



## **NOTICE INVITING TENDER**

**NIT NO:**DGM/ED-MNP/2024-25/06**Date:**22/01/2025

**Name of work:-**Extension of HT/LT line including construction of 1X200 KVA, 11/0.433 KV Sub-Station for providing 3-Phase service connection to Jawahar Navodaya Vidyalaya Mohanpur, West Tripura within the jurisdiction of Mohanpur Electrical Division (Partial Trunk Basis).

**Estimated Cost: Rs.3,04,242.00 (Including GST)**

**(Rupees three lac four thousand two hundred forty two) only.**

**Earnest money: Rs.6085.00**  
**(Rupees six thousand eighty five) only**

**Tender Fee: Rs.1500.00**  
**(Rupees one thousand five hundred) only**

**Completion Period: 45 (Forty Five) days.**

**This NIT contains 52 pages excluding Back & cover page.**

Deputy General Manager  
Electrical Division-Mohanpur  
Mohanpur, Tripura (West)



**SECTION-I**  
**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

(A Govt. Of Tripura Enterprise)

**Name of Work: - Extension of HT/LT line including construction of 1X200 KVA, 11/0.433 KV Sub-Station for providing 3-Phase service connection to Jawahar Navodaya Vidyalaya Mohanpur, West Tripura within the jurisdiction of Mohanpur Electrical Division(Partial Trunking Basis).**

**NIT NO. DGM/ED-MNP/2024-25/06, Dated –22-01-2025**

**INTRODUCTION**

The work is Depositing nature related to extension of HT/LT line including construction of 1X200 KVA, 11/0.433 KV Sub-Station for providing 3-Phase service connection to Jawahar Navodaya Vidyalaya Mohanpur, West Tripura within the jurisdiction of Mohanpur Electrical Division and necessary fund amounting of Rs.12,01,895.00/- (Rupees twelve lac one thousand eight hundred ninety five) only deposited by concerned requisitioning Authority vide No. GMR/A-26585 dated 09/12/2024. The NIT is prepared for approval before taking up the work towards wide tendering (Partial Trunking Basis).

**SCOPE OF WORK**

Scope of work covered under the package that includes supply of materials, storage, insurance, handling, laying, testing, erection, construction of structural steel and other hardware as per Bidding Schedule and Engineering requirements for total completion of the work under Mohanpur Electrical Division.

**1.0 Scope of work given above is only indicative. The detailed scope has been described in the schedule of Work attached with this bidding document.**

**2.0**

- |    |   |    |  |
|----|---|----|--|
| 1. | Bidding Document last date of selling                     | :- | 28 /01/2025 (02:00 PM).  |
| 2. | Bid Receipt last date and time                            | :- | 30/01/2025 (02:00 PM).   |
| 3. | Bid opening date and time (i) Technical bid               | :- | 30/01/2025 ; 03:00 pm.( if possible)   |
|    | (ii) Price bid  | :- | 30/01/2025 ; 03:00 pm.( if possible)   |
| 4. | Cost of Bidding document                                  | :- | Rs 1500.00 (Cost of bid should be deposit in Demand Draft in favoring of the Dy. General Manager, ED -Mohanpur, TSECL) |
| 5. | Estimated Cost  | :- | Rs. 3, 04, 242.00(Including GST)   |
| 6. | Bid Guarantee (EMD to be deposited With the Bid document) | :- | Rs . 6,085.00  |
| 7. | Dropping places   | :- | Office of the Deputy General Manager Mohanpur Electrical Division.   |
| 8. | Completion Period   | :- | 45 (forty five) days   |



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**2.0 QUALIFYING REQUIREMENTS FOR BIDDERS:**

*To be qualified to bid for the package, the bidder shall have to meet the following minimum criteria:*

2.1 The bidder must have successfully executed at least 1.0 Km HT and & 1X100 KVA Substation which must be in satisfactory operation for one year as on the date of bid opening.

2.2 The minimum average annual turnover of the bidder for the last three years shall be not less than 30 % of the estimated cost put to tender.

2.3 Bids may be submitted by an individual firm ( proprietorship entity ) with relevant experience or registered partnership firm or companies registered under companies act or joint ventures of registered firms/companies/ proprietorship entity with two constituents only as one of the following.

2.3.1. A single firm of proprietorship entity or registered partnership firms or companies registered under Companies Act, which meets anyone or both the requirements, indicated in Para 2.1 and 2.2 (Mandatory).

2.3.2. A joint venture of two registered firms/companies/ proprietorship entity, wherein each registered firm/company/ proprietorship entity shall meet any one or both the requirements of Para 2.1 & 2.2 above.

2.4. The figures of average annual turnovers for each registered firm/company/ proprietorship entity shall be added together to determine the bidder's compliance with the minimum average annual turnover requirement for the package as given at Para **2.2 above**.

2.5. In case of joint ventures any of the registered firms/companies/ proprietorship entities shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract including receipt of payment shall be done exclusively through him. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.

2.6 All partners of Joint Venture shall be **liable jointly and individually / severally** for the execution of the contract in accordance with the contract terms. A copy of the agreement of joint venture partners having such provision shall be submitted with the bid.

**2.7 Notwithstanding anything contained herein above, TSECL reserves the right to assess the “capacity and capability” of the bidder to execute the work.**

2.8 In addition to the mandatory requirements as specified in Para 2.1 & 2.2 (mandatory), the following criteria must need to be fulfilled for the Bidder/Lead Partner for this package.

2.9 The bidder shall furnish documentary evidence in support of qualifying requirement stipulated above.

**2.10 The bidder's offer must include the following documents as to make sustainable the qualifying requirement such as:**

- i. Successful **completion certificate** issued by an Engineer not below rank of Executive Engineer/Dy. General Manager in charge
- ii. Photocopy of **PAN card** issued by Income tax Dept., Govt. of India of bidder / all partners of joint venture.
- iii. Photocopy of Valid **Labour license** issued by Licensing Officer, Govt. of Tripura
- iv. Photocopy of Valid **Electrical License and Supervisory License** issued by Tripura Electrical Licensing Board



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- v. **Experience certificate** indicating same nature of work issued by an Engineer not below rank of Executive Engineer/Dy.General Manager/ Divisional Engg. in charge
- vi. Photocopy of Valid **GST Registration** certificate
- vii. Photocopy of valid professional tax clearance certificate.

2.11 Photocopies of all documents furnished shall be self-authenticated.

**2.12 TSECL reserves the right to check the originals, if required.**

3.0

The Bid Document complete with **general condition of contract, technical specification, schedule of quantities & drawings of equipment foundation & bill of materials for equipment support structures** etc. may be seen in the office of the Deputy General Manager, Mohanpur Electrical Division, Mohanpur, west Tripura on all working days during office hours up to the date fixed for sale of bid documents.

4.0 The bidder shall bear all **cost and expenses** associated with purchase and submission of its bid including post bid discussions, technical & other presentation etc., and **TSECL** will in no case be responsible or liable for those cost, regardless of the conduct or outcome of the bidding process.

5.0 The bidder shall furnish documentary evidence in support of the qualifying requirements stipulated above along with their bid. Bid received without such documents shall be summarily rejected.

6.0 Tender will be received only at Office of the Concerned **Deputy General Manager, TSECL**, up to 1.00 pm. The pre-qualification bid and technical Bid shall be opened at 3.30 pm on the stipulated time if possible; otherwise the pre-qualification shall be opened on the next working day. Only the successful bidders in pre-qualification and technical bid segment shall be allowed for their commercial bid offer. Tender without earnest money (to be deposited in the form of, Bank Draft on any nationalized / schedule Bank payable at Agartala) shall be liable for rejection. No tender submitted or received through post after the fixed date and time will be entertained.

(In case the above scheduled last date for receiving of tender against any N.I.T. is declared holiday by the State Government tender(s) in response to the said N.I.T. will be received up to 1.00 pm on the next working day keeping other clauses of N.I.T. Unchanged)

7.0 The bidder shall bear all cost and expenses associated with purchase and submission of its bid including post bid discussions, technical & other presentation etc., and TSECL will in no case be responsible or liable for those cost, regardless of the conduct or outcome of the bidding process.

8.0 The bidder shall furnish documentary evidence in support of the qualifying requirements stipulated above along with their bid. Bid received without such documents shall be summarily rejected.

9.0 Tender form can be downloaded from the website [www.tsecl.gov.in](http://www.tsecl.gov.in) and the cost of the tender form shall be as in 1.0 of this section which shall be deposited in the form of Demand Draft on any Nationalized/Scheduled bank payable at Agartala in favour of the Deputy General Manager, Mohanpur Electrical Division, West Tripura.

10.0 The downloaded tender document in undamaged condition shall be signed by the tenderer/ bidder on all pages and will be enclosed with the commercial bid. All corrections to rates and items in the tender should be initialled by the tenderer/bidder. Every pages of the rate schedule be signed in full by the tenderer/bidder. The



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bidders/tenderers must quote their rates in the prescribed price bidding schedule in the bidding document.

11.0 Canvassing in connection with tenders / uncalled for remarks by the tenderer will lead the tender to summarily reject.

12.0 Power of Attorney, if given to authorized signatory for signing the Contract Agreement, shall be made in an INDIA NON-JUDICIAL STAMP OF Rs.100.00 (Rupees one hundred) only.

13.0 The bidding documents are not transferable and cost of bidding document is not refundable under any circumstances.

14.0 **OWNER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

TSECL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action.

15.0 The bidder shall be required to deposit **earnest money/Bid Guarantee** amounting **Rs.6, 085.00 (Rupees six thousand eighty five) only** in the shape of **demand draft or D-Call** favouring **Dy. General Manager, ED -Mohanpur, TSECL**, or any schedule Bank payable at Agartala, West Tripura along with the bid in a separate sealed envelope.

The successful bidder shall be required to furnish a **Contract Performance Guaranty @ 10% of the total contract price in the shape of Demand Draft favouring TSECL** payable at Agartala, West Tripura or in the shape of Bank guarantee favouring **Tripura State Electricity Corporation Limited, Corporate Office, Bidyut Bhavan**, North Banamalipur, Agartala on any Public Sector / Schedule Indian Bank on award of the contractor 50% of Contract Performance Guarantee in the shape of BANK Guarantee as per normal format and the balance 50% amount will be deducted from running bills on pro data basis or minimum 10% of balance amount whichever is higher from each bill till full realization of Contract Performance Guarantee, **EMD deposited during bid will be merged / adjustable with eligible Contract Performance Guarantee.**

**BID NOT ACCOMPANIED WITH REQUISITE BID EARNEST MONEY IN A SEPARATE SEALED ENVELOPE SHALL NOT BE ENTERTAINED AND SHALL BE RETURNED TO THE BIDDER WITHOUT BEING OPENED.** The bidding documents are not transferable and cost of bidding document is not refundable under any circumstances.

16.0. The original Bidding document shall be signed by the bidder(s) on all pages and will be enclosed with the **COMMERCIAL / PRICE** bidding schedule. All corrections to rates and items in the Bid(s) should be initialled by the Bidder(s). Every Page of the **Schedule Price Bidding** shall be signed in full by the Bidder(s).

17.0 The Bidder(s) shall have to give a **DECLARATION** that he/they have gone through the details of the Bidding Document(s) as per format appended with the Bidding Document.

