

ASSAM ELECTRICITY GRID CORPORATION LIMITED

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SINGLE STAGE TWO ENVELOPE

Bidding Document

For

**Supply, Erection, Testing and Commissioning of 33kV CT (for 33kV Amoni feeder)
under deposit scheme at 220/132/33kV Samaguri GSS, AEGCL**

DEPUTY GENERAL MANAGER

TEZPUR T&T CIRCLE

AEGCL, TEZPUR-784154

Tender Cost: ₹1000.00

EMD: ₹14,000.00

BID NO: AEGCL/DGM/TTC/TEZ/T-20/2026/321

Date: 11.05.2026

For & on behalf of the **Managing Director, AEGCL, the Deputy General Manager, Tezpur T&T Circle, AEGCL, Kunderbari, Depota**, 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	Estimated Cost In ₹	Time of completion In Days	Consignee address
1	Supply, Erection, Testing and Commissioning of 33kV CT (for 33kV Amoni feeder) under deposit scheme at 220/132/33kV Samaguri GSS, AEGCL	₹6,93,473.00	90 days from the date of issue of work order	O/o the AGM, 220/132/33kV Samaguri Grid Substation, AEGCL

1.0 Cost of Bidding Document:

Bidder has to pay Non-Refundable tender document cost of ₹ 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:

Tender papers can be purchased on application in plain paper from the **Deputy General Manager, Tezpur T&T Circle, AEGCL, Tezpur.**

2.1 Key Dates:-

- Bid Document available date: 10:00hrs of 11-05-2026
- Bid Submission Start Time & date: 11:00hrs of 11-05-2026
- Bid Submission end time & date: 12:00hrs of 02-06-2026
- Techno-Commercial Bid Opening time: 13:00hrs of 02-06-2026

3.0 Validity of Bids and Bids Prices:

- 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.
- 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.
- 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 **₹14,000.00** only in the form of Bank Guarantee/Demand Draft from any Nationalized Bank payable at Guwahati in favour of **AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati-01. The name mentioned in the Bank Guarantee/Demand Draft should be in the name of the party/firm/proprietor participate in the tender.**

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 within 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 initialed 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 initialed 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 last 3 (three) years to demonstrate the current soundness of the Bidders financial position and its prospective long term profitability. As a minimum, an Applicant's net worth calculated as the difference between total assets and total liabilities should be positive.

8.2 **Average Annual Turnover:** Minimum average annual turnover **₹2,08,500.00** calculated as total certified payments received for contracts in progress or completed, within the last 3 (Three) Years.

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, **₹2,08,500.00 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 ₹ 2,77,500.00.
- (b) Two (2) similar completed works costing not less than ₹3,47,000.00.
- (c) One (1) similar completed works costing not less than ₹5,55,000.00.

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 **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.

10.6 The following methodology will be practiced for identification and treatment of 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 analyses 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 Annual turnover for last three years
- 15.3.5 GST registration No.
- 15.3.6 Registered Power of attorney, if any.
- 15.3.7 I T Return for last three Years
- 15.3.8 Audited Balance Sheet , Profit and loss account t for last three years
- 15.3.9 Updated labour license
- 15.3.10 Updated electrical license upto/above 33kV.
- 15.3.11 EPF
- 15.3.12 **Name, qualification & technical supervisors & staff under the employment of the tenders in the form of affidavit**
- 15.3.13 **Tools and Plants**

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 **“Supply, Erection, Testing and Commissioning of 33kV CT (for 33kV Amoni feeder) under deposit scheme at 220/132/33kV Samaguri GSS, AEGCL” as listed in table 1.0 below.** The Contractor’s proposal shall be based on the use of materials complying fully with the requirements specified herein.

Table: 1.0

Sl. No.	Particulars	Unit	Qty.
1	Supply of Equipment		
1.1	Supply of feeder Current transformers (1-Phase, 0.2 class live tank type) including all accessories and terminal connectors, marshalling box as required.(so as to retrofit in the existing foundation)		
	(i) 36 kV, 600-300/1-1-1 A	Nos	3
	(ii) 33kV CT Clamp (suitable for panther)	Nos	6
1.2	Mandatory spares		
	(iii) 36 kV, 600-300/1-1-1 A	Nos	1
	(iv) 33kV CT Clamp (suitable for panther)	Nos	2

18.0

Scope:

