

ASSAM ELECTRICITY GRID CORPORATION LIMITED

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

CIN: U40101 AS2003SGC007238

Phone: 0361-2739520/Fax:0361-2739513 [web: www.aegcl.co.in](http://www.aegcl.co.in)



Bidding Document

For

Supply, Erection, Testing and Commissioning of new 132 kV CT (800-400/1-1-1-1) against replacement of old 132 kV CT in the 132 kV Jiribam feeder at 132 kV Pailapool GSS inclusive supply of new control cable

**DEPUTY GENERAL MANAGER
SILCHAR T&T CIRCLE
AEGCL, SILCHAR-788015**

Tender Cost: ₹ 1000.00

EMD: ₹ 20,700.00

For & on behalf of the **Managing Director, AEGCL, the Deputy General Manager, Silchar T&T Circle, AEGCL, Silchar**, 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 INR	Time of Completion In Days	Bidding Address
1	Supply, Erection, Testing and Commissioning of new 132 kV CT (800-400/1-1-1-1) against replacement of old 132 kV CT in the 132 kV Jiribam feeder at 132 kV Pailapool GSS inclusive supply of new control cable	10,33,887.00	150 days from the date of issue of Supply order	O/o The DGM, Silchar T&T Circle, AEGCL, Silchar, Meherpur, Silchar-15

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 “Managing Director, AEGCL, Paltan Bazar, Guwahati-01”, payable at Guwahati.

2.0 Bidding Address:

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

3.0 Key Dates: -

- | | |
|--|--------------------------|
| a) Bid Document available in Website: | 12:00 hrs. of 12-06-2024 |
| b) Bid Submission Start Time & date: | 12:00 hrs. of 12-06-2024 |
| c) Bid Submission end time & date: | 14:00 hrs. of 02-07-2024 |
| d) Techno-Commercial Bid Opening time: | 11:30 hrs. of 03-07-2024 |

4.0 Bidding Procedure :

- All Tenders shall have to be submitted in prescribed forms attached herewith eventually to be drawn up in the rules of AEGCL.
- Two different envelopes to be used as follows:-
Envelope-1 (Technical Bid): Bid document signed by the bidder on all pages, Tender fee, Earnest Money, Techno-commercial data of the Bidder, GTP and other mandatory documents must be enclosed.
Envelope-2 (Price Bid): As per format of the Price Bid attach.
- All tenders shall have to be submitted under **sealed & signed** covers super-scribing the **Tender Notice No** and **Name of the Work** completely and clearly on the top of the corner.
- All tenders shall have to be submitted/drop in the concerned tender box on or before the last date and time of submission of tenders either by post or in person.
- If Bidders desire to submit their Bid by post, at their own expenses, it should be posted well in advance so as to ensure that their tenders reach the office of the tendering address on or before the specified date and time of submission of tender. AEGCL will not take any responsibility for loss, damage, tempering or delay of tenders sent by post.
- Bidder submitting Bid in person should submit their Bid in the tender box during the working hours on or before the last date and time of submission of tender.
- Tender will be rejected if submitted beyond the aforesaid time and date.
- AEGCL has the right to cancel the tender at any moment, without assigning any reason thereof. Bidder will not be entitled to claim any expenses and AEGCL will not be responsible for any costs or expenses incurred on the preparation and submission of the Bids.

5.0 Validity of Bids and Bids Prices:

- 5.1 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.
- 5.2 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.

6.0 Bid Security:

- 6.1 All bids must be accompanied by a bid security amounting to **Rs. 20,700.00 (Rupees Twenty Thousand Seven Hundred)** only in the form of **Demand Draft** from any Nationalized Bank payable at Guwahati in favour "**Managing Director, AEGCL, Paltan Bazar, Guwahati-01**", payable at **Guwahati**.
- 6.2 Any bid not complying with the terms and conditions then his bid shall be rejected by the Employer as non-responsive.
- 6.3 The earnest money of the successful Bidder shall be returned when the successful Bidder has signed the Contract and furnished the required performance security.
- 6.4 The earnest money of the unsuccessful Bidders shall be returned as promptly as possible when the successful Bidder has signed the Contract.
- 6.5 The earnest money 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 Sign the Contract with in the specified period.
- 6.6 The Bid Security of a JV shall be in the name of the JV that submits the bid.

7.0 Format and Signing of Bid:

- 7.1 The Bidder shall prepare one original copy of the Technical Bid and one original copy 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.
- 7.2 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.
- 7.3 A bid submitted by a JV shall be signed so as to be legally binding on all partners.
- 7.4 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

8.0 Eligible Bidders:

- 8.1 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.
- 8.2 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.