18.0 **Address for Communication / Purchase of Bid Document.**

**Deputy General Manager,  
Mohanpur Electrical Division,  
West Tripura District.  
Tripura State Electricity Corporation Limited,  
Mobile no.-6033131787**



## **SECTION-II**

### **INSTRUCTION TO BIDDERS**

#### **1. GENERAL INSTRUCTIONS**

The bidders are to satisfy themselves by actual site visit to the site of work as regards the prevailing condition of approaches, transportation facilities, availability of labourers and availability of materials etc. before submission of bid. No claim or excuse on this account will be entertained at any stage later on.

#### **2 COST OF BIDDING**

The Bidder shall bear all the costs and expenses associated with preparation and submission of its Bid including post-bid discussions, technical and other presentation etc. and the TSECL shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

#### **3. THE BIDDING DOCUMENT**

##### **3.1. CONTENTS OF BIDDING DOCUMENTS**

The goods and services required, bidding procedures and contract terms are as prescribed in the Bidding Documents.

4. In addition to the Invitation for Bids, the Bidding Documents is a compilation of the following sections:

- a. **Instructions to Bidders**
- b. **General Conditions of Contract**
- c. **Price Schedules.**

#### **5. UNDERSTANDING OF BIDDING DOCUMENTS**

A prospective Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents and fully inform himself as to all the conditions and matters which may in any way affect the scope of work or the cost thereof. Failure to furnish all information required by the Bidding Documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect shall be at the Bidder's risk and may result in the rejection of its Bid.

#### **6. CLARIFICATIONS ON BIDDING DOCUMENTS**

6.1. If prospective Bidder finds discrepancies or omissions in the specifications and documents or is in doubt as to the true meaning of any part or requires any clarification on Bidding Documents should make the request / notify the tender inviting authority of TSECL in writing. The concerned authority of TSECL shall respond in writing to any request for such clarification of the Bidding Documents, which it receives not later than fifteen (15) days prior to the deadline for submission of bids stipulated in tender notice. Written copies of the response (including an explanation of the query but without identifying its source) shall be sent to all prospective bidders who purchased the tender document.

7. Verbal clarification and information given from any offices of TSECL or his employee(s) or his representative (s) shall not in any way be binding on TSECL.

#### **8. PREPARATION OF BIDS**

##### **8.1. LANGUAGE OF BID**

The Bid prepared by the Bidders and all correspondence and documents relating thereto, exchanged by the Bidder and TSECL, shall be written in English language, provided that any printed literature furnished by the bidder may be written in another language so long as accompanied by an English translation of its pertinent passages. Failure to comply with this may disqualify a bid. For purposes of interpretation of the bid, the English translation shall govern.





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**9. LOCAL CONDITIONS**

9.1. It shall be imperative on each bidder to fully inform him of all local conditions and factors, which may have any effects on the execution of the contract covered under these documents and specifications. The Owner shall not entertain any request for clarification from bidders, regarding such local conditions.

9.2. It must be understood and agreed that such factors as above have properly been investigated and considered while submitting the proposals. No claim for financial adjustment to the Contract awarded under these specifications and documents shall be entertained by TSECL. Neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by TSECL.

**10. DOCUMENTS COMPRISING THE BID**

The Bid shall be submitted in **2 (two) parts** in **separate sealed envelopes** properly **superscripting tender No., name of work and bid opening date** as follows:

**Part-I: Bid Guarantee**

Containing **Cost of Bid in case of download** & Bid earnest money as per the stipulations of the Bid Documents in a separate sealed envelopes along with following as pre qualification (PRE BID) in a separate sealed envelopes.

- I. Successful completion certificate issued by an Engineer not below rank of Executive Engineer/Dy.General Manager/ Divisional Engg. in charge
- II. Photocopy of PAN card issued by Income tax Dept., Govt. of India of bidder / all partners of joint venture.
- III. Photocopy of Valid Labour license issued by Licensing Officer, Govt. of Tripura
- IV. Photocopy of Valid Electrical License & Supervisory Licence issued by Tripura Electrical Licensing Board
- V. Experience certificate indicating same nature of work issued by an Engineer not below rank of Executive Engineer/Dy.General Manager/ Divisional Engg. in charge
- VI. Photocopy of **GST Registration certificate**
- VII. The minimum average annual turnover of the bidder for the last three years shall be not less than 30 % of the estimated cost put to tender.
- VIII. Copy of the balance sheet of the bidder (awaited by the Charter Accountant) with auditor's certificate in support of annual turnover i/e/ IT return certificate for the last 3(three) years of 2020-21, 2021-22 & 2022-23
- IX. Any bidder who has been debarred/black listed by any central(GOI)/ State Govt. owned power utility, for works of similar type during last three years for whatever reason and thereby shall stand disqualified automatically at the very pre-qualification stage. Therefore, the bidder submitting the tender documents liable to enclose a "Declaration" to this effect with due certification by "NOTARY" depicting full name & designation. ( As per format, annexed in bid document)
- X. Notwithstanding anything stated above, TSECL reserve the right access the bidder's capability and capacity to perform the contract satisfactorily should be circumstance warrant such assessment in the overall interest of TSECL.
- XI. Price bid of only those bidders shall be opened who qualified based on the specified qualifying requirement after scrutiny of details/ documents furnished by them and found to be techno-commercial responsive.



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**Part-II: Price Bid**

- I. The price schedule as per the format indicated in the Bid Price Schedule. The price should be quoted both in figures and words. Rate should be quoted including GST.
- II. Price break-up for supply, civil work and erection work should attached as per Annexure, along with the price bid
- III. The price should be quoted in the schedule given in the bid document purchased from the owner rate should be quoted in Rs. in amount and also quote total amount.
- IV. The bid document duly signed by the contractor or persons authorized by the bidder in all pages shall be attached with this part. This will form a part of the agreement with the successful bidder.

**11. ALTERNATE PROPOSALS**

Based on their experience, capabilities, patented research, and development work etc., the bidder may, in addition to a base proposal, offer alternate proposal(s), for reason of economy or better performance. But in all such case, the base proposal shall be strictly in line with the requirements as stipulated in the Bidding Documents and only such base proposal shall be considered for the purpose of evaluation of the proposals. Should the Bid by the successful Bidder contain such alternate proposal then the Owner, at his discretion, may accept the same at the time of award of Contract.

**12. PRICE BASIS AND PAYMENTS**

12.1 The bidders shall quote in their proposal price for the entire Scope of Work covered under the Technical Specification as required in the Bid Proposal Sheets on a base price plus adjustment basis as per clause 33.1 & 2 of section – III.

12.2 All price components shall not be subjected to any adjustment, whatsoever, during the execution of the contract other than the price adjustment quoted at the time of tender.

12.3 Bidder shall indicate Bid prices in Indian Rupees only.

**13. TAXES AND DUTIES**

13.1 **All custom duties, excise duties, sales taxes , service charge and other levies payable by the bidders in respect of the transactions between the bidder and their vendors/sub-suppliers while procuring any components, sub-assemblies, raw materials and equipment shall be included in the bid price and no claim on this behalf shall be entertained by TSECL .**The bid price shall also be inclusive of excise duty and central/ local sales tax and other levies in respect of the transactions solely between TSECL and the bidder under the Contract. The local sale tax as applicable shall be clearly indicated.

13.2 Concessional Sales Tax declaration forms, as admissible, shall be issued to the Contractor, on request, for all items (as identified in the price schedule of the Bid) to be supplied directly by the Contractor as well as for the items to be supplied by the Sub- suppliers as sale-in-transit.

13.3 Sales Tax on goods incorporated in the Works:

The bidder shall include the Sales Tax on Works Contract, Turnover Tax or any other similar taxes under the Sales Tax Act, as applicable in their quoted bid price and TSECL shall not bear any liability on this account. TSECL shall, however, deduct such taxes at source as per rule and issue TDS Certificate to the Contractor.

14. As regards the Income Tax surcharge on Income Tax and other corporate taxes, the Bidder shall be responsible for such payment to the concerned authorities.

14.1 Service tax, as applicable on services rendered shall be responsibility of the bidder. TSECL shall not bear any liability on this account.





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**15. INSURANCE**

The bidder's insurance liabilities pertaining to the Scope of Work is detailed out in clauses titled insurance in General Terms & Conditions of Contract and in Erection Conditions of Contract. Bidder's attention is specifically invited to these clauses. The bid price shall include all the cost in pursuance of fulfilling all the insurance liabilities under the Contract.

**16. BID GUARANTEE**

16.1 The Bidder shall furnish, as part of its Bid, earnest money for an amount as specified in the Notice Inviting Tender (NIT) in the shape of **demand draft / D-Call** in favoring **Dy. General Manager, ED-Mohanpur, TSECL** on any schedule Bank payable at Agartala, West Tripura.

16.2 The earnest money is required to protect TSECL against the risk of Bidder's conduct, which would warrant the earnest money forfeiture pursuant to Para 18.7.

16.3 The earnest money shall be deposited in Indian rupees only.

16.4 Any bid not secured in accordance with para 18.1 and 18.3 above shall be rejected by TSECL as non-responsive.

16.5 The earnest money of the unsuccessful Bidders shall be discharged / returned as promptly as possible as but not later than 60 days after the expiration of the period of bid validity prescribed by the Owner.

16.6 The earnest money of the successful Bidder will be adjusted with the performance guarantee required to be furnished on award of contract as per clause 8.0 of Section – I.

16.7 The earnest money shall be forfeited -

- I. If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the bid form; or
- II. In case of a successful Bidder fails:
  - i) to sign the contract; or ii) to furnish the performance guarantee.

16.8 No interest shall be payable by TSECL on the above earnest money.

**17. PERIOD OF VALIDITY OF BIDS**

17.1 Bids shall remain valid for 6 (six) calendar months after the date of bid opening prescribed by TSECL, unless otherwise specified in this document. A Bid valid for a shorter period shall be rejected by TSECL as non-responsive.

17.2 In exceptional circumstances, TSECL may solicit the Bidder's consent to an extension of the period of Bid validity. The request and the response thereto shall be made in writing (including phone or fax). The Earnest money provided under clause 5.0 of Section – I shall also be retained upto the extended period. No interest shall be payable by TSECL for retaining the earnest money upto the extended period. A Bidder may refuse the request without forfeiting the earnest money deposited by him. A Bidder granting the request shall not be required or permitted to modify his Bid.

**SUBMISSION OF BIDS**

**18. FORMAT OF BID**

18.1 The Bidder shall prepare ONE copies of the Bid, clearly marking the "Original Bid"

18.2 The "original" and "copy of bid" shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized by the bidder to sign the bidding document. The letter of authorization shall be indicated by written power-of-attorney accompanying the Bid. All pages of the Bid, except for un-amended printed literature, shall be initialed by the person or persons signing the Bid.

18.3 The Bid shall be submitted in two parts as described in clause No. 8 of Section – II.



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18.4 The bid shall contain the bid document purchased from the owner duly signed by the Bidder or persons authorized by the bidder in all pages which will form a part of agreement with the successful bidder.

18.5 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

**19. SIGNATURE OF BIDS**

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

19.2 Bid by a partnership must be furnished with full names of all partners and be signed with the partnership name, followed by the signature(s) and designation(s) of the authorized partner(s) or other authorized representative(s).

