Upto date GST Return, and Annual turn over for last three financial year**
15.3.5	**GST registration No.**
15.3.6	**Registered Power of attorney, if any.**
15.3.7	**I T Return for last three financial year**
15.3.8	**Audited Balance Sheet and Profit and Loss Account for last three financial year**
15.3.9	**Valid Labour license**
15.3.10	**Updated tools and plants**
15.3.11	**Electrical License/supervisory license above 33kV Voltage level in case of electrical work**
15.3.12	**ESIC or EPF**
15.3.13	**Name, qualification and Technical supervisors and staff under the employment of the tenderer**
16.0	**Negotiation with successful bidder:**
	The AEGCL reserve the right to hold negotiations with lowest who should be lowest, valid, eligible and technically acceptable bidder considered for award of contract directly if the rates were not unreasonably high.
17.0	**TECHNICAL REQUIREMENTS**
17.1	**Intent of specification**
	This section of the specification deals with the technical information & criteria for "**REPAIRING /REPLACEMENT OF DAMAGED TOWER LEGS INCLUDING ALL NECESSARY CIVIL WORKS AT LOC NO. 121(Tension) OF 132KV ROWTA-RANGIA TL".** The Contractor's proposal shall be based on the use of materials complying fully with the requirements

	specified herein.
18.0	**Scope** The scope of work under this contract consists of : a) Dismantling of existing tower at loc no. **121(Tension)** of 132V Rowta-Rangia Line at Bukrajhar as per Bill of Quantity and bid specification b) Repairing/replacement of damaged leg including all civil work**,** PCC& RCC work upto 1.2 mtr from ground level **,**Painting of B type tower and 3 mtr extension, earth of tower loc no. 121 including supply of fittings etc c) Supply and erection of superstructure and other required materials d) Lowering of existing line conductor and stringing of conductor. ERS shall be utilized in the period from lowering of the conductor & till charging of the transmission line. Arrangement of ERS will be done by AEGCL. However, transportation, erection and dismantling of 1 ERS tower to be loaded and carried to and fro Kahilipara GSS and site including site preparation , anchoring etc . shall be in the scope of the contractor. Also, contractor shall be responsible for stringing and lowering of conductor on ERS tower e) Freight and Transit Insurance,Transportation, head loading, storage to and from site and store and site insurance of all material at the site f) Temporary bolder protection of tower at loc no. 121 with stone pitching as mentioned in the BOQ g) Compensation to be paid during erection of ERS h) Restringing of conductor to existing tower after necessary repairing All works and labour as per Bill of Quantity and bid specification is under the scope of the bidder. The Bill of Quantities for indicative purposes is furnished in Price Schedules.
19.0	**Contractor to inform himself fully**
19.1	The Contractor should ensure that he has examined the General Conditions, qualifying criteria, Specifications and Schedules and has satisfied himself as to all the conditions and circumstances affecting the contract price 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.
19.2	AEGCL shall not be responsible for any misunderstanding or incorrect information obtained by the Contractor other than information given to the Contractor in writing by AEGCL.
20.0	**Conformity with Indian Electricity rules & other local regulations wherever applicable:**
20.1	The Contractor shall note that all substation works shall comply with the latest provisions of Indian Electricity Rules and with any other regulations. Local authorities concerned in the administration of the rules and regulation relating to such works shall be consulted, if necessary, in regard to the rules and regulations that may be applicable.
20.2	The materials covered by this specification 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.
20.3	The Contractor shall also comply with the Minimum Wages Act 1948 and the payment of

	Wages Act (both. Of the Government of India and State of Assam) and the rules made there under in respect of any employee or workman employed or engaged by him or his Sub-Contractor.
20.4	All registration and statutory inspection fees, if any, in respect of his work pursuant to this Contract shall be to the account of the Contractor. However, any registration, statutory inspection fees lawfully payable under the provisions of the statutory laws and its amendments from time to time during erection in respect of the Substation Works, ultimately to be owned by the Employer, shall be to the account of the Employer. Should any such inspection or registration need to be re-arranged due to the fault of the Contractor or his Sub-Contractor, the additional fees to such inspection and/or registration shall be borne by the Contractor.
20.5	In case of any conflict between the standards and this specification, this specification shall govern.
21.0	**Employer Supervision**
21.1	The scope of the duties of the Employer, pursuant to the contract, will include but not be limited to the following. a) Inspect, accept or reject any material and work under the Contract. b) Issue certificate of acceptance and/or progressive payment and final payment certificate.
22.0	**Packing:**
	All the materials shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at Site till the time of erection. The Supplier shall be responsible for any loss or damage during transportation, handling and storage due to improper packing.
	The Supplier shall include and provide for securely protecting and packing the materials so as to avoid loss or damage during transport by air, sea, rail and road.
	All packing shall allow for easy removal and checking at site. Wherever necessary, proper arrangement for attaching slings for lifting shall be provided. All packages shall be clearly marked for with signs showing 'up' and 'down' on the sides of boxes, and handling and unpacking instructions as considered necessary. Special precaution shall be taken to prevent rusting of steel and iron parts during transit by sea.
	The cases containing easily damageable material shall be very carefully packed and marked with appropriate caution symbols, i.e. fragile, handle with care, use no hook etc. wherever applicable.
	Each package shall be legibly marked by the-Supplier at his expenses showing the details such as description and quantity of contents, the name of the consignee and address, the gross and net weights of the package, the name of the Supplier etc.
23.0	**Materials handling and storage:**
	(a) 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. (b) 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. (c) 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. (d) All items shall be handled very carefully to prevent any damage or loss. The materials stored shall be properly protected to prevent damage. (e) All the materials stored in the open or dusty location must be covered with suitable weatherproof and flameproof covering material wherever applicable. (f) The Employer will verify the storage facilities arranged by the contractor and dispatch clearance will be provided only after Employer is satisfied.
24.0	**DAMAGE TO PERSON AND PROPERTY: -**
	The Contractor shall be responsible for all injury to the work or to workmen, to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of contractor or its employees, against whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this Contract. The Contractor shall at his cost effect the insurance necessary and indemnify AEGCL entirely from all responsibility in this respect. The scope of insurance is to include loss or damage to the work and workmen due to carelessness, accident including fire, earthquake, floods, all medical expenses, compensation to be borne in the event of accident etc., damage or loss to the Contract itself till this is made over a complete state. Insurance is compulsory and must be affected from the very initial stage and should cover the entire contract period till handing over of complete works. The Contractor shall also be responsible for anything which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this Contract. AEGCL shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or occurring from or in respect of any such claim for damages from any sums due or to become due to the Contractor.
25.0	**LABOUR LEGISLATION: -**
	The Bidder shall comply with the provisions of the Apprentices Act 1961, payment of Wages Act1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Industrial Disputes Act 1947, Maternity Benefits Act 1961, and the Contract Labour (Regulation and Abolition) Act 1970, Provident Fund Act or the modifications thereof or any other laws relating thereto and the rules made there under from time to time. b) The Bidder shall indemnify and keep indemnified AEGCL against payments to be made under and for the observance of the laws aforesaid and the Contractors' Labour Regulations without prejudice to his right to claim. The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract. c) The Bidder shall at his own expense arrange for all the safety provisions for the safety of all workers and employees directly or indirectly employed on the work by the Bidder. d) The Bidder shall be fully responsible at his own