8.3 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.

8.4 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.

8.5 Bidders shall provide such evidence of their continued eligibility satisfactory to the AEGCL, as the Employer shall reasonably request.

9.0 Financial Capability:

9.1 Bidder will require to submit along with the bid the **audited balance sheets, IT return 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.

9.2 **Average Annual Turnover:** Minimum average annual turnover **INR 3,10,166.10** calculated as total certified payments received for contracts in progress or completed, within the last 3 (Three) Years.

10.0 Work Experience:

10.1 The Bidder should have successfully completed similar works within last 5 (Five) Financial years. Documentary evidence such as Work Order, Completion Certificate, etc. should be submitted as per below mentioned criteria:

- (a) **Three (3) similar** completed works costing not less than **Rs.4,13,554.80**
- (b) **Two (2) similar** completed works costing not less than **Rs. 5,16,943.50**
- (c) **One (1) similar** completed works costing not less than **Rs. 8,27,109.60**

10.2 The Bidder must have experience of executing work of similar nature previously. The bidder must submit experience and completion certificate for scrutiny by AEGCL.

11.0 Evaluation Criteria:

11.1 **Evaluation will be done on the basis of Bid Clause No. 8.0 : Eligible Bidders, Cl. No. 9.0 : Financial Capability, Cl. No. 10.0 : Work Experience and in accordance with the Annexure I to be duly filled in, signed and submitted by the bidder.**

11.2 Price Bid of only **Responsive and Qualified Techno-Commercial Bidders** will be opened.

11.3 **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.

12.0 Correction of Errors in the Price Bid:

12.1 **Arithmetical Error**, if observed while in Price Bid evaluation, same will only be corrected.

12.2 Arithmetic Errors in the Price Bid will be rectified on the following basis:

- (a) If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate shall prevail and the total cost will be corrected unless in the opinion of AEGCL there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate corrected. If there is a discrepancy between the total bid amount and the sum of total costs, the sum of total costs shall prevail and the total bid amount will be corrected.
- (b) The amount stated in the Price Bid will be adjusted by AEGCL in accordance with the above procedure for the correctness of errors and shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bid security may be forfeited.

12.3 **Any post bid correction request will NOT BE ENTERTAINED.**

13.0 Bid Evaluation Process for Abnormally Low Bids (ALB):

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

(a) **Identification:** For the Identification of the Abnormally Low Bids, two approaches as applicable shall be adopted :-

(i) **Absolute Approach:** When there are fewer than five substantially responsive bidders and if the bid price is 20% or more below the 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:-**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.

In this approach first the Average Bid Price is determined and then by deducting the standard deviation from the average bid price, potentially ALB may be determined

(b) In case of an ALB, the tender evaluation committee of the respective tenders shall undertake the following three stage review process which are as below:

- i. Identify ALB as per the steps mentioned in Clause No. (a). (i) and (a). (ii), whichever is applicable.
- ii. 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.
- iii. To decide whether to accept or reject the bid.

(c) **Additional Performance Security** In case of acceptance of ALB:

- i. 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.
- ii. 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.
- iii. 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.

14.0 Late Bid:

- 14.1 Any bid submitted *after the due date and time* will be rejected without any prejudice.
- 14.2 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.
- 14.3 Bidding through **EMAIL WILL NOT BE ACCEPTED.**

15.0 Clarification on Bid Documents and Contacting AEGCL:

- 15.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the AEGCL in writing at the AEGCL's address (**O/o the Deputy General Manager, Silchar T&T Circle, AEGCL, Silchar-788015**) and 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.
- 15.2 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.
- 15.3 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.

16.0 Amendment of Bidding Document:

- 16.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.
- 16.2 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.
- 16.3 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.

17.0 Preparation of Bids by the Bidders:

- 17.1 **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.
- 17.2 **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.

18.0 Bid Prices and Discounts:

- 18.1 Bidders shall quote price inclusive of GST and all other applicable taxes. No extra calculation for discounts or other taxes will be done during evaluation.
- 18.2 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.
- 18.3 Bidders are required to quote the price for the commercial, contractual and technical obligations

outlined in the bidding document.

- 18.4 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.
- 18.5 Since 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.
- 18.6 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.
- 18.7 **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.