19.3 Bids by Corporation / Company must be signed with the legal name of the Corporation/Company by the President, Managing Director or by the Secretary or other person or persons authorized to Bid on behalf of such Corporation / Company in the matter.

**19.4 A Bid by a person who affixes to his signature the word ‘President’, ‘Managing Director’, ‘Secretary’, ‘Agent’, or other designation without disclosing his principal shall be rejected.**

19.5 Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the Bid.

19.6 The Bidder’s name stated on the proposal shall be exact legal name of the firm.

19.7 Bids not conforming to all the above requirements of Para 20 above may be disqualified.

**20. SEALING AND MARKING OF BIDS**

20.1 The Bidders shall seal the “original” in an inner and an outer envelope, duly marking the envelopes as “Original”

20.2 The inner and outer envelopes shall be:

- a) Addressed to TSECL at the following address:

**The Deputy General Manager  
Mohanpur Electrical Division,  
Mohanpur, West Tripura.**

- b) Bear (the NIT No., Name of work & date of opening).

The inner envelope shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared “late” or “rejected”.

20.3 If the outer envelope is not sealed and marked as required by para 22.2 (b), TSECL shall assume no responsibility for the Bid’s misplacement or premature opening.

20.4 The earnest money must be submitted in a separate sealed envelope.



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**AWARD OF CONTRACT**

**21. AWARD CRITERIA**

21.1 TSECL shall award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as technically acceptable and lowest evaluated Bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. TSECL shall be the sole judge in this regard.

21.2 Further, TSECL reserves the right to award separate Contracts to two or more parties in line with the terms and conditions specified in the accompanying Technical Specifications.

**22. OWNER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS**

TSECL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action.

**23. NOTIFICATION OF AWARD**

23.1 Prior to the expiration of the period of bid validity and extended validity period, if any, TSECL shall notify the successful Bidder in writing by registered letter or by telex or FAX, to be confirmed in writing by registered letter, that his Bid has been accepted.

23.2 The Notification of Award/Letter of Award shall constitute the formation of the Contract.

23.3 Upon the successful Bidder's furnishing of Contract Performance Guarantee pursuant to Clause 8.0 of section – I. TSECL shall promptly notify each unsuccessful Bidder and will discharge its bid guarantee, pursuant to Clause 18 (Section – II).

**24. SIGNING OF CONTRACT**

24.1 At the same time as TSECL notifies the successful Bidder that its bid has been accepted, TSECL shall send the Bidder the detailed Letter of Award.

24.2 Within 15 (fifteen) days of receipt of the detailed Letter of Award, the successful Bidder shall convey in writing unconditional acceptance of the Letter of Award and shall attend the respective office of TSECL for signing the contract agreement.

**25. CONTRACT PERFORMANCE GUARANTEE**

25.1 As a Contract Performance Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a contract Performance Guarantee in the shape of **demand draft** or any schedule Bank payable at Agartala, West Tripura **or Bankers Cheque from the SBI** Mohanpur in favour of Tripura State Electricity Corporation Limited on any schedule bank payable at Agartala, West Tripura **or** in the shape of **Bank Guarantee** from a Public Sector / Scheduled Indian Bank having paid up capital (net of any accumulated losses) of Rs.100 Crores or above (the latest annual report of the Bank should support compliance of capital adequacy ratio requirement) in the form attached as annexure – I in favour of TRIPURA STATE ELECTRICITY CORPORATION LIMITED. The guarantee amount shall be equal to **ten percent (10%)** of the Contract Price and it shall guarantee the faithful performance of the Contract in accordance with the terms and conditions specified in these documents and specifications. The earnest money deposited at the time of tender shall be adjusted with the contract performance guarantee.



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**SECTION-III**

**GENERAL TERMS & CONDITIONS OF CONTRACT**

**A. INTRODUCTION**

**1.0 DEFINITION OF TERMS**

1.1 **‘The Contract’** means the agreement entered into between Tripura State Electricity Corporation Limited and Contractor as per the Contract Agreement signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

1.2 **‘Owner’** shall mean **TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL)** and shall include their legal representatives, successors and assigns.

1.3 **‘Contractor’** or **‘Manufacturer’** shall mean the Bidder whose bid shall be accepted by TSECL for award of the Works and shall include such successful Bidder’s legal representatives, successors and permitted assigns.

1.4 **‘Sub-contractor’** shall mean the person named in the Contract for any part of the Works or any person to whom any part of the Contract has been sublet by the Contractor with the consent in writing of the owner’s Engineer in charge of the work and shall include the legal representatives, successors and permitted assigns of such person.

1.5 **‘Consulting Engineer’/‘Consultant’** shall mean any firm or person duly appointed as such from time to time by TSECL .

1.6 The terms **‘Equipment’**, **‘Stores’** and **‘Materials’** shall mean and include equipment, stores and materials to be provided by the Contractor under the Contract.

1.7 **‘Works’** shall mean and include the furnishing of equipment, labour and services, as per the Specifications and complete erection, testing and putting into satisfactory operation including all transportation, handling, unloading and storage at the Site (work site) as defined in the Contract.

1.8 **‘Specifications’** shall mean the **Specifications and Bidding Documents forming a part of the Contract and such other schedules and drawings as may be mutually agreed upon.**

1.9 **‘Site’** shall mean and include the land and other places on, into or through which the works and the related facilities are to be erected or installed and any adjacent land, paths, street or reservoir which may be allocated or used by TSECL or Contractor in the performance of the Contract.

1.10 The term **‘Contract Price’** shall mean the item wise price / lump-sum price quoted by the Contractor in his bid with additions and/or deletions as may be agreed and incorporated in the Letter of Award, for the entire scope of the works.

1.11 The term **‘Equipment Portion’** of the Contract price shall mean the ex-works value of the equipment.

1.12 The term **‘Erection Portion’** of the Contract price shall mean the value of field activities of the works including erection, testing and putting into satisfactory operation including successful completion of performance and guarantee tests to be performed at Site by the Contractor including cost of insurances.

1.13 **‘Manufacturer’s Works’** or **‘Contractor’s Works’**, shall mean the place of work used by the manufacturer, the Contractor, their collaborators/associate or sub-contractors for the performance of the Contract.

1.14 **‘Inspector’** shall mean TSECL or any person nominated by TSECL from time to time, to inspect the equipment; stores or Works under the Contract and/or the duly authorized representative of TSECL.

1.15 **‘Notification of Award of Contract’/‘Letter of Award’/‘Telex of Award’** shall mean the official notice issued by TSECL notifying the Contractor that his bid has been accepted.



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1.16 **‘Date of Contract’** shall mean the date on which Notification of Award of Contract/Letter of Award/Telex of Award has been issued.

1.17 **‘Month’** shall mean the calendar month. ‘Day or ‘Days’, unless herein otherwise expressly defined, shall mean calendar day or days of 24 hours each.

A **‘Week’** shall mean continuous period of seven (7) days.

1.18 **“Writing”** shall include any manuscript, type written or printed statement, under or over signature and/or seal as the case may be.

1.19 When the words ‘Approved’, ‘Subject to Approval’, ‘Satisfactory’, ‘Equal to’, ‘Proper’, ‘Requested’, ‘As Directed’, ‘Where Directed’, ‘When Directed’, ‘Determined by’, ‘Accepted’, ‘Permitted’, or words and phrases of like importance are used, the approval, judgment, direction etc. is understood to be a function of TSECL.

1.20 **“Test on Completion”** shall mean such tests as prescribed in the Contract to be performed by the Contractor before the work is Taken Over by TSECL.

1.21 **‘Start Up’** shall mean the time period required to bring the equipment covered under the Contract from an inactive condition, when construction is essentially complete, to the state ready for trial operation. The startup period shall include preliminary inspection and checkout of equipment and supporting sub-system, initial operation of the complete equipment covered under the Contract to obtain necessary pre-trial operation data, perform calibration and corrective action, shut down, inspection and adjustment prior to the trial operation period.

1.22 **“Initial Operation”** shall mean the first integral operation of the complete equipment covered under the Contract with the sub-system and supporting equipment in service or available for service.

1.23 **‘Trial Operation’, ‘Reliability Test’, ‘Trial Run’, ‘Completion Test’** shall mean the extended period of time after the start up period. During this trial operation period, the unit shall be operated over the full load range. The length of Trial Operation shall be as determined by the Engineer of TSECL unless otherwise specified elsewhere in the Contract.

1.24 **‘Performance and Guarantee Test’** shall mean all operational checks and tests required to determine and demonstrate capacity, efficiency and operating characteristics as specified in the Contract Documents.

1.25 The term ‘Final Acceptance/Taking Over’ shall mean written acceptance of the Works performed under the Contract by TSECL, after successful commissioning/completion of Performance and Guarantee Tests, as specified in the accompanying Technical Specification or otherwise agreed in the Contract.

1.26 **“Commercial Operation”** shall mean the Conditions of Operation in which the complete equipment covered under the Contract is officially declared by TSECL to be available for continuous operation at different loads up to and including rated capacity. Such declaration by TSECL, however, shall not relieve or prejudice the Contractor of any of his obligations under the Contract.

1.27 **‘Guarantee period’/‘Maintenance Period’** shall mean the period during which the Contractor shall remain liable for repair or replacement of any defective part of the works performed under the contract.

1.28 **‘Latent Defects’** shall mean such defects caused by faulty designs, material or workmanship which cannot be detected during inspection, testing etc, based on the technology available for carrying out such tests.

1.29 **‘Drawings’, ‘Plans’** shall mean all:

- a) Drawing furnished by TSECL as a basis for Bid Proposals.
- b) Supplementary drawings furnished by TSECL to clarify and define in greater detail the intent of the Contract.



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c) Drawings submitted by the Contractor with his Bid provided such drawings are acceptable to TSECL.

d) Drawings furnished by TSECL to the Contractor during the progress of the Work; and

e) Engineering data and drawings submitted by the Contractor during the progress of the Work provided such drawings are acceptable to the owner's Engineer in charge of the work.

1.30 **"Codes"** shall mean the following including the latest amendments and / or replacement, if any:

a) A.S.M.E. Test Codes.

b) A.I.E.E. Test Codes.

c) American Society of Testing Materials Codes.

d) Standards of the Indian Standards Institutions.

e) I.E.E. standards.

f) I.E.C. standards.

g) Other Internationally approved standards and / or Rules and Regulations touching the subject matter of the Contract.

1.31 Words imparting 'Person' shall include firms, companies, corporation and association or bodies of individuals.

1.32 Terms and expressions not herein defined shall have the same meaning as are assigned to them in the Indian Sale of Goods Act (1930), failing that in the Indian Contract Act (1872) and failing that in the General Clauses Act (1897) including amendments thereof if any.

1.33 In addition to the above the following definitions shall also apply.

a) 'All equipment and materials' to be supplied shall also mean 'Goods'.

b) 'Constructed' shall also mean 'erected and installed'

c) 'Contract Performance Guarantee shall also mean 'Contract Performance Security'

## **2.0 USE OF THE CONTRACT DOCUMENTS AND INFORMATION**

The Contractor shall not communicate or use in advertising, publicity, sales releases or in any other medium, photographs or other reproduction of the Works under this contract, or descriptions of the site, dimensions, quantity, quality, or other information, concerning the Works unless prior written permission has been obtained from TSECL.