	expenses for compliance all the labour regulations and rules to be observed by them. The Bidder shall fully indemnify AEGCL against any action by the state and/or Central Government for any default or alleged default by the Bidder for violation of any of such rules and regulations. If, due to any default of the Bidder, AEGCL has to incur any expenditure for compliance of the rules and regulations or for any other reason connected with such default, AEGCL shall be entitled to recover from the Bidder all such expenditure in full from any payment due to the Bidder.
26.0	**TECHNICAL SPECIFICATIONS**
26.1	A brief description of scope of work covered under this Bidding Document is furnished below: **REPAIRING /REPLACEMENT OF DAMAGED TOWER LEGS INCLUDING ALL NECESSARY CIVIL WORKS AT LOC NO. 121(TENSION) OF 132KV ROWTA-RANGIA TL**
26.2	*SERVICE CONDITIONS* The plant and materials supplied shall be suitable for operation under the following climatic and other conditions: 1. Peak ambient day temperature in stil lair :45°C 2. Minimum night temperatures :0°C 3. Reference ambient day temperature :45°C 4. Relative Humidity a) Maximum :100 % b) Minimum :10% 5. Altitude : Below 1000M above MSL 6. Maximum wind pressure :As per IS: 802 latest code. 7. Seismic Intensity :ZONE-V as per IS 1893.
26.3	***GENERAL REQUIREMENTS*** The scope of works briefly covers the following: a) Dismantling of existing tower at loc no. 121(Tension) of 132V Rowta-Rangia Line at Bukrajhar as per Bill of Quantity and bid specification b) Repairing/replacement of damaged leg including all civil work**,** PCC& RCC work upto 1.2 mtr from ground level **,**Painting of B type tower and 3 mtr extension, earth of tower loc no. 121 including supply of fittings etc c) Supply and erection of superstructure and other required materials d) Lowering of existing line conductor and stringing of conductor. ERS shall be utilized in the period from lowering of the conductor & till charging of the transmission line. Arrangement of ERS will be done by AEGCL. However, transportation, erection and dismantling of 1 ERS tower to be loaded and carried to and fro Kahilipara GSS and site including site preparation , anchoring etc . shall be in the scope of the contractor. Also, contractor shall be responsible for stringing and lowering of conductor on ERS tower e) Freight and Transit Insurance,Transportation, head loading, storage to and from site and store and site insurance of all material at the site f) Temporary bolder protection of tower at loc no. 121 with stone pitching as mentioned in the BOQ

	g) Compensation to be paid during erection of ERS h) Restringing of conductor to existing tower after necessary repairing All works and labour as per Bill of Quantity and bid specification is under the scope of the bidder. The Bill of Quantities for indicative purposes is furnished in Price Schedules.
26.4	**SITE VISIT:** The bidders must visit and examine the sites of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid. The costs of visiting the Site shall be at the bidder's own expense. The location of work is Loc-121 of 132KV Rowta-Rangia TL at Bukrajhar. For any site related queries, the contact details of the Depota Division may be obtained via mail mentioned in the bid.
26.5	**QUERY ON THE BIDDING DOCUMENT:** Prospective bidders may submit queries, if felt necessary, requesting clarification of any bid clause. Such queries must be submitted to the office latest by the Tender clarification/ submission end date and time mentioned in the NIT. Purchaser shall clarify to the extent felt necessary or issue a corrigendum for any amendment required in the bidding document. Such corrigendum/clarification shall be made available on the official website of AEGCL, www.aegcl.co.in.
26.6 **26.7**	**TECHNICAL SPECIFICATION** **Standards** The tension string assemblies, insulator discs and hardware offered, material and processes adopted in the manufacture of insulator discs and hardware shall conform to the provision of the following standards or equivalent other international standards: (1) IS: 731 Specification of porcelain insulators for overhead power lines. (2) IS: 2486 Specification of insulator fittings for overhead power lines. (3) IS: 2026 Specification for recommended practice for hot dip galvanizing of steel (4) IS: 2633 Specification for method for testing uniformity of coating on zinc coated articles. (5) IS: 2107 Specification for white hearth malleable iron castings. (6) IS: 2108 Specification for black hearth malleable iron castings.
26.8	**TOWER SUPERSTRUCTURE AND ACCESSORIES** **GENERAL** The AEGCL shall provide drawings for G.I. towers to the successful bidder at the time of award of contract. The Contractor has to regenerate three copies of drawings for approval. The contractor shall supply superstructure including leg and crossmember. . **MATERIALS** Materials for steel structure including nuts, bolts, anchor bolts, washers etc shall be of tested quality and shall conform to IS: 226 and IS: 2062 (for plates over 20mm thick) Dimensions of all bolts and nuts shall conform to IS 6639 and their mechanical properties shall conform to property class 4.6 and class 4 of IS: 1367 for bolts and nuts respectively. Dimensions and mechanical properties of all washers shall conform to IS: 6610 and IS: 3063 respectively. Nuts to be used with high strength bolts shall conform to IS 6623.Other materials used in the construction of steel

	structure shall conform to appropriate IS specification for the materials wherever they exist. All members of the steel structures, bolts, nuts and washers shall be galvanized.
26.9	**FABRICATION** The workmanship shall conform to the best practice in modern structural shops and to the provisions of IS: 802 (Part-II) and IS: 800 as applicable.
26.10	**CONNECTIONS** All connections shall be designed for the full strength and properties of the members. The fabrication, in general shall be bolted type. Bolts shall also be used for field connections unless otherwise specified in the drawings or permitted by the site engineer for any special circumstances. Bolting shall be conforming to IS: 802 (Part-I & II) and IS: 800 as applicable. Welding where required shall be generally done in accordance with the relevant IS standards. Selection of electrodes shall conform to IS: 815. MS electrodes for welding shall conform to IS 814. Welding procedure shall conform to IS: 816 and IS 823.
26.11	**TOLERANCES.** Fabrications tolerances shall conform to IS: 802 (Part-II) and IS: 800 as applicable.
26.12	**MARKING** The marking procedure shall conform to IS: 802 and IS: 800 as applicable.
26.13	**SHOP ASSEMBLY** All steelworks (one in each type) shall be temporarily shop assembled complete or as directed by the site engineer before commencing mass fabrication to ensure proper field erections. Reaming of untrue holes will not be allowed. A reasonable amount of drifting will be allowed in assembling. Shop assembled parts shall be dismantled for shipment.
26.14	**Dismantling of existing tower** The existing tower(B+3) with damaged tower footing (4 nos.) at loc no. 121 of the mentioned line at Bukrajhar is to be dismantled for changing of 1st and 2 nd section tower legs for repairing of the damaged leg including necessary civil work at the location.
26.15	**Destringing Of Conductor:** Dismantling of existing conductor(3 nos.) from the tower at loc no. 121 and its accessories and restringing the conductors in 1 no. of ERS tower for the time of repair shall be done as per BoQ and site incharge.
26.16	**ERS tower** ERS shall be utilized in the period from lowering of the conductor from the existing tower & till charging of the transmission line. Arrangement of ERS will be done by AEGCL. However, transportation, erection and dismantling of 1 ERS tower to be loaded and carried to and fro Kahilipara GSS and site at Bukrajhar including site preparation , anchoring, excavation etc . shall be in the scope of the contractor. Also, contractor shall be responsible for stringing and lowering of conductor on ERS tower. After repairing/ replacement of the damaged legs including civil works like PCC and RCC upto 1.2 mtr from ground for mufflering, Painting of the Btype tower and +3mtr extension , erection of the superstructure, the conductors shall be lowered from the ERS tower and stringing of the same shall be done to the repaired tower and charged accordingly. The ERS tower shall be dismantled including deanchored ,the tower material sorted, loaded and carried back to