The major scopes of work are as follows: -

- a) Supply of feeder **Current transformers** (1-Phase, 0.2 class live tank type) including all accessories and terminal connectors, marshalling box as required.(so as to retrofit in the existing foundation), 33kV CT clamp as mentioned in Table 1.0.
- b) Transportation and movement of supplied materials up to the site and arrangements of any permits required for transportation of supplied materials. However, AEGCL shall assist as far as practicable in the process.
- c) Transit insurance shall be in the scope of the contractor.
- d) Dismantling of existing CT (without structural) -33kV level (including all necessary works)
- e) Fabrication of equipment structure for CT
- f) Erection, Testing and commissioning including laying of control cables and equipment earthing as required to complete the job

The works to be executed shall be as per the items mentioned in the BOQ and as per the directions of the site engineer.

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 Drawing and Documents

21.1 All drawings shall be provided by AEGCL during execution, wherever applicable.

22.0 Employer Supervision

22.1 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.

23.0 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.

24.0 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.

25.0 **TECHNICAL SPECIFICATION FOR 33KV CURRENT TRANSFORMERS (AIS)**

25.1.0 **SCOPE OF CONTRACT**

This Section of the Specification covers general requirements for design, engineering, manufacture, assembly and testing at manufacturer's works and supply of 33 kV outdoor Current.

25.1.1 **STANDARDS**

The equipment 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.

25.1.2 In case of any conflict between the Standards and this specification, this specification shall govern.

25.1.3 The current transformer shall comply also with the latest issue of the following Indian standard.

(i)	IS: 2705(Part-I)	Current transformers: General requirement.
(ii)	IS: 2705(Part-II)	Current transformers: Measuring Current transformers
(iii)	IS: 2705(Part-III)	Current transformers: Protective Current transformers
(iv)	IS: 2705(Part-IV)	Current transformers: Protective Current transformers for special purpose application.

25.1.4 **GENERAL REQUIREMENTS**

25.1.5 The cores of the instrument transformers shall be of high grade, non-aging CRC steel of low hysteresis loss and high permeability.

25.1.6 Current transformers shall be of Live Tank design.

- 25.1.7 The instrument transformers shall be truly hermetically sealed to completely prevent the oil inside the tank coming into contact with the outside temperature. To take care of oil volume variation the tenderer are requested to quote the current transformers with stainless steel diaphragm (bellow).
- 25.1.8 The instrument transformers shall be completely filled with oil.
- 25.1.9 A complete leak proof secondary terminal arrangement shall be provided with each instrument transformers, secondary terminal shall be brought into weather, dust and vermin proof terminal box. Secondary terminal boxes shall be provided with facilities for easy earthing, shorting, insulating and testing of secondary circuits. The terminal boxes shall be suitable for connection of control cable gland. IP rating of terminal box shall be IP 55. Spare terminals shall be provided. TBs shall be of Elmex/Connect well.
- 25.1.10 All instrument transformers shall be of single-phase unit.
- 25.1.11 The instrument transformers shall be so designed to withstand the effects of temperature, wind load, short circuit conditions and other adverse conditions.
- 25.1.12 All similar parts, particularly removable ones, shall be interchangeable with one another.
- 25.1.13 All cable ferrules, lugs, tags, etc. required for identification and cabling shall be supplied complete for speedy erection and commissioning as per approved schematics.
- 25.1.14 The instrument transformers shall be designed to ensure that condensation of moisture is controlled by proper selection of organic insulating materials having low moisture absorbing characteristics.
- 25.1.15 All steel work shall be degreased, pickled and phosphated and then applied with two coats of Zinc Chromate primer and two coats of finishing synthetic enamel paint.
- 25.2.0 **INSULATING OIL**
- The quantity of insulating oil for instrument transformers and complete specification of oil shall be stated in the tender. The insulating oil shall conform to the requirement of latest edition of IS: 335
- 25.3.0 **COMMON MARSHALLING BOXES (shall be supplied by CT manufacturer)**
- 25.3.1 The outdoor type common marshalling boxes shall conform to the latest edition of IS 5039 and other general requirements specified hereunder.
- 25.3.2 The common marshalling boxes shall be suitable for mounting on the steel mounting structures of the instrument transformers.
- 25.3.3 One common marshalling box shall be supplied with each set of instrument transformers. The marshalling box shall be made of sheet steel and weather-proof. The thickness of sheet steel used shall be not less than 3.0 mm. It is intended to bring all the secondary terminals to the common marshalling. The marshalling box shall be of hot dipped galvanized steel.
- 25.3.4 The enclosures of the common marshalling boxes shall provide a degree of protection of not less than IP 55 (As per IS 2147).
- 25.3.5 The common marshalling boxes shall be provided with double hinged front doors with pad locking arrangement. All doors and removable covers and plates shall be sealed all around with neoprene gaskets or similar arrangement.
- 25.3.6 Each marshalling box shall be fitted with terminal blocks made out of moulded non-inflammable plastic materials and having adequate number of terminals with binding screws washers etc. Secondary