19.0 **Mandatory Documents:**

- (i) Bidders(s) knowledge from actual personal investigation of the resources of the region or District (S) in which he/they offers the work.
- (ii) The Bidder shall furnish copy of their **PAN Card**. In case the bidder is a partnership Firm, the **PAN** card must be in the name of firm.
- (iii) In case the bidder is a partnership Firm, the **work experience, solvency and turn over** shall be in the name of **partnership Firm** only.
- (iv) **GST registration No.**
- (v) **Registered Power of attorney, if any.**
- (vi) **IT Return for last three Years.**
- (vii) **Audited Balance Sheet for last three years.**
- (viii) **Bank Solvency certificate.**
- (ix) **GTP of the equipment to be supplied.**
- (x) **Manufacturer’s authorization.**
- (xi) **Valid Electrical License (132 KV & above)**
- (xii) **Valid Labour License**
- (xiii) **EPF Registration Certificate**
- (xiv) **Type Test Reports of all the tests as per IS -2705/equivalent IEC of the offered design,rating(132 kV , 800-400/1-1-1-1A or higher and STC-40 KA for 1 sec or higher) and construction as per bid clause 20.15**
- (xv) **Performance Certificate of satisfactory operation for at least 2 years from any Central/State Govt. PSU which is not older than 5 years (is to be required at the time of Submission of Drawing & Engineering data).**

20.0 **TECHNICAL REQUIREMENTS**

20.1 **Intent of specification**

This section of the specification deals with the technical information & criteria for “**Supply, Erection, Testing and Commissioning of new 132 kV CT (800-400/1-1-1-1) against replacement of old 132 kV CT in the 132 kV Jiribam feeder at 132 kV Pailapool GSS inclusive supply of new control cable**”. The Contractor's proposal shall be based on the use of materials complying fully with the requirements specified herein.

20.2 **Scope of Works :-**

- a) The scope of work involves “**Supply, Erection, Testing and Commissioning of new 132 kV CT (800-400/1-1-1-1) against replacement of old 132 kV CT in the 132 kV Jiribam feeder at 132 kV Pailapool GSS inclusive supply of new control cable**”.
- b) Freight and Transit insurance, storage at site and site insurance of all materials at site shall be in the scope of the contractor.

20.3 **Supplier to Inform himself fully:-**

- The supplier should ensure that he has examined the specifications and schedules as brought out in this section as well as other sections of the Bidding Document 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.

- The Purchaser shall not be responsible for any misunderstanding or incorrect information obtained by the contractor other than information given in writing by the Purchaser.

20.4 **Service Conditions:-**

The plant and materials supplied shall be suitable for operation under the following climatic and other conditions:

Peak ambient day temperature in still air	: 45⁰C
Minimum night temperatures	: 0⁰C
Reference ambient day temperature	: 45⁰C
Maximum Relative Humidity	: 100%
Minimum Relative Humidity	: 10%
Altitude	: Below 1000 M above MSL
Maximum Wind Pressure	: As per IS:802 latest code
Seismic Intensity	: ZONE-V as per IS 1893

20.5 **Conformity with Indian Electricity Rules & Other Local Regulations:-**

- The Supplier 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 regulations relating to such works shall be consulted, if necessary, about the rules and regulations that may be applicable.
- 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.

20.6 **Standards:-**

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

20.7 **Engineering Data:-**

- The furnishing of engineering data by the supplier shall be in accordance with the Bidding Document. The review of these data by the Purchaser will cover only general conformance of the data to the specifications and not a thorough review of all dimensions, quantities and details of the materials, or items indicated or the accuracy of the information submitted. This review by the Purchaser shall not be considered by the supplier as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these specifications.
- All engineering data submitted by the supplier after review by the Purchaser shall or part of the contract document.

20.8 **Drawings and Documents for approval:-**

- The supplier shall submit all drawings and documents of all equipment to be supplied include drawings of foundation, steel structure and any other drawings that may be required for successful completion of the project and get it approved by the Purchaser.
- In addition, the following sub clauses shall also apply in respect of Contract Drawings.
- All drawings submitted by the Supplier including those submitted at the time of Bid shall be with sufficient detail to indicate the type, size, arrangement, dimensions, material description, bill of materials, weight of each component break-up for packing and shipment, fixing arrangement required, the dimensions required for installation and any other information specifically requested in these specifications.
- Each drawing submitted by the Supplier shall be clearly marked with the name of the Purchaser, the specification title, the specification number and the name of the project. All titles, noting, markings and writings on the drawing shall be in English. All the dimensions should be to the scale and in S.I. units.
- The drawing submitted for approval to the Purchaser shall be in quadruplicate. One print of such drawings shall be returned to the supplier by the Purchaser marked “approved/approved with corrections”. The

Supplier shall there upon furnish the Purchaser additional prints as may be required along with one reproducible in original of the drawings after incorporating all corrections.