	head camp by head loading and subsequently transported back to Kahilipara GSS. Total weight of ERS is 5.2 MT.
26.17	**Compensation during ERS tower erection** During the erection of ERS tower , some vegetation and growth have to be cut which will require compensation as per approved rate list 2018. The process and payment of compensation is under the scope of the contractor.
26.18	**Stability of Structure** The Contractor shall be responsible for the stability of the structure at all stages of its erection at site and shall take all necessary measures by the additions of temporary bracings and guying to ensure adequate resistance to wind and also to loads due to erection equipment and their operations. Guying and bracing shall be done for erection equipment and their operations. Guying and bracing shall be done in such a way that it does not interface with the movement or working of other agencies working in the area. For the purpose of guying, the Contractor shall not use other structures in the vicinity which are likely to be damaged by the guy. Such temporary bracings shall neither be included in the measurement nor extra rate shall be payable. Such temporary bracings used shall be the property of the Contractor and may be removed by him at the end of the job from the site of work.
26.19	**GENERAL SPECIFICATIONS OF CIVIL WORK(RCC, PCC For mufflering)** **a. SITE PREPARATION** This section of the specification covers site preparation of the Areas as indicated in the drawings. 1. The scope of works under this contract consist of providing of all labours, materials, scaffolding equipment and plants and transportation of all incidental items not shown or specified but reasonably implied or necessary for the proper completion of work. The scope of work covered by this specification is primarily complete civil works. 2. All works required for site preparation will have to be carried out contractor at his own expense, whenever directed by the Site Incharge. 3. The Contractor shall clear the site of unnecessary vegetation to prepare for work only as per directions given by the Site Incharge. 4. Any unnecessary structures are to be demolished and serviceable materials be stacked and stored as directed by AEGCL. 5. Any waste or unwanted material has to be disposed by the contractor as ordered by AEGCL. No materials will be allowed to leave the site with permission of the Site In-charge. 6. The Contractor will have to construct roads or any means for transportation as instructed by the Site in-charge if the site is not easily accessible. 7. All water which may accumulate on the site before or during the progress of the works and excavations shall be removed and drained from the site to the satisfaction of the Site In-charge by the Contractor. 8. Any other work required for adequate preparation of the site shall be carried out by the Contractor. **b. PROPERTIES OF CONSTRUCTION MATERIALS**

This clause specifies the properties of common building materials unless otherwise mentioned in the drawings or schedule of items. All materials viz., cement, steel, aggregates, water etc. which are to be used for well construction are detailed below. However, aggregates more than 20mm shall not be used, except for lean concrete.

c. COARSE AGGREGATES/ STONE

1. All coarse aggregates shall be as per IS:383 consisting of hard, strong, compact grained and durable pieces of crushed stone having uniform in texture and colour and free from decay, flaws, veins, cracks and sand holes. Coarse aggregates should be of angular shape & rectangular surface and shall be free from organic or clay coatings and other impurities like disintegrated stones, soft flaky particles, adherent coatings, clinkers, slag, mica and any other materials liable to affect the strength, durability or appearance of concrete. The surface of a freshly broken stone shall be bright, clean, and free from any dull, chalky or earthy appearance. Coarse aggregates with round surface shall not be used. A coarse aggregates shall not absorb more than 5% of its weight of water after 24 hours immersion. Samples shall be submitted by the Contractor and approved samples shall be retained by the Owner for comparison of bulk supply.

2. Sieving and washing of aggregates by approved method shall be carried out wherever required.

3. Grading of coarse aggregate shall generally conform to IS:383 and shall be such as to produce a dense concrete of the specified proportions and strength and of consistency that will work readily into position without segregation.

4. The maximum size of aggregate shall be as follows unless specified otherwise: a) Reinforced concrete with very narrow space - 10mm. b) Reinforced concrete & Plain Concrete - 20mm. c) Lean Concrete M15 -40mm.

d. CEMENT

1. Cement used shall generally be ordinary Portland Cement conforming to the latest Indian Standard Code IS:8112 or I S:12269. Alternatively, other varieties of cement other than ordinary Portland Cement such as Portland Pozzolana Cement conforming to IS;1529 or Portland Slag Cement conforming to IS:455 can also be used. The contractor shall submit the manufacturer's certificate, for each consignment of cement procured, to the Owner. However, Owner reserves the right to direct the Contractor to conduct tests for each batch/lot of cement used by the Contractor and Contractor will conduct those tests free of cost at the laboratory so directed by the Owner. The Contractor shall also have no claim towards suspension of work due to time taken in conducting tests in the laboratory.

2. Changing of brand or type of cement within the same structure shall not be permitted without the prior approval of the Owner. Sulphate Resistant Cement shall be used if Sulphate content is more than the limits specified in IS:456, as per Geotechnical investigation report and as mentioned in the construction drawing. No additional payment shall be made for using Sulphate Resistant Cement.

3. The cement shall be stored in dry enclosed shed, well away from the walls and insulated from the floor to avoid contact with moisture. The cement shall be stacked in easily countable stacks to facilitate removal of first in first out basis. The cement bags shall be gently kept on the floor to avoid leakage of cement from the bags. Sub-standard or partially set cement shall be immediately removed from the site as soon as it is detected. Cement stored for period beyond 90 days shall be tested before use.

e. SAND

1. Sand shall be hard, durable, clean and free from any adherent coatings or organic matter and shall not contain clay balls or pellets. The sand shall be free from impurities such as iron pyrites, alkalis, salts, coal, mica, shale or other laminated materials, in such forms or quantities as to affect adversely the hardening, strength, durability or appearance of concrete or to cause corrosions to any metal in contact with such concrete. In no case the cumulative percentage of impurities in sand shall be more than 5% by weight. All sand shall be properly graded. Unless otherwise directed by the Owner all sand shall pass through IS Sieve no. 2.36mm. Sand for concrete shall conform to IS:383 .

2. All coarse aggregates & sand shall be stored on brick soling or an equivalent platform so that they do not come in contact with dirt, clay, grass or any other injurious substance at any stage. Aggregate of different sizes shall be kept in separate and easily measurable stacks. If so desired by the Owner, aggregates from different sources shall be stacked separately with proper care to prevent intermixing.

f. WATER

1. No source of water is available near the tower locations. As such shallow temporary ring well is to be constructed for construction purpose. 3.5.9.2 Water shall be clean, fresh and free from organic matters, acids or soluble salts and other deleterious substances which may cause corrosion, discoloration, efflorescence etc. Potable water is generally considered fit for use. Water to be used shall comply with the requirements of IS:456. Average 28 days compressive strength of at least three 15 cm. cubes of concrete prepared with proposed water shall not be less than 90% of average strength of three similar cubes prepared with distilled water. PH of water shall generally be not less than 6.

g. STORAGE & HANDLING OF CONSTRUCTION MATERIALS

1. All materials shall be stored by the Contractor in a manner aiding convenient access for identification and inspection at all times. The storage arrangements shall be subject to the approval of the Owner. Storage of materials shall be as described in IS:4082 .