terminals of the instrument transformers shall be connected to the respective common marshalling boxes. All out going terminals of each instrument transformer shall terminate on the terminal blocks of the common marshalling boxes. The terminal blocks shall be arranged to provide maximum accessibility to all conductor terminals.

25.3.7 Each terminal shall be suitably marked with identification numbers. Not more than two wires shall be connected to any one terminal. At least 20 % spare terminals shall be provided over and above the required number. TBs shall be of Elmex/Connect well.

25.3.8 All terminal strips shall be of isolating type terminals and they will be of minimum 10 A continuous current rating.

25.3.9 All cable entries shall be from bottom. Suitable removable gland plate shall be provided on the box for this purpose. Necessary number of cable glands shall be supplied fitted on to this gland plate. Cable glands shall be screw on type and made of brass.

25.3.10 Each common marshalling box shall be provided with two numbers of earthing terminals of galvanized bolt and nut type.

25.3.11 All steel, inside and outside work shall be degreased, pickled and phosphate and then applied with two coats of Zinc Chromate primer and two coats of finishing synthetic enamel paint. The colour of finishing paint shall be as follows: -

- | | | |
|-----|----------|-------------------------------------|
| i) | Inside: | Glossy White |
| ii) | Outside: | Light Grey (Shade No. 697 of IS: 5) |

25.4.0 BUSHINGS AND INSULATORS

25.4.1 Bushings and Insulators shall be of Porcelain, Solid core type. Porcelain used for the manufacture of bushings and insulators shall be homogeneous, free from defects, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture.

25.4.2 Glazing of the porcelain shall be of uniform brown colour, free from blisters, burns and other similar defects. Bushings shall be designed to have sufficient mechanical strength and rigidity for the conditions under which they will be used. All bushings of identical ratings shall be interchangeable.

25.4.3 Puncture strength of bushings shall be greater than the dry flashover value. When operating at normal voltage, there shall be no electric discharge between the conductors and bushing which would cause corrosion or injury to conductors, insulators or supports by the formation of substances produced by chemical action. No radio interference shall be caused by the bushings when operating at the normal rated voltage.

25.4.5 The design of bushing shall be such that the complete bushing is a self-contained unit and no audible discharge shall be detected at a voltage up to a working voltage (Phase Voltage) plus 10%. The minimum creepage distance for severely polluted atmosphere shall be 31 mm/KV.

25.4.6 Sharp contours in conducting parts should be avoided for breakdown of insulation. **The insulators shall be capable to withstand the seismic acceleration of 0.5 g in horizontal direction and 0.6g in vertical direction.**

25.4.7 Bushings shall satisfactorily withstand the insulation level specified in data sheet.

25.4.8 Rain shed/drain cover/dome shall be present in CT.

25.4.9 Below level indicator shall be present in CT.

25.4.10 **Nitrite butyl rubber/Neoprene gaskets shall be used**

25.5.0 TESTS

25.5.1 Routine/Acceptance Tests (all units)

All routine tests shall be carried out in accordance with relevant Standards. All routine/acceptance tests shall be witnessed by the Employer/his authorized representative.