20.9 Final Drawings and Documents:-

The successful supplier shall require providing following documents and drawings for each bay constructed in printed form:

- a) *Instruction manuals of all equipment in 3 (Three) copies.*
This instruction manual shall generally consist of
 - *Operation Manuals*
 - *Maintenance Manuals and*
 - *Spare Parts Bulletins*
- b) *Copies of routine test reports (in triplicate) of relevant equipment.*
- c) *Final guaranteed and other technical particulars of relevant equipment.*

In addition to the above, the contractor shall provide **5 (Five) sets** of all drawings and documents to Purchaser in printed form for his reference and record.

20.10 Quality assurance, Inspection & Testing:-

To ensure that the supply of manufactured equipment(s) and services under the scope of this contract whether manufactured or performed within the contractor's works or at his subcontractor's premises or at site or at any other place of work are in accordance with the specifications, the contractor shall adopt suitable quality assurance programme to control such activities at all points necessary. Such programme shall be outlined by the contractor and shall be finally accepted by the Purchaser after discussions before award of contract. A quality assurance programme of the contractor shall generally cover but not limited to the following:

- His organization structure for the management and implementation of the proposed quality assurance programme.
- Documentation control system.
- Qualification data for contractor's key personnel
- The procedure for purchase of materials, parts components and selection of subcontractor's services including vendor analysis, source inspection, incoming raw material inspection, verification of material purchases, etc.
- System for shop manufacturing including process controls and fabrication and assembly controls.
- Control of non-conforming items and system for corrective action
- Control of calibration and testing of measuring and testing equipment
- Inspection and test procedure for manufacture
- System for indication and appraisal of inspection status
- System for quality audits
- System for authorizing release of manufactured product to the Purchaser
- System of maintenance of records
- System for handling storage and delivery
- A quality plan detailing out the specific quality control procedure adopted for controlling the quality characteristics relevant to each item of supply. The quality plan shall be mutually discussed and approved by the Purchaser after incorporating necessary corrections by the contractor as may be required.

20.11 Quality Assurance Documents:-

- The contractor shall be required to submit all the quality assurance documents as stipulated in the quality plan at the time of Purchaser's inspection of equipment/material.
- The Purchaser or his duly authorized representatives reserves the right to carry out quality audit and quality surveillance of the systems and procedures of the contractors/his vendors quality management and control activities.

20.12 Employer's Supervision:-

- To eliminate delays and avoid disputes and litigation it is agreed between the parties to the Contract that all matters and questions shall be resolved in accordance with the provisions of this document.
- The manufacturing of the product shall be carried out in accordance with the specifications. The scope of the duties of the Employer, pursuant to the contract, will include but not be limited to the following.
 - a) Interpretation of all the terms and conditions of these Documents and Specifications.
 - b) Review and interpretation of all the Contractors drawings, engineering data etc.
 - c) Witness or authorize his representative to witness tests at the manufacturer's works or at site, or at any place where work is performed under the contract.

- d) Inspect, accept or reject any equipment, material and work under the Contract, in accordance with the Specifications.
- e) Issue certificate of acceptance and/or progressive payment and final payment certificate.
- f) Review and suggest modification and improvement in completion schedules from time to time,
- g) Supervise the Quality Assurance Programme implementation at all stages of the works.

20.13 Inspection and Inspection Certificate:-

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

20.14 Tests:-

The type, acceptance and routine tests and tests during manufacture to be carried-out on the material and equipment shall mean as follows:

- a) **Type Tests:** - Type Tests shall mean those tests, which are to be carried out to prove the process of manufacture and general conformity of the material to this Specification. These tests shall be carried out on samples prior to commencement of commercial production against the order. The Bidder shall indicate his schedule for carrying out these tests.
 - b) **Acceptance Tests:** - Acceptance Tests shall mean those tests, which are to be carried out on samples taken from each lot offered for pre-dispatch inspection, for the purposes of acceptance of that lot.
 - c) **Routine Tests:** - Routine Tests shall mean those tests, which are to be carried out on the material to check requirements, which are likely to vary during production.
 - d) **Tests during Manufacture:** - Tests during manufacture shall mean those tests, which are to be carried out during the process of manufacture and end inspection by the Contractor to ensure the desired quality of the end product to be supplied by him.
- The norms and procedure of sampling for these tests will be as per the Quality Assurance Programme to be mutually agreed to by the Contractor and the Employer.
 - The standards and norms to which these tests will be carried out are specified in subsequent Sections of this Specification. Where a particular test is a specific requirement of this Specification, the norms and procedure of the test shall be as specified or as mutually agreed to between the Contractor and the Employer in the Quality Assurance Programme.
 - For all type and acceptance tests, the acceptance values shall be the values specified in this Specification or guaranteed by the Bidder or applicable Standards, as applicable.