2. All materials shall be so stored as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality and fitness for the work. Any material which has deteriorated or has been damaged or is otherwise considered defective by the Owner shall not be used for concrete, and shall be removed from site immediately, failing which, the Owner will get the materials removed and the cost thereof shall be recovered from W.O/LOI value. The Contractor shall maintain up to date accounts of receipt, issue and balance (stock wise) of all materials.

h. Reinforcement

Reinforcement steel shall be stored consignment wise and size wise, off the ground and under cover. It shall be protected from rusting, oil grease and distortions. If directed by the Owner, the reinforcement steel may have to be coated with cement wash before stacking, to prevent scale and rust at no extra cost to the Owner. The stacks shall be easily measurable. Only steel needed for immediate use shall be removed from storage. Fabricated reinforcement shall be carefully stored to prevent damage, distortion, corrosion & deterioration.

i. **Cement concrete**

This section of the specification deals with cement concrete, plain or reinforced, and covers the requirement for concrete mix design, strength and quality, pouring at all levels, forming, protection, curing finishing, admixtures, inserts and other miscellaneous works. The provisions of IS:456 shall be complied with, unless permitted otherwise. Any other Indian Standard Code shall form the part of the specification to the extent it has been referred to or applicable within this specification. The Contractor shall furnish all labour, material and equipment to form, place and

finish all structural concrete, concrete works and miscellaneous items complete, as described herein. Concrete grade shall be M20(1:1.5:3)

j. ADMIXTURES

1. The admixtures in concrete for promoting workability, improving strength or for any other purpose, shall be used only after the written permission from the Owner. The Admixtures shall conform to IS:9103.

2. Admixtures should not impair durability of concrete nor combined with the constituent to form harmful compounds nor increase the risk of corrosion of reinforcement.

3. Addition of admixtures should not reduce the specified strength of concrete in any case. The workability, compressive strength and the slump loss of concrete with and without the use of admixtures shall be established during the trial mixes before use of admixtures.

4. The chloride content of admixtures shall be independently tested for each batch before acceptance.

5. If two or more admixtures are used simultaneously in the same concrete mix, data shall be provided to assess their interaction and to ensure their compatibility.

6. In case admixtures are used in the concrete for any structure, fresh mix design be done considering the admixture with the specific approval from Owner. No extra payment shall be made to the Contractor on this account.

k. **GRADES OF CONCRETE**

1. The minimum grade of concrete to be used for piling shall be M-20 with minimum cement content 400 kg/m3 and maximum water cement ratio of 0.5. Concrete shall conform to the controlled design mix as specified in IS:456 . In addition, nominal mixes of 1:2:4 (with aggregates of nominal size 40mm maximum, by weight converted to equivalent volume shall also be used as per field quality plan. The concrete in aggressive surroundings due to presence of sulphate, etc., shall conform to IS:456. The slump of concrete shall be maintained between 150 to 200 mm.

2. The Contractor shall carry out concrete mix design in accordance with IS:10262 and submit mix design calculations and get them approved from the Owner well in advance of installation of well foundations. The Contractor shall carry out adequate number of tests in accordance withIS:456 to ensure concrete of the minimum specified strength at requisite workability(i.e.slump).

l. WORKMANSHIP

1. All workmanship shall be according to the current Industry standard and best practices. Before starting a pour the Contractor shall obtain the approval of the Owner in a “Pour Card” maintained for this purpose. He shall obtain complete instructions about the material and proportions to be used, Slump / workability, Quantity of water per unit weight of cement, number of test cubes to be taken, type of finishing to be done, any admixture to be added, any limitation on size of pour and stopping of concrete in case of premature stopping of pours.

m. **MIXING OF CONCRETE**

1. All design mix concrete shall be mixed in mechanically operated mixer of an approved size and type capable of ensuring a uniform distribution on the materials through the mass. However, contractor can also use central batching plant situated within the area allocated for the Contractor’s particular use.
2. The proportions of sand, coarse aggregate, cement and water shall be as determined by the mix design. However, in case of nominal mix concrete (for lean concrete only) the proportions of sand, coarse aggregate, cement and water shall be fixed. The proportions, as determined for design mix concrete and shall always be approved by the Owner. The quantities of the cement, sand and coarse aggregates shall be determined by weight. However, for a faster progress at site, quantities of the cement, sand and coarse aggregates can be converted to equivalent volume. The water shall be measured

accurately after giving proper allowance for surface water present in the aggregate for which regular check shall be made by the Contractor.

3. The water shall not be added to the mix until all the cement and aggregates consisting the batch are already in the drum and dry mixed for at least one minute. Mixing of each batch shall be continued until there is a uniformity in colour and consistency but in no case shall mixing be done for less than two (2) minutes and at least forty (40) revolutions after all the materials and water are in the drum. When absorbent aggregates are used or when the mix is very dry, the mixing time shall be extended as may be directed by the Owner. Mixers shall not be loaded above their rated capacity as it prevents thorough mixing. If there is segregation after unloading from the mixer the concrete should be remixed.
4. The entire contents of the drum shall be discharged before the ingredients for the next batch are fed into the drum. No partly set or remixed or excessively wet concrete shall be used and it shall be immediately removed from site. Each time the work stops, the mixer shall be thoroughly cleaned and when the next mixing commences, the first batch shall have 10% additional cement at no extra cost to the Owner to allow for loss in the drum.

n. CONVEYING CONCRETE

Concrete shall be handled and conveyed from the place of mixing to the place of final laying as rapidly as practicable, by approved means, before the initial setting of the cement starts. Concrete should be conveyed in such a way as will prevent segregation of Concrete which may occur during transportation of concrete. In case of any such segregation during transport, the concrete shall be re-mixed. During very hot or cold weather, if directed by the Owner, concrete shall be transported in deep containers, having mortar leak proof, which will reduce the rate of water loss by evaporation and loss of heat. Conveying equipment for concrete shall be well maintained and thoroughly cleaned before commencement of concrete mixing. Such equipment shall be kept free from set concrete.

o. PLACING OF CONCRETE

1. Formwork and placement of reinforcement shall be approved in writing by the Owner before concrete is placed. The forms shall be well wetted and oil shavings, dirt and water that may have collected at the bottom shall be removed before concrete is placed. Concrete shall be deposited in its final position without segregation, re-handling or flowing. The interval between adding the water to the dry materials in the mixer and the completion of the final placing inclusive of compaction of the concrete shall be well within the initial setting time for the particular cement in use or as directed by the Owner. As far as possible, concrete shall be placed in the formwork by means approved by the Owner and shall not be dropped from a height or handled in a manner which may cause segregation. Any drop over 1800 mm shall have to be approved by the Owner. Once the concrete is deposited in its final position, it shall not be disturbed. Care should be taken to avoid displacement of reinforcement or movement of formwork.
2. The placing of concrete shall be a continuous operation with no interruption in excess of 30 minutes between the placing of continuous portions of concrete.
3. After the concrete has been placed it shall be spread and thoroughly compacted by approved mechanical vibration to a maximum subsidence without segregation and thoroughly worked around reinforcement or other embedded fixtures into the correct form and shape. Vibrators shall not be used for pushing and shovelling concrete into adjoining areas. Vibrators must be operated by experienced men and over-vibration shall not be permitted. Head tamping in some case may be allowed subject to the approval of the Owner. Care must be taken to ensure that the inserts, fixtures, reinforcement and form work are not displaced or disturbed during placing of concrete. No concrete shall be placed in open while it rains. If there has been any sign of washing of cement and sand, the concrete shall be entirely removed immediately. Suitable precautions shall be taken in advance to guard against rains before leaving the fresh concrete unattended.
4. No accumulation of water shall be permitted on or around freshly laid concrete. Tie beams, well caps, footings shall be poured in one operation normally, in special circumstances with the approval of the Owner these can be poured in horizontal layers

not exceeding 500 mm in depth. When poured in layers, it must be ensured that the under layer, is not already hardened. Blending of under layer if any, shall be effectively removed. 3

5. Wherever vibration has to be applied externally the design of formwork and the disposition of vibrators shall receive special consideration to ensure efficient compaction and to avoid surface blemishes.

p. INSERTS

All anchors, anchor bolts, inserts, etc. and any other items those are required to be embedded in the concrete shall be placed in correct position before pouring. Extra care shall be taken during pouring operation to maintain their position as indicated in the drawings. These inserts shall be welded to the nearest reinforcement to keep them in position and all such welding shall be deemed to be included in the unit rate quotedand no extra payment shall be made on this account.

q. FINISHES OF CONCRETE

All concrete surfaces shall have even and clean finish, free from honeycombs, air bubbles, fins or other blemishes. The formwork joints marks for concrete work exposed to view shall be rubbed with carborandum stone and defects patched up with a paste of1 part sand and 1 part cement and cured. The finish shall be made to the satisfaction of the Owner. The unit rate of concrete work shall be inclusive of the cost of cleaning and finishing exposed surface as mentioned above.