- 25.5.2 **Type Tests:** The bidder shall furnish type test certificates and results for the all tests as per relevant Standards along with the bid for current and potential transformers of identical design.
Type test certificates so furnished shall not be older than 5 (five) years as on date of Bid opening.
- 25.5.3 **QAP:** QAP shall be submitted.
- 25.6.0 **NAME PLATES**
- All equipment shall have non-corrosive name plates fix at a suitable position indelibly mark with full particular there on in accordance with the standard adapted. Thickness (1mm), purchase order, project name, serial no etc. shall be present in the Name plate.
- 25.6.1 **MOUNTING STRUCTURES**
- 25.6.2 All the equipment covered under this specification shall be suitable for mounting on steel structures. Supply of mounting structures is also in the scope of this tender.
- 25.6.3 Each equipment shall be furnished complete with base plates, clamps, and washers etc. and other hardware ready for mounting on steel structures.
- 25.7.0 **SAFETY EARTHING**
- The non-current carrying metallic parts and equipment shall be connected to station earthing grid. For these two terminals suitable for 40mm X 10mm GI strip shall be provided on each equipment.
- 25.8.0 **TERMINAL CONNECTORS(Shall be under manufacturer scope)**
- The equipment shall be supplied with required number of terminal connectors of approved type suitable for ACSR. The type of terminal connector, size of connector, material, and type of installation shall be approved by the Employer, as per installation requirement while approving the equipment drawings. No part of a clamp shall be less than 12mm. thick.
- 25.9.0 **PRE-COMMISSIONING TESTS**
- Contractor shall carry out following tests as pre-commissioning tests. Contractor shall also perform any additional test based on specialties of the items as per the field instructions of the equipment Supplier or Employer without any extra cost to the Employer. The Contractor shall arrange all instruments required for conducting these tests along with calibration certificates and shall furnish the list of instruments to the Employer for approval.
- (a) **Current Transformers**
- (i) Insulation Resistance Test for primary and secondary.
 - (ii) Polarity test.
 - (iii) Ratio identification test - checking of all ratios on all cores by primary injection of current.
 - (iv) Dielectric test of oil (wherever applicable).
 - (v) Magnetizing characteristics test.
 - (vi) Tan delta and capacitance measurement
 - (vii) Secondary winding resistance measurement
 - (viii) Contact resistance measurement (wherever possible/accessible).
- 25.10 **TECHNICAL DATA SHEET FOR CURRENT TRANSFORMER**
- For 245/145/36 kV CTs the instrument security factor at all ratios shall be less than five (5) for metering core. If any auxiliary CTs/reactor are used in the current transformers then all parameters specified shall have to be met treating auxiliary CTs as an integral part of the current transformer. The auxiliary CTs/reactor shall preferably be inbuilt construction of the CTs. In case these are to be

mounted separately these shall be mounted in the central marshalling box suitably wired upto the terminal blocks.

25.11

TYPE AND RATING:

All instrument transformer shall be outdoor type, single phase, oil immersed, self-cooled suitable for mounting on steel structure. The instrument transformer shall have the following ratings and particulars.

SL No.	A. Item	Ratings and Particulars
I	II	III
A	Nominal system voltage	33 kV
B	Highest system voltage, kV	36
C	Rated frequency, HZ	50
D	System earthing	Solidly earth
E	Insulation level	
a)	Impulse withstand voltage: kVp	170
b)	One-minute p.f. Withstand voltage, kV (r.m.s.)	70
F	Short time current for 3 seconds, kA	31.5
G	Minimum creepage distance, mm	1116
H	Temperature rise	As per ISS
I	FEEDER C.T.	
	(i) No. of Cores	2
	(ii) Transformation ratio	200-400/1-1
	(iii) Rated out put	
	(a) Core-1	30 VA
	(b) Core-2	15 VA
	(c) Core-3	N.A.
	(d) Core-4	N.A.
	(e) Core-5	N.A.
	(iv) Accuracy class	
	(a) Core-1	0.2S
	(b) Core-2	5P
	(c) Core-3	N.A.
	(d) Core-4	N.A.
	(e) Core-5	N.A.
	(v) Accuracy limit factor	
	(a) Core-1	-
	(b) Core-2	20
	(c) Core-3	-
	(d) Core-4	N.A.
	(e) Core-5	N.A.

	(vi) Instrument security factor	
	(a) Core-1	<5
	(b) Core-2	-
	(c) Core-3	-
	(d) Core-4	N.A.
	(e) Core-5	N.A.
	(vii) Minimum Knee point voltage, Volts	
	(a) Core-1	-
	(b) Core-2	-
	(c) Core-3	N.A.
	(d) Core-4	N.A.
	(e) Core-5	N.A.
	(viii) Maximum secondary resistance, ohm	
	(a) Core-1	-
	(b) Core-2	-
	(c) Core-3	N.A.
	(d) Core-4	N.A.
	(e) Core-5	N.A.
	(ix) Maximum exciting current, at $V_k/4$ mA	
	(a) Core-1	-
	(b) Core-2	-
	(c) Core-3	N.A.
	(d) Core-4	N.A.
	(e) Core-5	N.A.