## **3.0 JURISDICTION OF CONTRACT**

The laws applicable to the Contract shall be the laws in force in India. The Courts of **Agartala** shall have exclusive jurisdiction in all matters arising under this Contract.

## **4.0 MANNER OF EXECUTION OF CONTRACT**

4.1 The contractor should attend the concerned office of TSECL within 15(fifteen) days from the date of issue of the Letter of Award to the Contractor for signing the contract agreement.

4.2 The Contractor shall provide for signing of the Contract, Performance Guarantee, appropriate power of attorney and other requisite materials.

4.3 The Agreement shall be signed in two originals and the Contractor shall be provided with one signed original and the rest shall be retained by TSECL.

4.4 The Contractor shall provide free of cost to TSECL all the engineering data, drawings, and descriptive materials submitted with the Bid, in at least six (6) copies to form a part of the contract immediately after issue of Letter of Award.





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**5.0 ENFORCEMENT OF TERMS**

The failure of either party to enforce at any time any of the provisions of this Contract or any rights in respect thereto or to exercise any option therein provided, shall in no way be construed to be a waiver of such provisions, rights or options or in any way to affect the validity of the Contract. The exercise by either party of any of its rights herein shall not prejudice either party from exercising the same or any other right it may have under the Contract.

**6.0 COMPLETION OF CONTRACT**

Unless otherwise terminated under the provisions of any other relevant clause, this Contract shall be deemed to have been completed on the date stipulated in the NIT.

**7.0 PROGRESS REPORTS AND PHOTOGRAPHS**

During the various stages of the Work in the pursuance of the Contract, the Contractor shall at his own cost submit periodic progress reports as may be reasonably required by the owner's Engineer in charge of the work with such materials as, charts, Bar Charts, photographs, test certificates, etc. Such progress reports shall be in the form and size as may be required by the owner's Engineer in charge of the work and shall be submitted in at least three (3) copies.

**8.0 TAKING OVER**

Upon successful completion of all the tests to be performed at Site on equipment furnished and erected by the Contractor, the owner's Engineer in charge of the work shall issue to the Contractor a **Taking over Certificate** as a proof of the final acceptance of the equipment. Such certificate shall not unreasonably be withheld.

**CONTRACT SECURITY AND PAYMENTS**

**9.0 CONTRACT PERFORMANCE GUARANTEE**

The Contractor shall furnish contract performance guarantee as specified in clause 7.0 of Section - I for the proper fulfillment of the Contract. Within fifteen (15) days of "Notice of Award of Contract."

**10.0 INSURANCE**

The Contractor at his cost shall arrange, secure and maintain all insurance as may be pertinent to the Works and obligatory in terms of law to protect his interest and interests of TSECL against all perils detailed herein. The form and the limit of such insurance as defined herein together with the under-writer in each case shall be acceptable to TSECL. However, irrespective of such acceptance, the responsibility to maintain adequate insurance coverage at all times during the period of Contract shall be of the Contractor alone. The Contractor's failure in this regard shall not relieve him of any of his contractual responsibilities and obligations. The insurance covers to be taken by the Contractor shall be in a joint name of TSECL and the Contractor. The Contractor shall, however, be authorized to deal directly with Insurance Company or Companies and shall be responsible in regard to maintenance of all insurance covers. Further the insurance should be in freely convertible currency.



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**11.0 DELAYS BY TSECL OR HIS AUTHORISED AGENTS**

In case the Contractor's performance is delayed due to any act on the part of TSECL or his authorized agents, then the Contractor shall be given due extension of time for the completion of the Works, to the extent of such act on the part of TSECL has

**12.0 PAYMENT**

12.1 The payment to the Contractor for the performance of the Works under the Contract will be made by TSECL as per the guidelines and conditions specified herein. Payment will be made on completion of all Works and on completion of warranty / guaranty period including fulfillment by the Contractor of all his liabilities under the Contract.

**12.2 Currency of Payment**

All payments under the Contract shall be in Indian Rupees only.

**12.3 Due Dates for Payments**

**i) 70% payment will be released after supply and erection.**

**ii) TSECL will make 30% payment after successful supply, erection and commissioning of the total line /work.**

**12.4 MODE OF PAYMENT**

Payment due on supply / erection of Equipment & materials / services shall be made by the owner's Engineer in charge of the work through account payee Banker's cheque.

**13.0 DEDUCTION FROM CONTRACT PRICE**

All costs, damages or expenses which TSECL may have paid, for which under the Contract, the Contractor is liable, will be deducted from the progressive bill of the contractor.

Regarding reasonableness or otherwise of the extension of time, the decision of TSECL shall be final.

**14.0 LIQUIDATED DAMAGES**

**14.1 For Equipment Portion & Erection portion**

14.1.1 If the Contractor fails to successfully complete the commissioning within the time fixed under the Contract, the Contractor shall pay to TSECL as liquidated damages and not as penalty a sum specified for each specified period of delays as below.

14.1.2 Equipment and materials will be deemed to have been delivered only when all its components, parts are also delivered. If certain components are not delivered in time, the equipment and materials will be considered as delayed until such time the missing parts are also delivered.

14.1.3 The liquidated damages for delay in complete the work in all respect and commissioning of all the equipments within the time fixed under the contract shall be 1% (one per cent) of the contract price of the whole work per week or part thereof.

**14.1.4 The total amount of liquidated damages for delay under the Contract will be subject to a maximum of 10% of the Contract price**

All demurrage, wharf age and other expenses incurred due to delayed clearance of the material or any other reason shall be to the account of the Contractor.



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**15.0 FORCE MEASURE**

15.1 Force majeure is herein defined as any cause which is beyond the control of the Contractor or TSECL as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:

- a. Natural phenomena, including but not limited to floods, droughts, earthquakes and epidemics;
- b. Acts of any Government including but not limited to war, declared or undeclared, quarantines and embargoes.

Provided the contractor shall within fifteen (15) days from the occurrence of such a cause notify TSECL in writing of such causes, acceptance of which will be given by TSECL after verification.

15.2 The Contractor or TSECL shall not be liable for delays in performing his obligations resulting from any force-majeure cause as referred to and /or defined above.

The date of completion will, subject to hereinafter provided, be extended by a reasonable time. In such case the contractor shall submit to owner's Engineer-in-charge of the work the time extension application as per Performa attached at ANNEXURE –II.

**16.0 SUSPENSION OF WORK**

TSECL reserves the right to suspend and reinstate execution of the whole or any part of the Works without invalidating the provisions of the Contract. Orders for Suspension or reinstatement of the Works will be issued by TSECL to the Contractor in writing. The time for completion of the works will be extended for a period equal duration of the suspension.

**17.0 CONTRACTOR'S DEFAULT**

17.1 If the Contractor shall neglect to execute the Works with due diligence and expertise or shall refuse or neglect to comply with any reasonable order given to him, in the Contract by the owner's Engineer in charge of the work in connection with the works or shall contravene the provisions of the Contract, TSECL may give notice in writing to the Contractor to make good the failure, neglect or contravention complained of. Should the Contractor fail to comply with the notice within thirty (30) days from the date of serving the notice, then and in such case TSECL shall be at liberty to employ other workmen and forthwith execute such part of the Works as the Contractor, may have neglected to do or if TSECL shall think fit, without prejudice to any other right he may have under the Contract to take the work wholly or in part out of the Contractor's hands and re-contract with any other person or persons to complete the works or any part thereof and in that event TSECL shall have free use of all Contractor's equipment that may have been at the time on the Site in connection with the works without being responsible to the Contractor for fair wear and tear thereof and to the exclusion of any right of the Contractor over the same, and TSECL shall be entitled to retain and apply any balance which may otherwise be due on the Contract by him to the Contractor, or such part thereof as may be necessary, to the payment of the cost of executing the said part of the Work or of completing the Works as the case may be. If the cost of completing of Works or executing a part thereof as aforesaid shall exceed the balance due to the Contractor, the Contractor shall pay such excess. Such payment of excess amount shall be independent of the liquidated damages for delay, which the Contractor shall have to pay if the completion of Works is delayed.

17.2 In addition, such action by TSECL as aforesaid shall not relieve the Contractor of his liability to pay liquidated damages for delay in completion of Works as defined in clause 13.0 of this Section.

Such action by TSECL as aforesaid, the termination of the Contract under this clause shall neither entitle the Contractor to reduce the value of the Contract Performance Guarantee nor the time thereof.



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The Contract Performance Guarantee shall be valid for the full value and for the full period of the Contract including guarantee period.

**18.0 TERMINATION OF CONTRACT ON OWNER'S INITIATIVE**

18.1 TSECL reserves the right to terminate the Contract either in part or in full due to reasons stipulated in the clause entitled "Contractor's Default." TSECL shall in such an event give fifteen (15) days notice in writing to the Contractor of his decision to do so.

18.2 The Contractor upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice.

18.3 If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies then unless TSECL is satisfied that the legal representatives of the individual contractor or of the proprietor of proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract, TSECL shall be entitled to cancel the Contract as to its uncompleted part without being in any way liable to payment of any compensation to the estate of deceased Contractor and/or to the surviving partners of the Contractor's firm on account of the cancellation of the Contract. The decision of TSECL that the legal representatives of the deceased Contractor or surviving partners of the Contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties.

**RESOLUTION OF DISPUTES**

**19.0 SETTLEMENT OF DISPUTES**

19.1 Any dispute(s) or difference (s) arising out of or in connection with the Contract shall, to the extent possible, be settled amicably between the parties.

19.2 If any dispute or difference of any kind whatsoever shall arise between the owner's Engineer in charge of the work and the Contractor, arising out of the Contract for the performance of the Works whether during the progress of the Works or after its completion or whether before or after the termination, abandonment or breach of the Contract, it shall, in the first place, be referred to and settled by the Additional General Manager of the concerned circle /General Manager as the case may be, who, within a period of thirty (30) days after being requested by either party to do so, shall give written notice of his decision to both the parties.

19.3 In the event the Contractor being dissatisfied with any such decision, the matters in dispute shall be referred to arbitration as hereinafter provided.

**20.0 ARBITRATION**

20.1 All disputes or differences in respect of which the decision, if any, of the Engineer has not become final or binding as aforesaid shall be settled by arbitration in the manner hereinafter provided.

20.1.1 The arbitration shall be conducted by an arbitrator, to be nominated by TSECL and he will be the sole arbitrator to conduct the arbitration.

20.1.2 The arbitration shall be conducted in accordance with the provisions of the Indian Arbitration & Reconciliation Act, 1996 or any statutory modification thereof. The venue of arbitration shall be at Agartala.



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20.2 The arbitrators may, from time to time with the consent of all the parties enlarge the time for making the award.

20.3 The arbitrator shall have full powers to review and/or revise any, decision, opinion, direction, certification or valuation of the Engineer in accordance with the Contract and neither party shall be limited in the proceedings before such arbitrators to the condense or arguments out before the Engineer for the purpose of obtaining the said decision.

20.4 During settlement of disputes and arbitration proceedings, both parties shall be obliged to carry out their respective obligations under the Contract

**21.0 RECONCILIATION OF ACCOUNTS**

The Contractor shall prepare and submit every six months, a statement covering payments claimed and the payments received vis-à-vis the works executed, for reconciliation of accounts with the owner's Engineer in charge of the work. The Contractor shall also prepare and submit a detailed account of Materials received from TSECL and utilized by him for reconciliation purpose.