26.20 **GENERAL REQUIREMENTS**

1. Reinforcement steel of same type & grade shall be used for structural reinforcement work as detailed in the drawing released by the Owner.No work shall be commenced without proper verification with the bar bending schedule provided in the drawing
2. Contractor shall supply, fabricate and place reinforcement to shapes and dimensions as indicated on the drawings and as per specifications. The reinforcement shall be either plain or deformed steel bars or welded wire fabric conforming to relevant IS specifications.
3. Any adjustment in reinforcement to suit field conditions and construction joints other than shown on drawings shall be subjected to the approval of Owner.

26.21 **PLACING IN POSITION**

1. All reinforcement shall be accurately fixed and maintained in position as shown on the drawings by approved means as mild steel chairs, and/or concrete spacer blocks. Bars intended to be in contact, at crossing points, shall be securely bond together at all such points by two numberNo.20G annealed soft-iron wire. Binders shall tightly embrace the bars with which they are intended to be in contact and shall be securely held. The vertical distance between successive layers of bars shall be maintained by provision of mild steel spacer bars. They should be so spaced that the main bars do not sag perceptibly between adjacent spacers.
2. The placing of reinforcements shall be completed well in advance of concrete pouring. Immediately before pouring, the reinforcement shall be checked by the Owner for accuracy of placement and cleanliness and necessary correction as directed by him shall be carried out. The cover for concrete over the reinforcements shall be as shown on the approved drawings unless otherwise directed by the Owner. Care should be taken to ensure that projecting ends of ties and other embedded metal do not encroach into the concrete cover. Where concrete blocks are used for ensuring the cover and positioning reinforcement, they shall be made of mortar 1:2 (one part cement: two parts sand) by volume and cured for at least (7) days. The sizes and locations of the concrete blocks shall be approved by the Owner.
3. Longitudinal reinforcement in well shall be high yield strength cold twisted deformed steel bars conforming to IS:1786. Thermo mechanically Treated (TMT) bars (equivalent grade) in place of Cold twisted deformed steel bars are also accepted. Lateral reinforcement in well shall be of tor steel conforming to IS:432 Part-I.
4. The longitudinal reinforcement shall project 52 times its diameter above cut-off level

	unless otherwise indicated in the drawing. 5. The minimum diameter of the links or spirals bar shall be 8mm and the spacing of the links or spiral shall not be less than 150mm and in no case more than 250mm. The laterals shall be tied to the longitudinal reinforcement to maintain its shape and spacing. 6. Reinforcement cage shall be sufficiently rigid to withstand handling and installation without any deformation and damage. As far as possible number of joints (laps) in longitudinal reinforcement shall be minimum. In case the reinforcement cage is made up of more than one segment, these shall preferably be assembled before lowering into casing tube/pile bore by providing necessary laps as per IS:456. 7. The minimum clear distance between the two adjacent main reinforcement bars shall normally be 100mm for the full depth of cage, unless otherwise specified**.** 8. The laps in the reinforcement shall be such that the full strength of the bar is effective across the joint and the reinforcement cage is of sound construction. Laps and anchorage lengths of reinforcing bars shall be in accordance with IS:456, unless otherwise specified. If the bars in a lapare not of the same diameter, the smaller will guide the lap length. 9. Laps shall be staggered as far as practicable and as directed by the Owner. Not more than 33% bars shall be lapped at a particular section. Lap joints shall be staggered by at least 1.3 times the lapped length (Center to Center). 10. Proper cover and central placement of the reinforcement cage in the pile bore shall be ensured by use of suitable concrete spacers or rollers, as required, without any additional cost to the Owner. 11. Minimum clear cover to the reinforcement shall be 75mmunless otherwise mention 12. Unless otherwise specified by the Owner reinforcement shall be placed within the following tolerance as specified in IS:456:2000. a) For effective depth 200mm or less +10mm. b) For effective depth more than 200mm +15mm. 13. The cover shall in no case be reduced by more than one-third of specified cover or 5mm whichever is less. Welding of reinforcement bars shall be avoided. However, welding may be done in specific case subject to prior permission from the Owner.
26.22	EXCAVATION 1. The Contractor shall control the grading in the vicinity of all excavation so that the surface of the ground will be properly slopped or diked to prevent surface water from running into the excavated areas during construction. 2. Excavation shall include the removal of all materials required to execute the work properly and shall be made with sufficient clearance to permit the placing, inspection and setting of forms and completion of all works for which the excavation was done. 3. Side and bottoms of excavation shall be cut sharp and true, undercutting shall not be permitted. Each side of excavation shall be used in lieu of formwork for placement of concrete unless authorised, in special cases, by the Owner, where limitation of space for larger excavation necessitate such decision. 4. When machines are used for excavation, the last 300mm before reaching the required level shall be excavated by hand or by such equipment that will leave the soil at the required final level, in its natural conditions. 5. Suitability for bearing of the bottoms of excavations shall be determined by the Owner. The bottom of excavation shall be trimmed to the required level and when carried below such levels, by error, shall be brought to level by filling with lean concrete 1:4:8 mix, with aggregate of 40mm maximum nominal size at no additional cost to the Owner. The Contractor shall be responsible for assumptions and conclusions regarding the nature of materials to be excavated and the difficulty of making and maintaining the required excavations and performing the work required as shown on the drawing and in accordance with these specifications. The Contractor shall be responsible for any damage to any part of the work and property caused by collapse of sides of excavations. Materials may be salvaged, if it can be done with safety for the work and structure, as approved by the Owner. However, no extra claim shall be entertained for materials not salvaged or any other damage to Contractor's property as a result of the collapse. He shall not be entitled

to any claim for redoing the excavation as a result of the same. Excavations for foundations specified shall be carried out at least 75mm or as specified in relevant drawings below the bottom of structural concrete and then be brought to the required level by placing lean concrete of 1:4:8 mix or as specified in drawings with aggregate of 40mm maximum nominal size. When excavation requires coffer dams, sheet piling, bracing, sheeting, shoring, draining, dewatering etc. the Contractor shall have to provide the same as required and the cost there of shall be included in the unit rate quoted for the item of excavation and contractor shall submit necessary drawings showing arrangement and details of proposed installation and shall not proceed until he has received approval from the Owner. The Contractor shall have to constantly pump out the water collected in pits due to rain water, springs, seepage etc. and maintain dry working conditions at no extra cost to the Owner

For the purpose of excavation in earthwork, all types of soil including kankar, morum, shingle and boulders up to 150mm size are included andno separate payment shall be made for different type of soils encountered.