Note:

- (i) It is intended to use different ratios of the same CT at the same time for various protections and metering cores. The CTS should therefore be suitable for the above purpose by secondary tapings only. The ratio change by secondary taps is acceptable as long as the required CT specifications are achieved at all ratios.
- (ii) The knee point voltage specified above shall be at higher ratio/ taps.
- (iii) CT and PT sizing calculations shall be submitted. Burden values and knee point voltage, shall be decided as per the calculations during detailed engineering

26.0

TECHNICAL SPECIFICATION FOR 33kV CT CLAMP

1. Clamps shall conform to IS 2121 unless otherwise mentioned hereunder.
2. Clamps and connectors shall be made of materials listed below: -
 - (i) For connecting ACSR: Aluminium alloy casting conforming to designation A6 of IS 617.
 - (ii) For connecting GI Shield wire: Malleable iron casting.
 - (iii) Expansion Connectors: Copper lamination to grade FRTP-2 of IS 191.
3. Bolts, nuts and washers shall be made of mild steel and hot dip galvanized as per IS 2629. Small

- fittings like spring washers, nuts etc. may be electrogalvanised.
4. The quality of HDG ferrous components shall be determined by the test given in IS:2633 and shall satisfy the requirement of that standard.
 5. The rated short time current shall be one of the standard values laid down in Indian Standards for the associated circuit breakers, Switches etc.
 6. Current carrying capacity same as conductor full current rating. For two different conductors, conductor with smaller rating shall be considered.
 7. No part of a clamp shall be less than 12 mm thick for fittings suitable upto size of ACSR Panther conductor, No part of a clamp shall be less than 15 mm thick for fittings suitable for ACSR Zebra conductor and ACSR Moose conductor.
 8. All sharp edges and corners shall be blurred and rounded off.
 9. For bimetallic connectors, copper alloy liner of minimum thickness of 2 mm shall be cast integral with aluminium body.
 10. From outermost hole edge to nearest edge of any clamps and connectors the distance shall not be less than 10 mm.

Clamp conforms to the latest revision of the following IS :

- (i) IS – 5561: Electric Power Connectors
 - (ii) IS-2121 Part I &II : Conductor and earth wire accessories for overhead line.
 - (iii) IS-2633 : Method for testing weight, thickness and uniformity of coating on hot dipped galvanized articles.
 - (iv) IS-5082 : Wrought Aluminium and Aluminium Alloy section for electrical purpose.
 - (v) IS-1285 : Wrought Aluminium and Aluminium Alloy Round Tube and hollow sections.
- IS-617 : Aluminium and aluminium alloy ingots and casting for general engineer

27.0

INSPECTION:

- i) The Purchaser shall have access at all times to the works and all other places of manufacture, where the disconnectors, earth switches and associated equipment are being manufactured and the supplier shall provide all facilities for unrestricted inspection of the works raw materials manufacture of all the accessories and for conducting necessary tests as detailed herein.
- ii) The supplier shall keep the purchaser informed in advance of the time of starting of the progress of manufacture of equipment in its various stages so that arrangements could be made for inspection.
- iii) No material shall be dispatched from its point of manufacture unless the material has been satisfactorily inspected and tested.
- iv) The acceptance of any quantity of the equipment shall in no way relieve the supplier of his responsibility for meeting all the requirements of this specification and shall not prevent subsequent rejection if such equipment is later found to be defective.

28.0

QUALITY ASSURANCE PLAN:

The Bidder shall invariably furnish following information along with his offer, failing which his offer shall be liable for rejection.

- (i) Names of sub suppliers for raw materials, list of standards according to which the raw materials are tested, list of tests normally carried out on raw materials in presence of Supplier's representative, copies of test certificate
- (ii) Information and copies of test certificates as in (i) and (ii) above in respect of bought out accessories.

- (iii) List of manufacturing facilities available
- (iv) Level of automation achieved and lists of areas where manual processing still exists.
- (v) List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections.
- (vi) List of testing equipments with calibration certificates from Govt. approved test house available with supplier for final testing equipment and test plant limitation if any, vis-à-vis the type, special acceptance and routine test specified in the relevant standards. These limitations shall be very clearly brought out in the specified test requirements.

The supplier shall within 30 days of placement of order, submit following information to the purchaser.

- i) List of raw material as well as bought out accessories and the names of sub-suppliers selected from the lists furnished along with offer.
- ii) Type test certificates of the raw material and both bought out accessories.
- iii) Quality Assurance Plan (QAP) withholds points for purchaser's inspection.