20.15 Type Test Reports:-

- Materials, which have never been tested for critical performance, shall not be accepted. In such cases, a promise or agreement by a bidder to have the equipment tested after award of a contract is not acceptable.
- All Bids must be accompanied by the Type Test Certificates of materials offered. Such type test certificates shall be acceptable only if:
 - i) Tests are conducted in an independent testing laboratory with NABL accreditation/CPRI,
 - ii) Tests are conducted in manufacturer's own laboratory.
 In this case
 - (a) The laboratory must have NABL accreditation; and
 - (b) Tests have been witnessed by technically qualified representatives of earlier clients or purchaser.
- Test reports to be acceptable must be related directly to the equipment offered i.e. it is fully identical in design, rating and construction with the equipment for which the type test certificates have been submitted. Test reports for higher class (by capacity/voltage etc.) of equipment are acceptable with

commitment to perform the type tests free of any charge on the particular equipment after the award of contract.

- Type Test Reports older than five (5) years on the date of Technical bid opening shall not be accepted.

20.16 Guaranteed Technical Particulars:-

- The Guaranteed Technical Particulars of the various items shall be furnished by the Bidders with the Technical Bid in the prescribed Schedules attached in this bidding document. The Bidder shall also furnish any other information's as in their opinion is needed to give full description and details to judge the item(s) offered by them.
- The data furnished in Guaranteed Technical Particulars should be the minimum or maximum value (as per the requirement of the specification) required. A Bidder may guarantee a value more stringent than the specification requirement. However, for testing purpose or from performance point of view, the material shall be considered performed successfully if it achieves the minimum/maximum value required as per the technical specification. No preference whatsoever shall be given to the bidder offering better/more stringent values than those required as per specification except where stated otherwise.

20.17 Materials Handling and Storage:-

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

21.0 SPECIFICATION:-

21.1 TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMERS:-

21.1.1 SCOPE OF CONTRACT:-

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

21.1.2 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.
- In case of any conflict between the Standards and this specification, this specification shall govern.
- 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.

21.1.3 GENERAL REQUIREMENTS:-

- The cores of the instrument transformers shall be of high grade, non-aging CRC steel of low hysteresis loss and high permeability. Both primary and secondary windings shall be of Copper.
- Instrument transformers shall be of Live Tank design.

- 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 is requested to quote the current transformers with stainless steel diaphragm (bellow). All parts of the bellow shall be of stainless steel only. A round glass window shall be provided to monitor position of the bellow.
- The instrument transformers shall be completely filled with oil.
- 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. TBs shall be of Elmex / Connectwell. The degree of protection of the secondary terminal box shall be IP-55.
- All instrument transformers shall be of single-phase unit.
- The instrument transformers shall be so designed to withstand the effects of temperature, wind load, short circuit conditions and other adverse conditions.
- All similar parts, particularly removable ones, shall be interchangeable with one another.
- All cable ferrules, lugs, tags, etc. required for identification and cabling shall be supplied complete for speedy erection and commissioning as per approved schematics.
- 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.
- 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.

21.1.4 **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

21.1.5 **COMMON MARSHALLING BOXES:-**

- The outdoor type common marshalling boxes shall conform to the latest edition of IS 5039 and other general requirements specified hereunder.
- The common marshalling boxes shall be suitable for mounting on the steel mounting structures of the instrument transformers.
- 1(One) common marshalling box shall be supplied with each 3(three) nos. of current transformers. The marshalling box shall be made of sheet steel and weather proof. The thickness of sheet steel used shall be not less than 3.15 mm. It is intended to bring all the secondary terminals to the common marshalling.
- The enclosures of the common marshalling boxes shall provide a degree of protection of not less than IP 55 (As per IS 2147).
- 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.
- 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. TBs shall be of Elmex / Connectwell.
- 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.
- All terminal strips shall be of isolating type terminals and they will be of minimum 10 A continuous current rating.
- 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.
- Each common marshalling box shall be provided with two numbers of earthing terminals of galvanized bolt and nut type.
- 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:
 - Inside: Glossy White
 - Outside: Light Grey (Shade No. 697 of IS: 5)

21.1.6 **BUSHINGS AND INSULATORS:-**

- 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.

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

22.0 TESTS AND INSPECTIONS:-

22.1 Type Tests:-

- In accordance with the requirements in Clause 20.15, Current transformers should have been type tested. The successful bidder shall submit complete test reports (valid as per Clause 20.15) of equipment of finally selected Manufacturer for the Purchaser's review and record.