**GUARANTEE & LIABILITIES**

**22.0 TIME – THE ESSENCE OF CONTRACT**

22.1 The time and the date of completion of the Contract as stipulated in the Contract by TSECL without or with modifications, if any, and so incorporated in the Letter of Award, shall be deemed to be the essence of the Contract. The Contractor shall so organize his resources and perform his Work as to complete it not later than the date agreed to.

22.2 The Contractor shall submit a detailed **BAR CHART / PERT NETWORK** consisting of adequate number of activities covering various key phases of the Work such as design, procurement, manufacturing, shipment and field erection activities within fifteen (15) days of the date of Notice of Award of Contract. This Bar Chart shall also indicate the interface facilities to be provided by TSECL and the dates by which such facilities are needed. The Contractor shall discuss with TSECL for finalization and approval of the Bar Chart by TSECL. The agreed Bar Chart shall form part of the contract documents. During the performance of the Contract, if in the opinion of the owner's Engineer in charge of the work, proper progress is not maintained, suitable changes shall be made in the Contractor's operations to ensure proper progress without any cost implication to TSECL. The interface facilities to be provided by TSECL in accordance with the agreed Bar Chart shall also be reviewed while reviewing the progress of the Contractor.

22.3 Based on the agreed Bar Chart fortnightly reports shall be submitted by the Contractor as directed by the owner's Engineer in charge of the work.

22.4 Subsequent to the finalization of the Bar Chart, the Contractor shall make available to the owner's Engineer in charge of the work a detailed manufacturing programme in line with the agreed Contract Bar Chart. Such manufacturing programme shall be reviewed, updated and submitted to the owner's Engineer in charge of the work once in every month thereafter.

22.5 The above Bar Charts/manufacturing programme shall be compatible with TSECL computer environment and furnished to TSECL on such media as may be desired by TSECL.

**22.6 GUARANTEE:-**

The Contractor shall warrant that the equipment shall be new, unused and in accordance with the contract documents and free from defects in material and workmanship for a period of **twelve (12) calendar months commencing immediately upon the satisfactory commissioning**. The Contractor's liability shall be limited to the replacement of any defective parts in the equipment of his own manufacture or those of his sub-



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contractors under normal use and arising solely from faulty design, materials and/or workmanship provided always that such defective parts are repairable at the site and are not in the meantime essential in the commercial use of the equipment. Such replaced/defective parts shall be returned to the Contractor unless otherwise arranged. No repairs or replacement shall normally be carried out by owner's Engineer in charge (**Deputy General Manager / Senior Manager**) of the work when the equipment is under the supervision of the Contractor's supervisory engineer.

**22.7** In the event of any emergency, where in the judgment of the owner's Engineer in Charge of work, delay would cause serious loss or damages, repairs or adjustment may be made by him or a third party chosen by him without advance notice to the Contractor and the cost of such work shall be paid by the Contractor. In the event such action is taken by the **Deputy General Manager / Senior Manager** in Charge of work, the Contractor shall be notified promptly and he shall assist wherever possible in making necessary corrections. This shall not relieve the Contractor of his liabilities under the terms and conditions of the Contract.

**22.8** If it becomes necessary for the Contractor to replace or renew any defective portions of the Works, the provision of this clause shall apply to portion of the Works so replaced or renewed until the **expiry of Twelve (12) months** from the date of such replacement or renewal. If any defects are not remedied within a reasonable time, the **Deputy General Manager / Senior Manager** in Charge of work may proceed to do the work at the Contractor's risk and cost, but without prejudice to any other rights which TSECL may have against the Contractor in respect of such defects.

**22.9** The repaired or new parts shall be furnished and erected free of cost by the Contractor. If any repair is carried out on his behalf at the site, the Contractor shall bear the cost of such repairs.

**22.10** The cost of any special or general overhaul rendered necessary during the maintenance period due to defects in the equipment or defective work carried out by the Contractor shall be borne by the Contractor.

**22.11** The acceptance of the equipment by the **Deputy General Manager / Senior Manager in Charge of work** shall in no way relieve the Contractor of his obligation under this clause.

**22.12** In the case of those defective parts, which are not repairable at site but are essential for the commercial operation of the equipment, the Contractor and the Owner's Engineer in Charge of work shall mutually agree to a programmed of replacement or renewal, which shall minimize interruption to the maximum extent in the operation of the equipment.

**22.13** At the end of the guarantee period, the Contractor's liability ceases except for latent defects. For latent defects, the Contractor's liability as mentioned in clause nos. 14.1 through 14.7 above shall remain till the end of 5 years from the date of commissioning.

In respect of goods supplied by sub-contractors to the Contractor, where a longer guarantee (more than 12 months) is provided by such sub-contractor, TSECL shall be entitled to the benefits of such longer guarantee.

**22.14** The provisions contained in this clause shall not be applicable:

- a) If TSECL has not used the equipment according to the generally approved industrial practice and in accordance with the conditions of operations specified and in accordance with operating manuals, if any.
- b) In cases of normal wear and tear of the parts to be specifically mentioned by the Contractor in the offer.





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## **23.0 INSPECTION AND TESTING OF EQUIPMENTS / MATERIALS**

**23.1 All equipment's / materials shall be dispatched by the contractor only after issuance of 'Materials Inspection Clearance Certificate (MICC)' by the inspecting officer / team of TSECL. Waiver of inspection may be done by TSECL in special circumstances with deduction of inspection cost @3% of value of materials for which inspection to be waived. In that case bidder should submit the routine Test certificates of Manufacture which shall be the basis for acceptance of such materials by TSECL. No such materials will be accepted without Test Certificate.**

**23.2** After manufacturing or at the stage of dispatch of equipments / materials the contractor shall give intimation to the owner's Engineer in charge of the work for conducting inspection of equipments / materials at manufacture's works or at recognized testing laboratories to be arranged by the contractor. **The intimation shall be made at least 15(fifteen) days before the equipments / materials become ready for dispatch.**

**23.3** Testing of equipments / materials as specified above shall be conducted at the risk and cost of the contractor. **The contractor shall also bear the to and fro travelling, food and lodging charges of the inspecting officer / team of TSECL.**

**23.4** Testing of equipment/materials may be waived on request of the contractor/agency, if TSECL authority felt that such waiver of inspection is absolutely necessary for early completion of work subject to submission of test certificate of manufacturer or authorized testing laboratory. In this situation an amount @ 3% of materials cost (inspection to be waived) as inspection charge will be recovered from the bill.

## **24.0 EXTENSION OF TIME**

**24.1** TSECL may consider to **grant time extension** for completion of the work if it is felt absolutely essential on fulfillment of following conditions by the Contractor:-

- a)** The contractor must apply to the Engineer-In-charge in writing for extension of time so required justifying the necessity.
- b)** Such application must state **the grounds** which hindered the contractor in the execution of the work within the time as stipulated in the contract document.
- c)** Such application must be made within 30 days of the date on which such hindrance had arisen.
- d)** The **Engineer-in charge** must be of the opinion that the grounds shown for the extension of time are reasonable and without extension of such time completion of the work is practically impossible.

**24.2** **The Engineer-In- Charge(Deputy General Manager)** will have full powers, but the orders on the application of the Contractor accepted by the Authorities higher than the Engineer-In-Charge shall be issued by him only after written approval from the concerned authority higher than Engineer-In-Charge.

**24.3** The opinion of the **Engineer- in- charge (Deputy General Manager)**, whether the grounds shown for the time are or are not reasonable, is final. If the **Engineer- in- charge** is of the opinion that the grounds shown by the supplier/ contractor are not reasonable and declines to grant extension to time, the supplier/contractor cannot challenge.



**SECTION – IV**

**TECHNICAL SPECIFICATION SECTION**

**Technical Specification**

Sl no	Particulars
A	TECHNICAL SPECIFICATION OF OUTDOOR TYPE, POLE/WALL MOUNTED 11 KV, HT METERING PANEL (BOX) WITH CT-PT COMBINED UNIT
B	TECHNICAL SPECIFICATION OF EARTHING AND EARTHING G.I PIPE
C	TECHNICAL SPECIFICATION OF GALVANIZED IRON PIPES
D	TECHNICAL SPECIFICATION OF HEXAGONAL MS BOLTS & NUTS



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**A. OUTDOOR TYPE, POLE/WALL MOUNTED 11 KV, HT METERING PANEL (BOX) WITH CT-PT COMBINED UNIT**

**1.0 Scope:**

This specification covers supply, design, manufacture, packing, delivery at worksite, installation and commissioning of outdoor type pole/wall mounted 11 KV, 3-phase, metering cubical panel and CT & PT combined unit pole mounted type suitable for outdoor installation.

The material offered shall conform to relevant standard and high quality and workmanship capable to perform continuous and satisfactory operations in the actual service conditions at site.

**2.0 Service conditions:**

Climate Moderately hot and humid tropical climate, conducive to rust and fungus growth.

**3.0 Design and standard:**

The metering panel shall be made of steel sheet of minimum thickness of 2(two) mm duly painted (Siemens grey) with weather / water proof paint, shall be powder coated, have doors with locking system and necessary fitting arrangement to mount on pole / wall. The panel shall have Digital ammeter, Digital Voltmeter and LED indication lamps. There shall be provision for necessary cable entry, terminations, connections with sufficient space and arrangements to install 3 phase, 11 KV, HT Meter.

The metering panel and combined current & potential transformer unit shall be suitable for outdoor installation and withstand tropical heat, rain, etc.

**3.1 Design and construction of combined current & potential transformers unit :**

- i. The combined current & potential transformers unit and accessories covered by this specification shall comply with the requirement of the latest edition of the following standards unless otherwise stated in this specification.
  - a. IS:16227 (Part-1 to 4) : Specification for Instrument Transformers.
  - b. IS:2099 & IS:5621 : Specification for HV Porcelain bushings.
- ii. The combined current & potential transformers shall be complete in all respects and shall conform to the modern practice of design and manufacture and shall be of low Reactance outdoor type, three phase, 50 Hz, self cooled with shaded porcelain bushing suitable for operation under the service conditions as specified suitable for outdoor operation.
- iii. The maximum permissible temperature rise of the combined current & potential transformer winding when carrying a primary current equal to the rated continuous current at rated frequency and with rated burden over an ambient temperature shall not exceed **55 degree C**.



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- iv. The combined current and potential transformer shall be oil cooled type with Class A insulation. The combined current & potential transformers shall be suitable for up right mounting on pole structures and shall be complete with all accessories like primary terminal connectors, weather proof terminal box for secondary connection, lifting lugs, grounding terminals and name plate.
- v. It shall be of hermetically sealed type construction to prevent air & moisture from entering the tank. The design and construction of combined CT & PT Unit shall be sufficient to withstand the thermal and mechanical stresses resulting from the specified short circuit currents and specified duration as mentioned in General Technical Specification.

The core of the combined CT & PT Unit shall be high grade non-ageing, electrical, silicon laminated steel of low hysteresis loss and high permeability to ensure high accuracy at both normal and over current. the exciting current shall be as low as possible and shall be capable of maintaining its rated accuracy at different burdens and within saturation limits.