The supplier shall submit the routine test certificates of bought out accessories and raw material viz. Copper, aluminum conductors, lubricating material, gear material etc. at the time of routine testing of the fully assembled isolator.

29.0 **DOCUMENTATION:**

All drawings shall conform to relevant international standards organization (ISO). All drawings shall be in ink and suitable for micro filming. All dimensions and data shall be in S.I. Units.

30.0 **List of Drawings and Documents**

The Bidder shall furnish four sets of following drawings / documents along with his offer.

- a) General outline and assembly drawings of the dis-connector operating mechanism, structure, insulator and terminal connector.
- b) Sectional views and descriptive details of items such as moving blades, contacts, arms contact pressure, contact support bearing housing of bearings, balancing of heights, phase coupling pipes, base plate, operating shaft, guides, swivel joint operating mechanism and its components etc.
- c) Loading diagram
- d) Drawings with structure for the purpose of type tests.
- e) Name plate.
- f) Schematic drawing.
- g) Type test reports.
- h) Test reports, literature, pamphlets of the bought-out items and raw material.

The supplier shall within 2 weeks of placement of order submit four sets of final versions of all the above said drawings for Purchaser's approval. The purchaser shall communicate his comments / approval on the drawings to the supplier. The supplier shall, if necessary, modify the drawings and resubmit four copies of the modified drawings for Purchaser's approval within two weeks from the date of comments. After receipt of approval the supplier shall within three weeks submit 15 prints and two good quality re-producible of the approved drawings for purchaser's use.

Six sets of the type test report, duly approved by the Purchaser shall be submitted by the supplier for distribution, before commencement of supply Adequate copies of acceptance and routine test certificates, duly approved by the Purchaser shall accompany the dispatched consignment.

The manufacturing of the equipment shall be strictly in accordance with the approved drawings and no deviation shall be permitted without the written approval of the purchaser. All manufacturing and fabrication work in connection with the equipment prior to the approval of the drawing shall be at the supplier risk.

31.0 **PACKING AND FORWARDING:**

The equipment shall be packed in crates suitable for vertical / horizontal transport, as the case may be and suitable to withstand handling during transport and outdoor storage during transit. The supplier shall be responsible for any damage to the equipment during transit, due to improper and inadequate

packing. The easily damageable material shall be carefully packed and marked with the appropriate caution symbols.

Wherever necessary, proper arrangement for lifting, such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by supplier without any extra cost.

Each consignment shall be accompanied by a detailed packing list containing the following information:

- (a) Name of the consignee.
- (b) Details of consignment.
- (c) Destination.
- (d) Total weight of consignment.
- (e) Handling and unpacking instructions.
- (f) Bill of material indicating contents of each package.

The supplier shall ensure that the bill of material is approved by the purchaser before dispatch.

32.0 **ERECTION TESTING AND COMMISSIONING (ET&C):**

Erection, Testing and Commissioning:

The erection, testing and commissioning of all equipments mentioned in the BOQ should be done in the presence of authorized representative of AEGCL.

Erection work shall be done strictly according to the provisions of IS: 802

The pre-commissioning checklist will be further developed by the contractor and will seek approval prior to commencement of pre-commissioning tests from the T&C Wing, Samaguri, AEGCL. The tests will be witnessed and approved by him or by his authorized officers.

33.0 **SITE VISIT**

The interested bidders are advised to visit the site and examine the site 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 construction of transformer pad, foundation of bay equipments and erection of mounting structures for different terminal equipments are not in the scope of this bid.

34.0 **FINAL CHECKING, TESTING & COMMISSIONING**

After completion of the works, final checking shall be done by the contractor to ensure that all the work 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 equipments are properly earthed, commissioned with the LT power and control cables layed and terminated strictly according to AEGCL's requirements and are free of any defect or damage whatsoever.
2. The extended earthmat is constructed and painted with connections to risers for equipment earthing. The contractor shall submit a report to the above effect.

3. 40mm dia., 3 mtr long M.S rod earth electrode (driven) is installed with test link for tower with earth peak, Las etc with necessary connection to risers etc.
4. Stringing 33Kv extended bus is completed with insulator strings properly hoisted
5. After final checking, any defect if found shall be rectified by the contractor.