22.2 Routine/Acceptance Tests (all units):-

- All the equipment(s) shall be subjected to routine tests carried out in accordance with relevant Standards. All routine/acceptance tests shall be witnessed by the Purchaser/his authorized representative. In addition, the following tests on Current Transformers are to be carried out as Routine Tests:
 - i) Measurement of Capacitance
 - ii) Oil Leakage Test
 - iii) Measurement of Tan delta test at 0.3, 0.7, 1.0 $U_m/\sqrt{3}$ and 10kV.
- At factory/works tests the Tan Delta shall not exceed 0.3% (at $U_m/\sqrt{3}$). The same shall not exceed 0.7% at the end of warranty period (refer SCC clause 32.0). If tan delta value of CTs exceed prescribed limit of 0.7% within warranty period, it will be considered as failure within warranty period (Tan delta & capacitance test of CTs shall be measured at 10KV at site). The bidder has to replenish failed CTs within guarantee period without any cost implication to AEGCL.

23.0 NAME PLATES:-

- Name plate shall conform to the requirements of IS incorporating the year of manufacture. The rated current, extended current rating (if specified) in current transformers shall be clearly indicated on the name plate. The rated thermal current in case of CT shall also be marked on the name plate.
- 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.

24.0 MOUNTING STRUCTURES:-

- 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. The support structure shall be of steel hot dip galvanized type.
- Each equipment shall be furnished complete with base plates, clamps, and washers etc. and other hardware ready for mounting on existing steel structures.

25.0 SAFETY EARTHING:-

- The non-current carrying metallic parts and equipment shall be connected to station earthing grid. For this, two terminals suitable for 65mm X 12mm GI strip shall be provided on each equipment.

26.0 TERMINAL CONNECTORS:-

- The equipment shall be supplied with required number of terminal connectors of approved type suitable for ACSR conductor as per site requirement. The type of terminal connector, size of connector, material, and type of installation shall be approved by the Purchaser, as per installation requirement while

approving the equipment drawings. The short time current rating of the conductor shall be same as that of the equipment. Minimum thickness of current carrying part shall be 12mm.

27.0 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) Magnetising characteristics test.
 - vi) Tan delta and capacitance measurement
 - vii) Secondary winding resistance measurement
 - viii) Contact resistance measurement (wherever possible/accessible).

28.0 TECHNICAL DATA SHEET FOR CURRENT TRANSFORMERS:-

- For 132 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 up to the terminal blocks.

29.0 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. Note: 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. The knee point voltage specified above shall be at higher ratio/ taps.

<u>Item</u>	<u>Ratings and Particulars</u>
(A) Nominal system voltage	132 kV
(B) Highest system voltage, kV	145
(C) Rated Frequency, Hz	50
(D) System Earthing	Solidly earth
(E) Insulation Level	
(a) Impulse withstand voltage, kVp	650
(b) One-minute p.f. withstand voltage, kV (r.m.s.)	275
(F) Short Time Current for One second, kA	40
(G) Minimum creepage distance, mm	4495 mm min
(H) Temperature Rise	As per IS 2705/1992
(I) Tan delta at $U_m/\sqrt{3}$, (Max)	≤ 0.003
(J) Rated Continuous Thermal Current	120 %
FEEDER C.T.	
(i) No. of Cores	4
(ii) Transformation ratio	800-400/1-1-1-1 A
(iii) Rated output, VA	
(a) Core-1	30 VA
(b) Core-2	20 VA
(c) Core-3	-
(d) Core-4	-
(iv) Accuracy Class	
(a) Core-1	0.2S
(b) Core-2	5P
(c) Core-3	PS
(d) Core-4	PS
(v) Accuracy Limit Factor	
(a) Core-1	-
(b) Core-2	20
(c) Core-3	-
(d) Core-4	-
(vi) Instrument Security factor	
(a) Core-1	< 5
(b) Core-2	-
(c) Core-3	-
(d) Core-4	-

(vii) Minimum Knee point voltage, (V_k at Highest Tap)	
(a) Core-1	-
(b) Core-2	-
(c) Core-3	> 1200 V at 800 A > 600 V at 400 A
(d) Core-4	> 1200 V at 800 A > 600 V at 400 A
(viii) Maximum secondary resistance, Ohm at 75⁰C at Lowest Tap	
(a) Core-1	-
(b) Core-2	-
(c) Core-3	$\leq 3 \Omega$ at 800 A $\leq 3 \Omega$ at 400 A
(d) Core-4	$\leq 3 \Omega$ at 800 A $\leq 3 \Omega$ at 400 A
(ix) Maximum exciting current, at $V_k/4$ mA	
(a) Core-1	-
(b) Core-2	-
(c) Core-3 (at $V_k/4$)	≤ 30 mA at 800 A ≤ 30 mA at 400 A
(d) Core-4 (at $V_k/4$)	≤ 30 mA at 800 A ≤ 30 mA at 400 A
(x) Application	
(a) Core-1	Metering
(b) Core-2	Backup
(c) Core-3	Differential / Distance
(d) Core-4	Differential / Distance

Notes:

- 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 sizing calculations shall be submitted. Burden values and knee point voltage shall be decided per the calculations during detailed engineering.