26.23 BACK FILLING

1. When the work is to be interrupted, the concrete shall be rebated at the joint to such shape and size as may be required by the Owner or as shown on the drawings. All vertical construction joints shall be made with stone boards, which are rigidly fixed and slotted to allow for the passage of the reinforcing steel. If desired by the Owner, keys and/or dowel bars shall be provided at the construction joints. Construction joints shall be provided in positions as shown or described on the drawing. Where it is not described, the joints shall be in accordance with the following :
   i)In a column, the joint shall be formed about 75mm below the lowest soffit of the beams framing into it.
   ii)Concrete in tie beam shall be placed throughout without a joint, but if the provision or a joint is unavoidable, the joint shall be vertical and at the middle of the span.
   iii)In forming a joint, concrete shall not be allowed to slope away to thin edge. The locations of construction joints shall be planned by the Contractor well in advance of pouring and have to be approved by the Owner
2. Before the fresh concrete is placed, the cement skin of the partially hardened concrete shall be thoroughly removed and surface made rough by hacking, sand blasting, water jetting, air jetting or any other method as directed by the Owner. The rough surface shall be thoroughly wetted for about two hours and shall be dried and coated with 1:1 freshly mixed cement sand slurry immediately before placing the new concrete. The new concrete shall be worked against the prepared surface before the slurry sets. Special care shall be taken to see that the first layer of concrete placed after a construction joint is thoroughly rammed against the existing layer. Old joints during pour shall be treated with 1:1 freshly made cement sand slurry only after removing all loose materials.

26.24 **CURING AND PROTECTION OF CONCRETE**

Newly placed concrete shall be protected by approved means from rain, sun & wind. Concrete placed below ground level shall be protected from falling earth during and after placing. Concrete placed in ground containing deleterious substances shall be kept free from contact with such ground or with water leaking from such ground during placing of concrete and for a period of three days or as otherwise instructed by the Owner after placing of concrete. The ground water around newly poured concrete shall be kept to an approved level by pumping or other approved means of drainage. Adequate steps shall be taken to prevent floatation or flooding. Steps, as approved by the Owner, shall also be taken to protect -immature concrete from damage by debris, excessive loading, vibration etc. which may impair the strength or durability of the concrete. All fresh concrete shall be covered with a layer of Hessian or similar absorbent material and kept constantly wet for a period of seven days or more from the date of placing of concrete as per directions of the Owner. Curing can also be made by ponding. Concrete shall be cured by

flooding with water of minimum 25mm depth for the period mentioned above. Step shall also be taken to protect immature concrete from damage debris by excessive loading, vibrations, abrasions, deleterious ground water, mixing with earth or foreign materials, floatation etc. that may impair the strength and durability of the concrete. Approved curing compound can be used with the permission of the Owner. Such compound shall be applied to all exposed surfaces of the concrete as soon as possible after the concrete has set.

ADJACENT STRUCTURES

When working near existing structures care shall be taken to avoid any damage to such structures.

26.25 **INSTALLATION**

During erection, the Contractor shall provide necessary temporary bracing or supports to ensure proper installation of the materials. All materials shall be erected in the true locations as shown in the drawings, plumb and level. Extreme care shall be taken to ensure that the threads of holding down bolts and comparable items are protected from damage. Groups of holding down bolts shall be set in such a manner that the tolerance of whole group is not more than 3mm from its true position in plan at the top of the bolt and not more than 3mm from the required level. The top ends of all bolt shanks shall be in one plane to the tolerance stated above. Holding down bolt assemblies shall be set vertically to a tolerance of not more than 1:500.

26.26

Erection of Steel Embedded Parts

This covers the technical requirements for the supply and fabrication and/or erection of all embedded steel parts by the Contractor. The extent and type of embedded steel parts to be erected shall be as per detailed drawings.

1. The supply of embedded steel parts like ladders, steel pieces set in concrete inserts, dowel bars required for construction joints etc. are in the scope of the Contractor.

2. Embedded steel parts shall include items such as foundation anchor bolts, stubs, ladders, steel pieces set in concrete inserts, dowel bars for concrete work etc. shown on the drawing or as required by the Owner. Material shall also include setting in forms for connecting in place and grouting as required. The grouting operations, if required, shall be performed as per the direction of Owner.

3. The Contractor shall erect all embedded steel parts in accordance with the drawings and this specification including setting materials in concrete or grouting pieces in place, furnishing all labour, materials, scaffolding, tools and services necessary for and incidental to the work to its transporting, unloading, storing, handling and erection. Contractor shall furnish welding rods and arrange for field welding as required in accordance with IS: 816.

4. Exposed surface of embedded material is to be painted with one coat of approved anticorrosive and/or bituminous paint without any extra cost to the Owner. The threads of holding down bolts shall be greased and protected with water proof tape.

26.27 **GALVANIZING, WELDING AND PAINTING**

Bolts and other fasteners shall be galvanized in accordance with IS: 5358. Galvanizing members of structures shall conform to IS: 4759 and spring washers shall be galvanized in accordance IS; 1573 he recommendation given in IS: 2629 and IS: 6159 shall be complied with in respect of surface preparations, safety and applications of coating.Galvanising of the various members of the structures shall be done only after all works of sawing, shearing, drilling, filing, bending and matching are completed. Galvanising shall be done by the hot dip process as recommended in IS: 2629 or other such authoritative international standards and shall produce a smooth, clean and uniform coating of not less than 610 gm per square meter. The preparation for galvanising and the galvanising process itself must not affect adversely the mechanical properties of the treated materials.

All assembly bolts shall be thoroughly hot dip galvanized after threading. Threads shall be of a depth sufficient to allow for the galvanized coating, which must not be excessive at the root of the

	threads, so that the nut shall turn easily on the completed bolts without excessive looseness. The nut threads shall not be galvanized, but oiled only. The nuts and bolts shall be properly welded to the tower. The outside surface shall be galvanised. Sample of galvanised materials shall be supplied to the galvanising test set out in IS 729 or other such authoritative international standards.
26.28	**FIELD ERECTION** Erection of the ERS tower and super structure is in the scope of this work. Erection work shall be done strictly according to the provisions of IS: 802 After completion of the works, final checking shall be done by the contractor to ensure that fabrication/replacement/repairing of damaged tower legs 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. All the tower members are correctly used strictly according to AEGCL's requirements and are free of any defect or damage whatsoever. 2. All the bolts are fully tightened and they are properly punched. The contractor shall submit a report to the above effect. After final checking, any defect found shall be rectified by the contractor.
26.29	**EARTHING** To keep provision in the structures for earthing, holes shall be drilled on two diagonally opposite legs of the towers/columns/mounting structures. The holes shall be suitable for bolting GI strips of size mentioned elsewhere in this specification (Vol II) and shall be such that the lower hole is about 350 mm above the ground level, clear of the concrete muffing, for connecting the earthing strip.
26.30	**Stringing Of Conductor:** The stringing of the conductors 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. The contractor shall be entirely responsible for any damage to the towers or the conductors during stringing. **a. Pulling Operation:** 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.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.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.