35.0 **SUPERVISION OF ERECTION TESTING AND COMMISSIONING (ET&C):**

Purchaser proposes to utilize the services of the supplier for supervision of testing and commissioning of the equipment being supplied by him, if it is required. For this purpose, the supplier should make available the services of trained personnel (Engineers) who shall correct in the field, any errors or omissions in order to make the equipment and material properly perform in accordance with the intent of this specification. The Engineer shall also instruct the plant operators in the operation and maintenance of the commissioned equipment. The supplier shall be responsible for any damage to the equipment on commissioning the same, if such damage results for the faulty or improper ET&C. Purchaser shall provide adequate number of skilled / semi-skilled workers as well as ordinary tools and equipment and cranes required for equipment erection, at his own expenses. Apart from the above, the Purchaser shall not be responsible for providing any other facilities to the supplier. Special tools if required for erection and commissioning shall be arranged by the supplier at his cost and on commissioning these shall be supplied to the purchaser free of cost for future use.

36.0 Wherever there is any variation in between the conditions of the AEGCL's General Conditions of Supply and Erection 2009 and the above terms & conditions, this bid conditions will supersede the conditions of the AEGCL's General Conditions of Supply and Erection 2009.

37.0 **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:

37.1 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.

37.2 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.

37.3 Contractual failure: - Refer clause No.27.1 of AEGCL's General Conditions of supply and erection 2009.

38.0 **PERT Chart and/or BAR Chart:**

The successful bidder within 10 (ten) days before the contract is awarded will make out a detailed PERT Chart covering all activities along with detailed program chart on accepted scheme indicating various stages of execution, method of execution and completion of work in different stages keeping the period of completion in view and submit the same to the Engineer for the consideration and approval.

39.0 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.

40.0 Warranty:

40.1 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.

40.2 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. The supplier will provide warranty for the works executed by them.

40.3 If during the Period Warranty any defect is found, the Purchaser shall give Notice to the Supplier/Manufacture stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier/Manufacturer to inspect such defects.

40.4 If having been notified, the Supplier/Manufacturer fails to remedy the defect within a period of 15 (fifteen) days, the Purchaser may, following notice to the Supplier/Manufacturer, proceed to do such work, and the reasonable costs incurred by the Purchaser in connection therewith shall be paid to the Purchaser by the Supplier or may be deducted by the Purchaser from any amount due the Supplier or claimed under the Performance Security.

40.5 The term period of warranty shall mean the period of **18 months from the date of completion of work**. The successful bidder should warrant the free replacement of any damaged/malfunctioning equipment and its accessories during the warranty period.

41.0 Safety:

41.1 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.

41.2 **COVID-19 rules must be strictly followed during the working period.**

42.0	Payment terms:
42.1	No advance/Mobilization advance shall be made in this contract.
42.2	Progressive payments for erection works wherever applicable
42.2.1	Within 60 (sixty) days from the date of submission of invoice against foundation, erection & civil works, not more than 80% (eighty percent) of the total verified invoice would be made. However, GST amount on Invoice would be paid 100% or as per Govt. Rules.
42.2.2	Maximum 4(four) Nos. of progressive erection Invoice/ Bill would be entertained during entire erection work.
42.2.3	The 1 st Progressive erection Invoice/Bill would be entertained on completion of 30% of total erection cost of the Project.

42.2.4	Minimum value of 2 nd and 3 rd invoice should be 20% of the total order value for the foundation, erection and civil works.
42.2.5	Remaining 20% of the erection value would be paid on successful completion of 100% erection, testing and commissioning activities of the project, which should be certified by the Project Manager.
42.3	Payment will be made by DGM, Tezpur T&T Circle, AEGCL, Kunderbari, Tezpur. 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
43	Performance security deposit:
43.1	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, Bijulee Bhawan, Paltanbazar, Guwahati-1 , and such security deposit shall be valid up to 30 days beyond the warranty period of 18 (Eighteen) months. The Bank Guarantee (BG) should be submitted to the O/O the Deputy General Manager, Tezpur T&T Circle, AEGCL, Tezpur-784154 by the issuing Bank under registered post AD.
43.2	Please note that, if the selected Bidder / Firm fail 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.
43.3	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.
43.4	No interest shall be payable on such deposits.
44	Retention Money:
44.1	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.
44.2	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.
44.3	No interest shall be payable on such deposit.

45.0 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.

46.0 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.

47.0 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

- (i) No of years the Firm/Contractor has been in operation under its present name.
- (ii) Details of work executed/being executed by the tenderer in the last three years.
- (iii) Testimonials from Clients Company on various works executed for the last three years.
(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	Specified date of completion	Present status/completed on

B) Financial Position

- (i) Financial Turnover during the last three years (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.