30.0 Contract Agreement:

An agreement shall have to be drawn on non-judicial stamp of appropriate value with the Department by the selected Contractor in **AEGCL's General Conditions of Supply and Erection 2009** of contract within **15 (fifteen) days** from the date of issue of the **LOI/Work Order**.

31.0 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:

31.1 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.

31.2 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.

32.0 Warranty:

32.1 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.

32.2 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.

32.3 If during the Period Warranty any defect is found, the Purchaser shall give Notice to the Supplier/Manufacturer 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.

32.4 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.

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

33.0 Payment terms:

33.1 **No advance payment** shall be made in this contract.

33.2 No claim for interest shall be entertained by AEGCL.

33.3 The price is firm and no price variation shall be applicable.

33.4 First & Final bill for the supply, erection, testing & commissioning will be entertained only after **100%** completion of the work.

33.5 Payment will be made by **DGM, Silchar (T&T) Circle, AEGCL, Meherpur, Silchar**. 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

34.0 Performance security deposit:

34.1 The successful bidder shall have to deposit through a **Bank Guarantee** 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 "**Managing Director, AEGCL, Paltan Bazar, Guwahati-01**", payable at **Guwahati**, and such security deposit shall be **valid up to 30 (Thirty) days** beyond the **warranty period of 18 (Eighteen) months**. The **Bank Guarantee (BG)** should be submitted to the **O/o the Deputy General Manager, Silchar T&T Circle, AEGCL, Silchar-788015** by the successful Bidder.

34.2 Please note that, if the selected Bidder / Firm fail to furnish the requisite performance security in the form of **Bank Guarantee**, an amount equivalent to **10%** of the Contract Price shall be retained as Security Deposits which shall be retained up to **18 (Eighteen) months** from the date of Supply. .

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.

35.0 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 be 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.

36.0 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 **Cachar District**.

37.0 Insurance :

- The "Supplier" shall, have, unless, otherwise specified by the Purchaser, insure the materials through their underwrites at their cost and shall keep it insured against any loss/ damaged/ pilferage in transit, destruction or damage by fire/ flood, without exposure to vagaries of weather or through riot, civil commotion, war or rebellion, for the full value of the materials until the materials are received at the purchaser's destination store.
- The "Supplier" shall be responsible for safe arrival at destination, unloading and receipt of the materials by the consignee. The Purchaser will discharge consignee's responsibilities only and shall not be responsible for any damage/ loss/ pilferage/ non-delivery by the carriers.
- In case of any loss/ damage/ pilferage/ non-delivery/ short delivery by carriers etc.; the Supplier shall replace free of cost missing / damaged / lost materials within **30(thirty) days** from the receipt of report thereof from the consignee(s) without waiting for settlement of their claims with their carriers / under-writers. Normally, such reports from the consignee(s) to the supplier shall be initiated within a period of 30(thirty) days from the date of receipt of each consignment by him /them.
- If it is considered necessary that the damaged equipment either in part or in full to be sent back to the manufacturer's works for repair, the manufacturers/ suppliers will furnish the Bank Guarantee for the full value of equipment needing repairs and such Bank Guarantee shall remain valid till such time, the equipment are repaired and returned to the consignee in good condition. The to and fro freight, handling and insurance charges in such cases will be borne by the Supplier.
- Unless, otherwise mutually agreed upon, in case of failure by the Supplier to replenish /make good of the loss /damage /short supplied quantities, within the stipulated period, the Purchaser reserves the right to forfeit the security deposit and/ or adjust any outstanding payment to the "Supplier" with the Purchaser or take any other appropriate action.

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.

Appendix-1

Letter of Technical Bid

[Bidder's Letter head]

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:
- (iv) 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 another 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.