- vi. The combined CT & PT Unit Characteristics shall be such as to provide satisfactory performance for burdens ranging from at least **25% to 100%** of rated burden in case of metering combined CT & PT Unit cores.
- vii. When operating the current transformer between **5% of the rated current** and the rated continuous thermal current, the voltage transformer shall not exceed the limits of voltage error and phase displacement corresponding to its class within the specified range of burden and between **80% and 120%** of the rated voltage.
- viii. When operating the voltage transformer between 80% of the rated voltage and the rated voltage multiplied by the rated voltage factor, the current transformer shall not exceed the limits of current error and phase displacement within the range of current corresponding to its class and within the specified range of burden.
- ix. The combined CT & PT Unit secondary to be used for metering and instruments shall be of accuracy class and I S F as specified. The saturation factor of this core shall be low enough so as not cause any damage to measuring instruments in the event of maximum short circuit current.
- x. The insulation of bushings shall be co-ordinated with that of the combined CT & PT Unit such that the flashover, if any will occur only external to the combined CT & PT Unit. Each of the bushings porcelain shall have creepage distance suitable for voltage class as specified in specified IS.
- xi. Two grounding terminals on diagonally opposite sides of adequate size suitable for connecting M.S.Flat of size 50 mm x 6 mm shall be provided.
- xii. The tank and top metallic cover of CT & PT combined unit shall be painted with epoxy paint. All steel surfaces shall be cleaned by sand blasting or chemical process as required to produce



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a smooth surface, free of scale, grease and dirt. Paints shall be carefully selected to withstand tropical heat, rain etc. The paints shall not scale off or crinkle or be removed by abrasion due to normal handling.

- xiii. The tank and top metallic cover of CT & PT combined unit shall be painted with epoxy paint. All steel surfaces shall be cleaned by sand blasting or chemical process as required to produce a smooth surface, free of scale, grease and dirt. Paints shall be carefully selected to withstand tropical heat, rain etc. The paints shall not scale off or crinkle or be removed by abrasion due to normal handling.

#### **4.0 TESTS:**

The combined C.T/PT shall comply with the requirements of routine test as specified in the relevant Clause of IS:16227.

#### **5.0 INSPECTION:**

Inspection shall be guided as per **Clause No. 23.0 , Section –III**

#### **6.0 TEST REPORTS AND TYPE TESTS:**

The Bidder should submit all the type test report on 11KV Combined CT & PT with CTR:-**100/5 A** at higher ratio as per IS 16227 from CPRI/NABL accredited/Govt. recognized Test House or Laboratory carried out having identical rating. The Type Test certificates of the NABL accredited/govt. recognized test house or laboratory should, however, bear the logo of NABL accreditation. Each Type Test Report shall comply the following information with test results.

- i) Complete identification, date and serial no.
- ii) Method of application where applied, duration and interpretation of each test.



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**7.0 DRAWINGS AND MANUALS:**

The following drawings and manuals shall be submitted in four (4) copies for approval.

- a) General outline dimension drawing of 11 KV metering panel and CT-PT unit furnishing front and side elevation, top and bottom plan, views showing all accessories, mounting arrangement , including dimension of the bolts, total creepage distance of bushing, electrical diagram for primary and secondary connections with polarity mark, terminal arrangement for secondary terminal box, size of primary terminals, grounding terminals and lifting lugs, quantity of insulating oil, net dimension etc.
- b) Name and rating plate diagram of combined CT & PT Unit.





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## **Technical Specifications of Current Transformer**

<b><u>Sl.N o.</u></b>	<b><u>Description</u></b>	<b><u>Rating</u></b>
i)	Rated system voltage KV(rms)	11
ii)	Highest system voltage KV(rms)	12
iii)	CT Ratio	100/5 Asuitable for 3 Phase 4 Wire meter r, rating - /5A & - /110V, 0.5 class
iv)	Burden (VA)	10VA
v)	Accuracy Class	0.5
vi)	System frequency (Hz)	50
vii)	System neutral earthing	Effectively Earthed
viii)	Installation	Outdoor
ix)	Extended current rating	120%
x)	Rated short time thermal current for 1 second (KA rms)	18.4
xi)	Rated Dynamic current KA (peak) (should be at least 2.5 times of above rating)	46
xii)	Rated Insulation level:	
	a) 1.2/50 microsecond impulse withstand voltage (KV peak)	75
	b) One minute power frequency withstand voltage (KV rms) on primary winding	28
	c) Power frequency withstand voltage for secondary winding for one minute (KV rms)	3
xiii)	Overvoltage interturn test	As per IS:16227
xiv)	Minimum Creepage Distance (Heavily polluted atmosphere) (in mm)	300
xv)	Limit of temp. rise (°C) of windings at rated current	55°C
xvi)	Instrument security factor	Less than 5 for metering core at Lower Ratio
xvii)	Type of Insulation	Class A
xviii)	Mounting Dimension (mm) of CT and PT combined unit	243X243
xix)	Material and minimum Diameter of Primary stud of CT and PT combined unit	M-16, tin plated electrolytic copper
xx)	Painting shed of CT and PT combined unit	631 of IS-5
xxi)	Maximum Partial Discharge:	
	a) when energized at 12 KV rms	10 PC
	b) when energized at 1.2x12/√3 KV rms	5 PC



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## Technical Specifications of Potential Transformer

<b><u>Sl.No.</u></b>	<b><u>Description</u></b>	<b><u>Rating</u></b>
i)	RatedsystemvoltageKV(rms)	11
ii)	HighestsystemvoltageKV(rms)	12
iii)	PTRatio	11000/110V
iv)	Burden(VA)	20VA/phase
v)	AccuracyClass	0.5
vi)	Systemfrequency(Hz)	50
vii)	Installation	Outdoor
viii)	No.ofphase/Connection	3Ph,Star/starwithbothNeutral Earthed(3phase5Limb PT)
ix)	RatedInsulationlevel:	
	a) 1.2/50 microsecond impulsewithstandvoltage(KVpeak)	75
	b)Oneminutepowerfrequencywithstandvoltage(KVrms) onprimarywinding	28
	c)Powerfrequencyvoltagewithstandrequirements for secondary windingforoneminute(KVrms)	3
x)	Limitoftemp.riseofwinding(°C)	55°Caboveambienttemperature
xi)	Voltagefactor	1.2cont.&1.9for8hours
xii)	MaximumPartialDischarge:	
	a)whenenergizedat12KV rms	10PC
	b)when energizedat 1.2x12/√3KVrms	5PC

### LIST OF APPROVED MAKES / MANUFACTURERS:

<b>Sl. No.</b>	<b>EQUIPMENT</b>	<b>MAKES / MANUFACTURERS</b>
1	XLPE INSULATED, HV & MV POWER CABLE	KEC-RPG / UNIVERSAL CABLE / POLYCAB / KEI / HAVELLS
2	HDPE PIPE	JAIN PIPES / SUPREME / SUDHAKAR / SREE NARAYANI
3	G.I PIPE	TATA / JINDAL
4	CABLE TERMINATION KITS (HEAT SHRINKABLE TYPE )	RAYCHEM / 3M / JOINT MASK
5	STEEL STRUCTURES	SAIL/TISCO/ESSAR/BHUSAN/SRMB



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**B. EARTHING AND EARTHING G.I PIPE**

**1.0 Scope**

GI earthing pipe should be made of 40 mm diameter ISI marked heavy duty A class GI Pipe. 12 mm dia suitable holes on its circumference shall be made as per approved drawing. The pipe should be in one piece. No joints or welding would be allowed on its length. Clamps made of 50x6mm GI flat duly drilled with 12 mm size holes should be welded at the top end for connection of earth conductor. Pipe used shall be 40mm NB diameter, ISI marked Galvanized Mild Steel Tubes continuously welded Electric Resistance Welded ERW/High Frequency Induction welded (HFIW)/Hot finished welded (HFW) type, conforming to IS-554-1985 with latest amendment of Heavy duty quality (Class A).

**2.0 MANUFACTURE**

GI earth pipe (40 mm diameter & 2.5 meter long) shall be made of tubes which shall be made from tested quality steel manufactured by any approved process as follows:

- a) Electric Resistance Welded (ERW).
- b) High Frequency Induction Welded (HFIW) and
- c) Hot finished Welded (HFW).

Tubes made by manual welding are not acceptable.

**3.0 DIMENSIONS**

The dimensions and weights of tubes shall be in accordance with Table-I and Table-II of IS: 1239 (Part-I)/1990 with latest amendments, subject to tolerance permitted therein. Necessary 12 mm diameter holes across the circumference shall be provided as per approved drawing. Drawings shall be approved by the owner before start of the manufacturing work. The tube, earthing pipe shall be provided with 50x6mm GS clamps on one end, one clamp is to be welded with the pipe and another is removable to enable measurement of earth resistance of the pit. Other end of the earth pipe should be cut half in slop to make it a sharp.

**4.0 GALVANIZING**

Tubes shall be galvanized in accordance with IS-4736-1986 with latest amendment for not (hot) dip zinc coating of Mild Steel Tubes. The minimum mass of zinc coating on the tubes shall be in accordance with clause 5.1 of IS-4736-1986 (specification for hot dip zinc) and when determined on a 100mm long test piece in accordance with IS: 6745:1972 shall be 400 g/m<sup>2</sup>. The zinc coating shall be uniform adherent reasonably smooth and free from such imperfections as flux, ash and dross inclusions, bare patches, black spots, pimples, lumpiness, rust, stains, bulky white deposits and blisters.

**5.0 HYDRAULIC TEST**

(Before applying holes) Each tube shall withstand a test pressure of 5 M Pa maintained for at least 3 seconds without showing defects of any kind. The pressure shall be applied by approved means and maintained sufficiently long for proof and inspection. The testing apparatus shall be fitted with an accurate pressure indicator.



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**6.0 TESTS ON FINISHED TUBES AND SOCKETS**

The following tests shall be conducted by the manufacturer of finished tubes and sockets.

- i. The tensile strength of length of strip cut from selected tubes when tested in accordance with IS-1894-1972, (Method for tensile testing of steel tubes), shall be at least 320N/mm<sup>2</sup>.
- ii. The elongation percentage on a gauge length of 5.65/s<sub>0</sub> (where s<sub>0</sub> is the original cross sectional area of test specimen) shall not be less than 20%.
- iii. When tested in accordance with IS-2329-1985 (Method for Bend test on Metallic tubes) the finished tube shall be capable of withstanding the bend test without showing any sign of fracture or failure. Welded tubes shall be bent with the weld at 90 degree to the plane of bending. The tubes shall not be filled for this test.
- iv. Galvanized tubes shall be capable of being bent cold without cracking of the steel, through 90 degree round a former having a radius at the bottom of the groove equal to 8 times the outside diameter of tube.
- v. Flattening Test on Tubes above 50 mm Nominal Bore: Rings not less than 40 mm in length cut from the ends of selected tubes shall be flattered between parallel plates with the weld, if any, at 90 degree (point of maximum bending) in accordance with IS-2328- 1983. No opening should occur by fracture in the weld unless the distance between the plates is less than 75 percent of the original outside diameter of the pipe and no cracks or breaks in the metal elsewhere than in the weld shall occur, unless the distance between the plates is less than 60% of the original outside diameter. The test rings may have the inner and outer edges rounded.