BOQ/PRICE BID

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

s/n	Particulars	Unit	Qty.	Unit Price (₹)	Amount (₹)
1	Price schedule A:Supply schedule				
1.1	Supply of feeder Current transformers (1-Phase, 0.2 class live tank type) including all accessories and terminal connectors, marshalling box as required.(so as to retrofit on the existing foundation)				
	(i) 36 kV, 600-300/1-1-1 A	Nos	3		
	(ii) 33kV CT Clamp (suitable for panther)	Nos	6		
1.2	Mandatory spares				
	(i) 36 kV, 600-300/1-1-1 A	Nos	1		
	(ii) 33kV CT Clamp (suitable for panther)	Nos	2		
2	Price schedule B: F&I Schedule				
2.1	For Supply of feeder Current transformers (1-Phase, 0.2 class live tank type) including all accessories and terminal connectors, marshalling box as required.(so as to retrofit on the existing foundation)	Nos	4		
2.2	For 33kV CT clamp(suitable for panther)	Nos	8		
3	Price schedule C:ETC Schedule				
3.1	Dismantling of CT (without structure) -33kV level (including all necessary works)	Per unit	3		
3.2	Fabrication of equipment structure for CT	Per job	1		
3.3	Erection, Testing and commissioning including laying of control cables and equipment earthing as required to complete the job	For 33kV CT	3		
Total cost for Materials + Erection +installation (1+2+3)					
GST @ 18%					

Grand total	
Say	

Rupees in words

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

Manufacturer's Authorization (MA)
(MA for both shall be furnished by the Bidder from the manufacturer)
(Current Transformer)

Date: *[insert date (as day, month and year) of Bidding submission]*

Bid No.: *[insert number of bidding process]*

To: *[insert complete name of the Employer]*

WHEREAS

We *[insert complete name of the manufacturer or manufacturer's authorized agent]*, who are official manufacturers or agent authorized by the Manufacturer of *[insert type of goods manufactured]*, having factories at *[insert full address of manufacturer's factories]*, do hereby authorize *[insert complete name of the Tenderer]* to submit a Tender the purpose of which is to provide the following goods, manufactured by us *[insert name and/or brief description of the goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with **Clause 32.0 of the bidding document, with respect to the goods offered by the above firm.**

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

In the capacity of *[insert: title of position or other appropriate designation]* **(and this should be signed by a person having the power of attorney to legally bind the manufacturer).**

Signed: *[insert signature(s) of authorized representative(s) of the manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of *[insert complete name of the manufacturer]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Notes:

1. The letter of Undertaking should be on the letterhead of the Manufacturer and should be signed by a person competent and having Power of Attorney to sign on behalf of the Manufacturer (to be attached with this MA) to legally bind the Manufacturer. It shall be included by the bidder in its bid.

ANNEXURE: I

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	:₹
	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- 34)	: Yes/No
5)	Date of completion of supply/Erection. (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 no-35)	: Yes/No
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. 15.3.5enclosed.	: Yes/No
16)	Manufacturer Authorization for each item listed in Table 1.0	: Yes/No
17)	Guaranteed Technical and Other Particulars	: Yes/No

Name of the Bidder:-

Signature of the Bidder/Firm

Full Name

Postal Address

Phone/Mobile No.

SCHEDULE - A

GUARANTEED TECHNICAL AND OTHER PARTICULARS

(To be filled in by Bidder and shall be furnished with the Technical Bid)

1. Current Transformer

SL No.	A. Item	Ratings and Particulars
I	II	III
A	Nominal system voltage	
B	Highest system voltage, kV	
C	Rated frequency, HZ	
D	System earthing	
E	Insulation level	
a)	Impulse withstand voltage: kVp	
b)	One-minute p.f. Withstand voltage, kV (r.m.s.)	
F	Short time current for 3 seconds, kA	
G	Minimum creepage distance, mm	
H	Temperature rise	
I	FEEDER C.T.	
	(i) No. of Cores	
	(ii) Transformation ratio	
	(iii) Rated out put	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	
	(iv) Accuracy class	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	
	(v) Accuracy limit factor	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	

	(e) Core-5	
	(vi) Instrument security factor	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	
	(vii) Minimum Knee point voltage, Volts	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	
	(viii) Maximum secondary resistance, ohm	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	
	(ix) Maximum exciting current, at $V_k/4$ mA	
	(a) Core-1	
	(b) Core-2	
	(c) Core-3	
	(d) Core-4	
	(e) Core-5	