PRICE BID

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

Name of the Bidder:

NIT No. AEGCL/STTC/Tech-12/2024-25/05

Dated: 07.06.2024

Name of the work: Supply, Erection, Testing and Commissioning of new 132 kV CT (800-400/1-1-1-1) against replacement of old 132 kV CT in the 132 kV Jiribam feeder at 132 kV Pailapool GSS inclusive supply of new control cable

Sl. No.	Item Description	Measuring Unit	Quantity	Unit Price in ₹	F&I	Total Price in ₹
1	Supply of 145 KV outdoor type live tank single phase CT (800-400/1-1-1-1)A Feeder CT	Nos.	3			
2	Supply of Control Cable 12C, 1.5 Sqmm.	Mtrs.	250			
3	Erection, Testing & Commissioning of 132 KV, 800-400/1-1-1-1A Line CT including laying & termination of Control Cables as required and equipment earthing	Nos.	3			
4	Dismantling of 132 KV CT (without structure) in the sub-station (including all necessary associated works)	Unit	3			
5	Retrofitting of new 132 KV CTs in existing CT mounting structures	Nos.	3			
6	Dragging of dismantled 132 kV CT to a suitable site at the switchyard. Weight= 3000 kg = 3.0 MT (for 3 Nos, CT) Approx. Distance= 100 m Total Quantity = 3.0 x 100 = 300	Per MT/mtr	300			
Total Amount						
Add GST						
Grand Total						

Rupees in words _____

Name of the Bidder: -

Signature of the Bidder/Firm:-

Full Name:-

Postal Address:-

Phone/Mobile No.

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	: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-33.0)	: Yes/No
5)	Date of completion of supply (Please specify the date of completion of supply as per specification)	: Yes/No
6)	'Security and performance guarantee' (Whether agreeable to accept as specified in Clause no-34.0)	: 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.19.0 (ii)	: Yes/No
14)	GST registration no. as per Cl. No. 19.0 (iv)	: Yes/No
15)	Registered Power of Attorney as per Cl.no. 19.0 (v) enclosed.	: Yes/No

Name of the Bidder: -

Signature of the Bidder/Firm

Full Name

Postal Address

Phone/Mobile No.

ANNEXURE – II

GUARANTEED AND OTHER TECHNICAL PARTICULARS

1. CURRENT TRANSFORMERS (OUTDOOR)

(This schedule shall be filled in for each category of CT)

Sl. No.	Description	Unit	Particular
1	Name of the manufacturer		
2	Country of Origin		
3	Manufacturer's Type & Designation		
4	Standards Applicable		
5	Type of Installation		
6	Windings		
	(A) Primary Winding		
	(i) Material		
	(ii) Design density for short circuit current		
	(iii) Conductivity of metal used		
	(iv) Area of cross section		
	(B) Secondary Winding		
	(i) Material		
(ii) Area of cross section			
7	Rated Primary Voltage	kV	
8	Rated frequency	Hz	
9	Rated primary current	Amps	
10	Rated Secondary current	Amps	
11	Ratio taps (on secondary side)		
12	Type of insulation		
13	RIV at $1.1 \times$ Rated Voltage	mV	
14	Tank Material and Tank Coating		
15	Porcelain housing and its make (Single piece only)		
16	Sealing (Metal Bellow) provided		
17	Acceptable limit of temperature		
18	Acceptable partial discharge level at 1.1 times the rated voltage		
19	(i) Rated short time withstand current	kA	

	(ii) Duration of above rated short time current	Second	
20	Rated Dynamic withstand current	kAp	
21	Rated continuous thermal current	Pu	
22	1.2/50 microsecond impulse withstand voltage	kVp	
23	One-minute power frequency withstand voltage of primary winding (Dry)	kV rms	
24	One-minute power frequency withstand voltage of secondary winding (Dry)	kV rms	
25	(a) Minimum total creepage distance of insulator bushing	mm	
	(b) Protected creepage distance of bushing	mm	
26	Max Tan Delta at		
	• 30% of $U_m/\sqrt{3}$		
	• 50% of $U_m/\sqrt{3}$		
	• 100% of $U_m/\sqrt{3}$		
	• 10 kV	%	
27	Details of Core (Core details to be given for each current ratio)		
	(i) Current ratio		
	(ii) Output burden	VA	
	(iii) Class of accuracy		
	(iv) accuracy limit factor		
	(v) Instrument security factor		
	(vi) Min Knee point voltage	V	
	(vii) Max Secondary resistance corrected to 75 ⁰ C	Ohm	
	(viii) Max exciting current at		
• 20% of Knee point voltage			
• 50% of knee point voltage			
• 100% of knee point voltage	mA		
28	Weight of Oil	Kg	
29	Total weight	Kg	
30	Mounting details		
31	Overall dimensions		
32	Characteristics (whether graphs enclosed)		
	a. Ratio and phase angle curves		
	b. magnetization curves		
	c. ratio correction factor curves		
33	Core		
	(a) Area of Cross section		
	(b) Flux density at rated primary current and rated burden		