	b. **Sagging In Operation:** 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.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. c. **Jointing:** 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 aluminum sleeve shall have all corners rounded, burrs and sharp edges removed and smoothened.
26.31	**Final checking** After completion of the works, final checking of the tower and 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. All the tower members are correctly used strictly according to final approved drawings are free of any defect or damage whatsoever. 2. All the bolts are fully tightened and they are properly punched. 3. 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. (b) After satisfactory tests on the line and on approval by the Employer the line shall be energized at full operating voltage before handing over
27.0	Wherever there is any variation in between the conditions of the AEGCL's General Conditions of Supply and Erection 2009 and the bid terms & conditions, this bid conditions will supersede the conditions of the AEGCL's General Conditions of Supply and Erection 2009.
28.0	**Liquidated Damage:**
	The date of completion of work shall be deemed to be the essence of the contract and shall not be completed no later than the date specified in the contract. In case of failure to complete the work within the stipulated period AEGCL shall be entitled to:
28.1	Recover an amount at the rate of 1% (One percent) of the Contract Price per week or part thereof of delay, subject to maximum of 10% (Ten percent) of the contract price as liquidated damage to AEGCL. However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the works or from any other obligations and liabilities of the Contractor under the Contract.
28.2	To complete the balance work giving notice to the Contractor/Firm and to recover any extra expenditure incurred thereby for having to complete the work at a higher price at

	the risk and responsibility of the Contractor/Firm.
28.3	Contractual failure:- Refer clause No.27.1 of AEGCL's General Conditions of supply and erection 2009.
29.0	**Insurance:**
	The bidder shall arrange for any pay/cost of personnel accident insurance, medical treatment etc. in respect of their employees assigned to the works for all time and shall govern by Law of land.
30.0	**Warranty:**
30.1	The Supplier/Manufacturer warrants that all the 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.
30.2	The Supplier/Manufacturer further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
31.0	**Safety:**
31.1	Each and every safety measures for MAN and MACHINE will be the sole responsibility of the Contractor without any prejudice. Compensation claim if any will also be the responsibility of the contractor without any prejudice. As the contract is Turnkey in nature hence AEGCL will not bear any responsibility towards such claim.
32.0	**Pollution:**
	Each and every measure should be taken to adhere to the standard norms to avert any occasion of Air Pollution, Water Pollution, Soil Pollution and Sound Pollution. In case of any deviation leading to any legal action the Contractor will be solely responsible without any prejudice.
33.0	**Payment terms:**
33.1	No advance/Mobilization advance shall be made in this contract.
33.2	Payment will be made by DGM, Tezpur (T&T) Circle, AEGCL, Kunderbari ,Depota. 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
34	**Performance security deposit:**
34.1	The successful bidder shall have to deposit through a **Bank Guarantee/Demand Draft** from a Nationalized or scheduled Bank of RBI in AEGCL's standard proforma on non-judicial stamp of appropriate value for an amount equivalent to 10% (ten percent) of the total value of the order as performance security, immediately within 10 (ten) days from the issue of the letter of intent/detailed orders (as the case may be), duly pledged in favour of **AEGCL, BijuleeBhawan, Paltanbazar, Guwahati-1,** and such security deposit shall be valid up to 30 days beyond the warranty period of 12 (Twelve) months. The Bank Guarantee (BG) should be submitted to the **O/O the Deputy General Manager, Tezpur**

	T&T Circle, AEGCL, Tezpur-784001 by the issuing Bank under registered post AD.
34.2	Please note that, if the selected Bidder / Firm fails to furnish the requisite performance security as stated above and signs the contract within the stipulated period, 10 percent security money will be deducted from the total Bill value.
34.3	If the bidder / firm fails or neglects to observe and perform any of his obligations under the contract, Purchaser (AEGCL) shall have the right to forfeit either in full or in part at his absolute discretion, the security deposit furnished by the Contractor/Firm.
34.4	No interest shall be payable on such deposits.
33.5	The supplier has to supply the materials to the consignee as mentioned in the bid.
35	**Retention Money:**
35.1	In addition to above performance security deposit, retention money @ 20% of the total value of the order will be retained by the Engineer/Purchaser as per Bid Clause33.The amount will be held by the Purchaser (AEGCL) till the work under the contract is completed and the completion certificate is issued.
35.2	If the Firm/Bidder fails or neglects to observe and perform any of his obligations under the contract, the Purchaser (AEGCL) shall have the right to forfeit either in full or in part at his absolute discretion, the security deposit furnished by the supplier/contractor.
35.3	No interest shall be payable on such deposit.
36.0	**Force Majeure Condition:**
	Force Majeure condition shall be considered as any circumstances beyond reasonable control of the party claiming relief, including but not limited to strikes, lockout, civil commotion, riot insurrection, hostilities, mobilization, war, fire, flood, earthquake, malicious damage or accidents could entitle contractor to extension time. Any such delay should intimated within 10 (ten) days from the beginning of such delay to consider/approved, any claim without prior information may not be considered under force Majeure.
37.0	**Settlement of Dispute and Arbitration:**
	Any dispute arising out of the contract will be first settled bilaterally between AEGCL and Contractor. In case, dispute cannot be settled bilaterally, it will be referred to arbitration to be by an arbitrator appointed by AEGCL. The contractor shall not stop the work during settlement of any dispute. All disputes shall be subjected to the jurisdiction of District Court of Kamrup District.
38.0	**Right to Reject:**
	AEGCL reserves the right to reject any or all the bids without assigning any reason thereof and the AEGCL further reserves the right to split up the work order in favour of more than one Contractor. The AEGCL also reserves the right to reject the lowest or any other price without assigning any reason.
The clauses which are not appearing in this document (bid) will be as per The General Condition of Supply and Erection 2009 of AEGCL. The General Condition of Supply and Erection 2009 of AEGCL is available in the AEGCL's website www.aegcl.co.in under Acts, Rules and Policies Tab.	

Letter of Technical Bid

[Bidder's Letterhead]

Date: _____

Tender No.: _____

Invitation for Bid No.:_____

To:_____

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Document, including Addenda No.: _____.

(b) We offer to supply in conformity with the Bidding Document and in accordance with the completion/delivery schedule specified in the bid document, the following Goods and Related Services: _____

(c) Our Bid shall be valid for a period of _____ days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of _____ percent of the Contract Price for the due performance of the Contract;

(e) We are not participating, as Bidders, in more than one Bid in this bidding process;

(f) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed.

(g) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by AEGCL,APDCL or APGCL under the Employer's country laws or official regulations

(h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name _____

In the capacity of _____

Signed _____

Duly authorized to sign the Bid for and on behalf of _____

Date _____

Price Proposal Submission Sheet

Date: _____

Tender No.: _____

Invitation for Bid No.:_____

To:_____

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Document, including Addenda No.:_____

(b) We offer to supply in conformity with the Bidding Document and in accordance with the completion/delivery schedule specified Schedule of Supply & Erection, the following Goods and Related Services: _____

(c) The total price of our Bid, excluding any discounts offered in item (d) below is: _____

(d) The discounts offered and the methodology for their application are: _____

(e) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract:

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

Name _____

In the capacity of _____

Signed _____

Duly authorized to sign the Bid for and on behalf of _____

Date _____

Bidding Forms:

Name of work:

Bid Identification No:

General

(i) Name of the Firm/Contractor:
(ii) Full Address:
(iii) Constitution of the Firm:
a) Whether Partnership or any type:

A) Experience as Clause 9 in the bid

(i) No of years the Firm/Contractor has been in operation under its present name.
(ii) Testimonials from Clients Company on various works executed.
(Details of works executed/under execution in the last three years including other department)

Sl. No.	Name of work & W/O No.	Worked Done Under	Value of Work	Present status/completed on

B) Financial Position

(i) Financial Turnover during the last recent year (copies of Audited Annual report, Accounts or a statement duly certified by a chartered accountant and Income Tax return.

Year	Turn over

Any other details that the tenderer may like to furnish to substantiate their financial and technical ability to undertake this work and complete the same within stipulated period of completion.

Name of the Bidder:-

Signature of the Bidder/Firm …….

Full Name ……..

Postal Address ……..