**7.0 GALVANIZING TEST**

- i. Weight of zinc Coating: For tubes thickness up to 6 mm the minimum weight of zinc coating, when determined on a 100 mm long test piece in accordance with IS-4736-1986 shall be 400 gm/m<sup>2</sup>.
- ii. The weight of the coating expressed in gram/m<sup>2</sup> shall be calculated by dividing the total weight of the zinc (inside plus outside) by the total area (inside plus outside) of the coated surface.
- iii. Test specimen for this test shall be cut approximately 100 mm in length from opposite ends of the length of tubes selected for testing. Before cutting the test specimen, 50 mm from both ends of the samples shall be discarded.
- iv. Free Bore Test: A rod 230mm long and of appropriate diameter shall be passed through relevant nominal bore of the sample tubes to ensure a free bore.
- v. Uniformity of Galvanized Coating: The galvanized coating when determined on a 100 mm long test piece [see V (a) (iii)] in accordance with IS-2633-1986 (Method for testing uniformity of coating on zinc coated articles) shall with stand 4 one minute dips.

**8.0 WORKMANSHIP**

The tubes shall be cleanly finished and reasonably free from injurious defects. They shall be reasonably straight, free from cracks, surface flaws, laminations, and other defects, both internally and externally. The screw tubes and sockets shall be clean and well-cut. The ends shall be cut cleanly and square with the axis of tube.



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9.0 MARKING

- i. The medium class of tubes shall be distinguished by Blue color bands which shall be applied before the tubes leaves the manufacturers' works.
- ii. Tubes shall be marked with the standard mark.

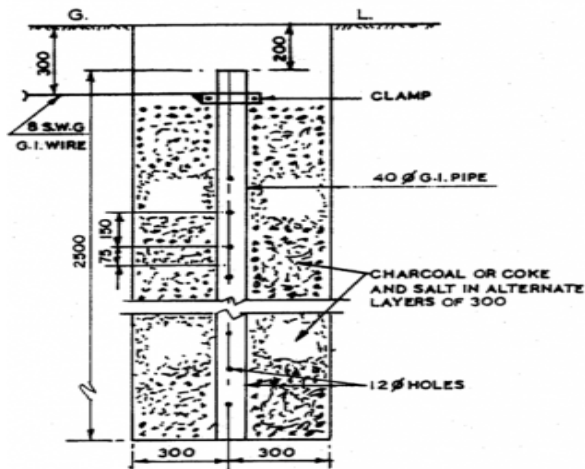
10.0 EARTHING ARRANGEMENT OF DISTRIBUTION TRANSFORMERS

- 10.1 The earth pits should be located as per REC Construction Standard F-5 (Annexure VI).
- 10.2 Pipe earth electrodes should be provided in each earth pit as per REC construction standard J-1 and J-2 (Annexure VII & VIII).
- 10.3 4 mm (8 S.W.G), G.I. wire should be used for earth leads.
- 10.4 One of the earth electrodes on either side of D.P. structure should be connected with;
  - (a) One direct connection from the L.T. Lightning arresters and cross-arm.
  - (b) One direct connection with Lightning arrester on H.T. side (11KV) and cross-arm.
- 10.5 To each of the remaining two earth electrodes, the following should be connected:-
  - (a) One separate connection from the neutral (on medium voltage side) of the transformer.
  - (b) One separate connection from the transformer body and the handle of 11KV A.B. switch.
  - (c) One separate connection from the earthing terminal of the poles.

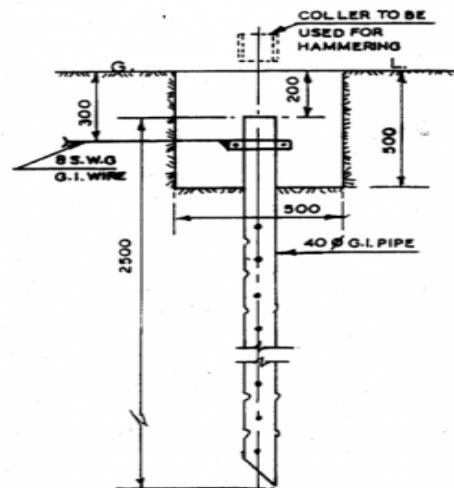


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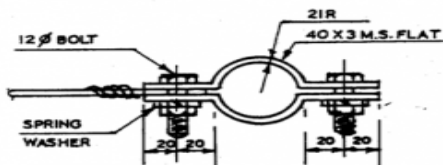
**CONSTRUCTION STANDARD**



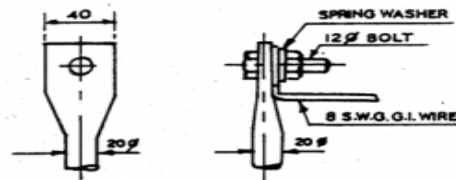
**EARTHING FOR HARD, STIFF  
OR MEDIUM CLAY**



**EARTHING FOR ORDINARY SOIL  
WHERE PIPE COULD BE HAMMERED IN**



**TYPICAL DETAIL OF CLAMP  
FOR PIPE EARTH**



**TYPICAL DETAIL OF CONNECTION  
FOR ROD EARTH**

**NOTES:-**

1. ALTERNATIVELY 20  $\phi$  G.I. ROD MAY BE USED INSTEAD OF PIPE.
2. WATER TO BE POURED INTO SUMP TO KEEP THE SOIL SURROUNDING THE EARTH PIPE/ROD MOIST.
3. FOR COIL EARTHING REFER CONSTRUCTION STANDARD. J-1.

ALL DIMENSIONS ARE IN mm.

**PIPE / ROD EARTHING**

SCALE :- N.T.S | SEPT, - 1972





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**C. GALVANIZED IRON PIPES**

**1.0 SCOPE:**

The Specification covers the requirements for G.I. Pipes Heavy duty. Unless modified by this specification, requirement of IS 1239 (part-1) -1990 and 2004 shall be valid.

**2.0 MATERIAL:**

The material used for manufacturing of G.I. Pipes shall confirm to IS 1239 (part-1) -1990 and 2004.

**3.0 DIAMENSIONS AND DIMENSIONAL TOLERANCES:**

The dimensions and nominal mass of tubes shall be in accordance with Table 2 subject to the tolerances permitted in CL 8.1 and 9 of IS 1239 (Part -1)

**4.0 THREADS:**

- ◆ Unless specified otherwise, tubes shall be supplied as plain ends.
- ◆ External threads shall be tapered and confirmed to ASME B1.20.1 or BS 21.
  - ◆ For checking conformity of threads gauging practice in accordance with ASME B1.20.1 or BS 21

**5.0 FREEDOM FROM DEFECTS:**

On visual examination the outside and inside surfaces of pipes shall smooth and free from defects such as cracks etc.

**6.0 GALVANISING:**

Pipes shall be galvanized to meet the requirement of IS 4736:1986.

- ◆ Zinc confirming to any grade specified in IS 4736:1986 shall be used for the purpose of galvanizing.
- ◆ Galvanizing Bath: The molten metal in the galvanizing bath shall contain not less than 98.5% by mass of zinc.
- ◆ Coating Requirement: minimum Mass of Zinc coating determined as per IS 6745 - 1972 shall be 400 gms/m<sup>2</sup>.
- ◆ Freedom from Defect: The zinc coating shall be uniform adhered, reasonably smooth and free from such imperfections as flux, ash bore patches, black spots, pimples, lumpiness runs, rust strains, bulky white deposits, and blisters.
- ◆ Criteria for Samplings: All materials of same type in coating bath having uniform coating characteristics shall be grouped together to continue a lot. Each lot shall be tested separately for the various requirements of the specifications. The number of units to be selected from each lot for the testing purpose shall be as per IS: 4736:1986
  - ◆ The sample selected according to clause 6.1 and 6.2 of IS 4736 – 1986.
  - ◆ The sample found confirming to above requirements shall then be tested mass of zinc coating in accordance with clause no 5.1 of IS 4736 -1986.
  - ◆ Criteria for conformity: AS per IS 4736 -1986.



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♦ Test procedure as per IS 4736-1986.

♦ Specification for painting of GI pipes

The entire length of the pipeline is to be painted at Contractor works as per following:

a) One coat of Primer application (Appropriate Zinc based primer)

b) Two coats of synthetic enamel paint – canary yellow of minimum of 30 microns per coat of reputed make like Asian, Berger and Nerolac.

**7.0 PRESSURE TEST:**

Hydrostatic pressure test shall be carried out at pressure of 5 Mpa (50Kgf/ Cm<sup>2</sup>). Contractor to submit the internal pressure test certificate for the same. If required, TSECL representative or Third Party Inspection agency appointed by TSECL shall witness finished goods testing as per the sample procedure specified in clause no 14 of IS 1239 (part – 1).

**8.0 MARKING:**

Each pipe shall be EMBOSSED with manufacturers name or trade mark and the size designation at the interval of not more than 2 meters.

Pipe shall be supplied in random length of 4 to 7 meters only.

Each packing containing pipes shall carry the following stamped or written by indelible ink.

a) Manufacturer name and trade mark.

b) Designation of pipe.

c) Lot number.

d) ISI Monogram

Each pipe conforming to this standard shall also be marked with BIS standard mark.

**9.0 INSPECTION/ DOCUMENTS:**

Inspection shall be carried out as per TSECL specifications.

The manufacturer will engage the Third Party Inspection agency approved by TSECL and the cost of the same will be included in the quoted rates.

TSECL representative or Third Party Inspection agency appointed by TSECL may carry out stage wise inspection during manufacturing / final inspection.

Contractor shall furnish all the material test certificates, proof of approval, license from specified authority as per specified standard, if relevant internal test / inspection reports as per TSECL technical specifications and specified code for 100% material, at the time of final inspection of each supply of each lot.

Even after Third Party Inspection TSECL reserves the rights to select a sample of fittings/ pipes randomly from each manufacturing batch and have these independently tested. Should the result of these testes fall outside the limits specified in TSECL technical specifications, then TSECL reserves the rights to reject all production supplied from the same batch.



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**D. HEXAGONAL MS BOLTS & NUTS**

**1.0 SCOPE:**

This specification covers the details of black hexagonal MS Bolts & Nuts of various sizes.

**2.0 APPLICABLE STANDARDS:**

Unless otherwise modified in this specification, the bolts and nuts shall comply with Indian Standard Specifications IS: 1363 - 1967 as amended from time to time or equivalent international standards.

**3.0 WORKMANSHIP:**

Full threaded bolts shall not be used. The bolts and nuts shall have hexagonal heads, which shall be neatly finished concentric and square with the shank and free from burrs, scale and other defects. Threads in nuts shall not be torn or ragged and shall be of proper contour. The fits of the nuts shall be such that there will be no locking of the nuts. Nuts and bolts of the same size shall be interchangeable. The thread of nuts & bolts shall have coarse pitch screw threads as per IS: 1363 - 1967 or relevant International Standards and shall meet with all applicable technical supply conditions covered under this standard.

**2.0 PARTICULARS OF MATERIAL:**

**5.1 MECHANICAL PROPERTIES:**

The mechanical properties of bolts covered in this standard shall conform to the property clause 4.6 and that for nuts shall conform to the property clause 4 specified in IS: 1363-1967 or its latest edition.

**6.0 GRADE:**

Bolts & nuts covered in this specification shall conform to Black Grade B, specified in IS: 1363-1967.