Phone/Mobile No. ……

Form of Bid Security (Bank Guarantee)

(To be stamped in accordance with Stamp Act)

(The non-Judicial Stamp Paper should be in the name of issuing Bank)

Date: _____

Bid Reference No.: _____

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

KNOW ALL MEN by these presents that We _____ *[Name of Bank]* of _____ *[Name of Place]* having our registered office at _____ (hereinafter called "the Bank) are bound unto _____ *[Name of Purchaser]* (hereinafter called "the *Purchaser* ") in the sum of _____1 for which payment well and truly to be made to the said Purchaser 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 its Bid during the period of bid validity specified by the Bidder in the Bid Submission Sheet, except as provided in the relevant Bid ***Clause***;

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 Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser 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 ____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 Purchaser, 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

ANNEXURE: I

BOQ

(To be submitted in the Part-II as 'Price bid' in sealed envelope)

A. Repairing of damage tower footing(4 nos.) and changing of tower leg upto 2nd section including all cross member with all necessary civil work, painting of the tower , temporary bolder protection work at loc. No. 121(Tension) of 132kV Rowta-Rangia line					
Sl no.	**Item description**	**Unit**	**Qty**	**Rate**	**Amount**
1	Dismantling of existing tower and transport the same to the store (B+3 type tower(M.S.) for changing of 1st and 2nd section tower legs)	**MT**	**6**		
2	Repairing/replacement of damage leg including all necessary civil work at loc no. 121 of 132kV S/C Rowta-Rangia line. Total nos. of leg=4(For leg repairing)	**Per leg**	**4**		
3	PCC & RCC work upto 1.2 mtr from ground level (for mufflering)	**Per leg**	**4**		
4	Painting of tower B type	**Per Job**	**1**		
5	Painting of +3Mtr extension	**Per Job**	**1**		
6	Earthing of tower loc. 121 including supply of all fittings	**Per Tower**	**1**		
7	Erection of superstructure	**MT**	**6**		
8	Supply of superstructure(including leg and crossmember)	**Kg**	**470**		
9	Loading and unloading of materials	**MT**	**0.46**		
10	**Transportation of materials from Depota to work site**				
10.1	For tata magic or equivalent (upto 700kg) distance from Depota to work site loc 121= 110km	**Per MT/ Per Km**	**110**		
11	Supply of nuts and bolts	**MT**	**0.3**		
12	Welding all nuts and bolts of the tower	**Per tower**	**1**		
	Sub Total(A)				
	Transportation, erection and dismantling of 1 nos. of ERS tower at loc no. 121 of 132kV Rowta -Rangia line				
B.	**Transportation of ERS tower(To &Fro)**				

1	ERS tower material sorting, loading and carrying from Kahilipara GSS to work site(loc no. 121) including loading at Kahilipara GSS. Weight per ERS=5.2 MT	**1**	**1st 30km**		
		Per Ton per km	**105km**		
2	ERS tower material sorting, loading and carrying from Work camp (loc no.121) and unloading at Kahilipara GSS. Weight per ERS=5.2 MT	**1**	**1st 30km**		
		Per Ton per km	**105km**		
Total(in Rs)(B)=					
C.	**Erection for 1 no. ERS**				
3	Carrying of all ERS materials from road side to work site by head loading	**LS**	**1**		
4	Preparation and leveling of site,	**Per job**	**1**		
5	Anchoring (including excavation) of five nos. of Anchor	**Per Job**	**1**		
6	Erection of ERS tower	**Each**	**1**		
7	Dismantling of conductor(3 nos.) from existing line of location	**Each**	**1**		
8	Stringing of conductor(3 nos) in 1no. ERS tower including all necessary work	**Each**	**1**		
	Total(in Rs)(C)=				
D	**Dismantling for 1 no. ERS**				
9	ERS tower materials sorting, loading and carrying from work site to head camp by head loading	**Job**	**1**		
10	Dismantling of power conductor(3 nos) from ERS tower	**Per Job**	**1**		
11	Dismantling of ERS tower including De-Anchoring	**Each**	**1**		
12	Restringing of conductor to existing tower after necessary repairing(3 nos)	**Per Job**	**1**		

Estimate-E

Name: Protection of tower no. 121 (B+3) from soil erosion with stone pitching at 132kV S/C Rowta-Tangla near Bukrajhar are, Udalguri district, AEGCL

Sl no.	Description	**Qty**	**Unit**	**Rate**	**Amount**
1	Filling available excavated earth in layers at the side of the embankments upto a width of 5 mtrs on all sides upto a depth of 2.5mtrs				

	Earth filling for tower side considering slope for stone pitching at 1.5H:1V Length | | **Avg width** | | Depth | | 11.00 | x | 1.25 | x | 2.00 | = | | Area | | Length | | | | | | Total | =	**27.50** **27.50**	**cum**		
2	Stone for pitching 15cmx22.5cm of the embankments of th side of tower having an average embankment depth of 2.5 mtrs Slope 1.5H:1V | Length | | Width | | Thickness of stone layer | At bottom | 11 | x | 2 | | 1 | = At middle | 11 | X | 1.5 | | 1 | = At top | 11 | X | 1 | | 0.5 | = | | | | | Total | =	**22** **16.50** **5.50** **44.00**	**cum**		
3	Galvanised wire mesh of average width of aperture 1.4mm and nominal dia of wire 0.63mm to anchor the stone pitching at the embankments For making rectangular box | No. of sides | | Length | | Width | | | | | | | for bottom | 2 | x | 11 | x | 1 | = | 2 | X | 2 | X | 1 | = for middle step | 2 | x | 11 | x | 1 | | 2 | X | 1.5 | X | 1 | for top | 2 | x | 11 | x | 0.5 | = | 2 | X | 0.5 | X | 0.5 | = Total=	**22.00** **4.00** **22.00** **3.00** **11.00** **0.50** **62.50**	**sqm**		
4	Engagement of unskilled labour	**20**	**man days**		
Total					
9% SGST					
9% CGST					
Grand total					

Estimate-F (Compensation during Erection of ERS					
Sl no	Description	Un it	Qty	Rate per unit	Amount
1	Jati Bamboo	nos	40		
2	Banana tree (Malbhog)		20		
3	Banana tree (Jahaji)		30		
Total=					

Total estimate (A+B+C+D+E+F)		
Sl no.	**Item**	**Amount**
1	Total estimated amount from Estimate A	
2	Total estimated amount from Estimate B	
3	Total estimated amount from Estimate C	
4	Total estimated amount from Estimate D	
5	Total estimated amount from Estimate E	
6	Total estimated amount from Estimate F	
Grand total		

ANNEXURE: II

Following information is to be furnished in the 'Technical and Commercial bid' as first page.

(Please tick mark where necessary.)

1)	Earnest money (EMD)	:Submitted/Not submitted
	a) Amount of EMD	:Rs.
	b) Submitted in the form of	
	Bank Guarantee /Demand Draft	: Yes/No.
2)	Validity of the offer	: ……. days from the date of opening of 'Technical & Commercial Bid' & 'Price bid'.
3)	Nature of price offered	
	i) 'FIRM' Price	: Yes/No
4)	Terms of payment (Whether agreeable to accept payment as specified in clause- 33)	: Yes/No
5)	Date of completion of supply (Please specify the date of completion of supply/Erection as per specification)	: Yes/No
6)	'Security and performance guarantee' (Whether agreeable to accept as specified in Clause	: Yes/No

	no-34&35)	
7)	List of orders executed for similar works furnished	: Yes/No
8)	Performance certificate from the Govt/Govt undertaking furnished	: Yes/No
9)	Deviation from the specifications	
	a) Technical	: Yes/No
	b) Commercial	: Yes/No
10)	Information in respect of technical capability is furnished	: Yes/No
11)	Information in respect of Financial capability certificate from the Banker is furnished	: Yes/No
13)	PAN card as per Cl. No. 15.3.2	: Yes/No
14)	GST registration no. as per Cl. No. 15.3.4	: Yes/No
15)	Registered Power of Attorney as per Cl.no. 15.3.6 enclosed.	: Yes/No

Name of the Bidder:-

Signature of the Bidder/Firm …….

Full Name ……

Postal Address ……

Phone/Mobile No. ……