**7.0 DESIGNATION:**

Black Bolts & Nuts covered in this specification shall be designated as per table I of IS: 1363-1967.

**8.0 DIMENSIONS:**

The dimensions for black bolts & nuts shall be as given in table 2 & 3 of IS : 1363-1967.

The bolts and nuts shall have coarse pitch screw threads conforming to IS : 4218-1967 (ISO Metric screw threads) or the relevant International Standards.

Preferred length diameter combinations for black hexagonal bolts are given in table-4 IS : 1363-1967.

**9.0 REQUIREMENTS:**

9.1 The method of sampling and acceptance criteria of black hexagonal bolts and nuts shall be in accordance with IS: 2614-1964.

9.2 The bolts & nuts conforming to this standard shall comply with the requirements of IS: 1367-1967 in regard to requirements not specified in this standard.

**10.0 TESTS:**

All types of tests including routine tests shall be carried out according to relevant standards.

**11.0 INSPECTION:**



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Inspection and testing shall be carried out in accordance with the general instructions.

**12.0 PLACE OF MANUFACTURE:**

The contractor shall state the place of manufacture, testing and name of the manufacturer of the various items included in his inspection offer.

**13.0 PACKING AND TRANSPORT:**

The contractor shall be responsible for suitable packing of all the material and marking on the consignment, so as to avoid any damage during transport and storage and to ensure correct dispatch. The packing shall be conforming to the requirement laid down in IS: 3256-1965 or its latest amendment.

**14.0 DRAWING AND LITERATURE:**

Illustrated and descriptive literature on the material must be submitted along with the offer for inspection.

**15.0 RAW MATERIAL:**

No assistance whatsoever for arranging the raw material for manufacture of bolts & nuts shall be provided by the employer. The delivery shall not be dependent upon availability of raw material.

**16.0 MARKING:**

The sealed container of bolts & nuts shall be marked with:

- a) Manufacturer's name & trade mark.
- b) Place of manufacture.
- c) The marking shall be stencilled indelible ink on gunny bags.
- d) Net weight with description of material.



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**SECTION-V**

**Special Instructions to Bidder(s)**

- i) The Bidder(s), before submitting of Bid(s), are advised to invariably visit the site of the work and satisfy himself/themselves about physical volume of works to be carried out, acquaint him / themselves with the environment, take into consideration details of all **minor & major Technical requirements so as to** ensure successful completion of the work with ease & comfort on award.
- ii) The Contractor shall be fully responsible for total commissioning of all **Equipment & associated controls** as per standard & requirement of the owner. The Contractor shall give due importance to each & every details of the work. He shall be liable to take care of and arrange for even any petty but integral component (**not considered in the scope of the work**) for total completion of the work.
- iii) The work shall be carried out as per direction of the Engineer in charge following guide line and specification of the Agreement.
- iv) The validity of the offer shall be 90 days from the date of submission of offer.
- v) The rate should be inclusive of GST, no other tax shall be paid extra.
- vi) Every page of Tender is to be signed by the contractor.
- vii) Materials to be supplied as per TSECL Specification, as per direction of Engineer-In-Charge.

**Section VI**

**TERMS & CONDITIONS**

1. The bidder must provide
  - a. Successful completion certificate issued by an Engineer not below rank of Executive Engineer/Dy. General Manager in charge.
  - b. Photocopy of PAN card issued by Income tax Dept., Govt. of India of bidder / all partners of joint venture.
  - c. Photocopy of Valid Labour license issued by Licensing Officer, Govt. of Tripura.
  - d. Photocopy of Valid Electrical License issued by Tripura Electrical Licensing Board .
  - e. Experience certificate indicating same nature of work issued by an Engineer not below rank of Assistant Engineer/Sr. Manager in charge.
  - f. Photocopy of Valid GST Registration certificate.
  - g. The bidder shall be required to deposit **Earnest money /Bid Grantee of Rs. 4,760.00**(Rupees Four Thousand Seven Hundred Sixty) only in the shape of **demand draft or D-Call** favouring **Dy. General Manager, ED -Mohanpur, TSECL**, on any schedule Bank payable at Agartala, West Tripura along with the bid in a separate sealed envelope .**Cost of Bid in case of download** in a separate sealed envelope in the shape of **demand draft** favouring **Dy. General Manager, ED - Mohanpur, TSECL**.  
Photocopies of all documents furnished shall be self-authenticated.
2. The bidder must have successfully executed at least supply, erection, commissioning of at least 1.0Km of HT & 1X100 KVA Substation which must be in satisfactory operation for one and half years as on the date of bid opening.
3. The Bidding document shall be signed by the bidder(s) on all pages. The Bidder(s) should initial all corrections to rates and items in the Bid(s). The Bidder(s) shall also sign every page of the Schedule Price Bidding in full..



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4. Bids shall remain valid for 3 (month) calendar months from the last due date of bid. A bid valid for a shorter period shall be rejected by TSECL as non-responsive.
  5. The bidder should submit bid in sealed envelope inscribing name of work along with Restricted NIT Number on the top. Each bidder should enclose earnest money as specified in the shape of Demand Draft, failing which bid shall be rejected summarily.
  6. Bidders should quote rate(s) inclusive of GST. **No Taxes & Duties will be paid extra.**
  7. The bidders should drop their bids in the of office of the Dy. General Manager Electrical Division, Mohanpur, West, Tripura.
  8. TSECL will not be liable for any delay by post / courier in receiving any bid for the work. Bids received within the schedule date & time shall only be considered.
  9. The rates shall be valid for 1 (one) year from the date of acceptance. If necessary, it may extend for further period at same rate(s), terms & conditions as may be decided by the authority.
  10. TSECL reserves the right to reject or accept any bid without assigning any reasons.
  11. TSECL reserves the right to accept rate of two or more bidders in line with the terms and conditions specified. TSECL shall accept the rates of the Bidder(s) whose bid has been determined to be substantially responsive and has been determined as technically acceptable.
  12. The successful bidder(s) will have to execute the work as per Technical Specification and General Condition of TSECL. Separate order will be placed time-to-time as per accepted rates and Terms & Conditions.
  13. General condition of contract and other related information etc. may be seen at the Technical Section of Electrical Sub Division, Mohanpur, West, Tripura.
- .on all working days during office hours up to the date fixed for providing of Tender form.
14. The agency shall be penalized for negligence in performance / delay in executing job. Unsatisfactory performance / delay in executing job by the agency shall be liable for the contract performance guaranty money to be forfeited.
  15. Taxes as applicable shall be deducted from bill of the agency as per standing order of the Government
  16. The Bidder(s) shall have to give a DECLARATION that he/they have gone through the details of the Bidding Document(s) as per format appended with the Bidding Document.
  17. Notwithstanding anything contained herein above, TSECL reserve the right to assess the “capacity and capability” of the bidder to execute the work.

Dy. General Manager  
Electrical Division Mohanpur



**TRIPURA STATE ELECTRICITY CORPORATION LTD**  
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ANNEXURE – I

**APPLICATION FOR EXTENSION OF TIME**

(Part – I)

1. Name of Contractor \_\_\_\_\_

2. Name of work (as given in the contract) :-

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Agreement of \_\_\_\_\_

4. Estimate amount put to tender \_\_\_\_\_

5. Date of Commencement of work \_\_\_\_\_

6. Period allowed for completion of work (as per agreement) \_\_\_\_\_

7. Date of completion stipulated in the agreement \_\_\_\_\_

8. Period for which extension of time has been given previously if any \_\_\_\_\_

a) 1<sup>st</sup> extension vide No. \_\_\_\_\_

b) 2<sup>nd</sup> extension vide No. \_\_\_\_\_

c) 3<sup>rd</sup> extension vide No. \_\_\_\_\_

d) 4<sup>th</sup> extension vide No. \_\_\_\_\_

9. Period for which extension have been previously given (Copies of the previous application should be attached).

10. Hindrances on account of which extension is applied for with date on which hindrances occurred.

Sl. No.	Nature of hindrances	Date of occurrence	Period of which hindrances is likely to last	Extension of time applied for by the contractor	Overlapping period, if any, giving reference to items which overlap	Period for which extension is applied for.	Remarks as to why the hindrances occurred and justification for extension of time

11. Total period for which extension is now applied for on account of hindrances mentioned above.

12. Extension of time required for extra work: - \_\_\_\_\_ Months. \_\_\_\_\_ days.

13. Detailed for extra work and the amount involved: -

14.

a) Total value of extra work: -

b) Proportionate period of extension of time based on estimated amount put to tender on account of extra work: -

15. Total extension of time required for 11 & 12: -

Signature of Contractor





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**APPLICATION FOR EXTENSION OF TIME**

**(Part – II)**

(To be filled in by TSECL)

1. Date of receipt of application from \_\_\_\_\_ contractor  
for the work of \_\_\_\_\_  
\_\_\_\_\_ in the  
Sub-Divisional \_\_\_\_\_.
2. Acknowledgement issued by the Sr. Manager, vide his No. \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_.
3. Recommendation of Sr. Manager, in – charge of the Sub-Division is to whether the reasons given by  
the Contractor are correct and what extension, if any, recommended by him, if he does not  
recommended the extension, reasons for rejection should be given

Dated .....

Signature of the Sr. Manager in-charge of Sub-Division.



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**APPLICATION FOR EXTENSION OF TIME**

**(Part – III)**

(To be filled in by TSECL)

1. Date of receipt in the Divisional office: \_\_\_\_\_
2. Report of DGM, in-charge of the Division regarding hindrances mentioned by the contractor

Sl. No.	Nature of hindrances	Date of occurrence	Period for which hindrances is likely to last	Extension of time applied for by the contractor	Overlapping period, if any, giving reference to items which overlap	Net extension applied for	Remarks as to why the hindrances occurred and justification for extension recommended

3. Recommendation / Approval of the DGM, in-charge of the Division: -  
(The present progress of work should be stated and whether the work is likely to be completed by the date upto which extension is applied for, if extension of time is not recommended, what compensation is proposed to be levied under clause 13 of section - III.

**Signature of DGM**

4. Recommendation / Approval of the AGM, in-charge of the Circle: -

**Signature of AGM**

5. Recommendation / Approval of the GM (Technical): -

**Signature of GM (Technical)**

6. Recommendation / Approval of the CMD:

-

**Signature of CMD**



**TRIPURA STATE ELECTRICITY CORPORATION LTD**  
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**Annexure-II**

(Non Judicial Stamp of Rs.30/-)

**BEFORE THE NOTARY PUBLIC**

\_\_\_\_\_: TRIPURA

**INDEMNITY BOND**

THIS INDEMNITY BOND IS EXECUTED ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_ 2008 A.D. BY SRI \_\_\_\_\_, S/O Shri/Late \_\_\_\_\_, Vill \_\_\_\_\_ P.S \_\_\_\_\_, District \_\_\_\_\_, aged about \_\_\_\_\_ years, a citizen of India (Here-in-after called the Contractor indemnifier) in favour of the Tripura State Electricity Corporation Ltd. (TSECL) (Here-in-after called the Corporation) under the terms and conditions here-in-after mentioned:-

WHEREAS, I am a class \_\_\_\_\_ Government Contractor and the Corporation awarded me to execute the work namely \_\_\_\_\_

I agree to indemnify the Corporation that in the event of any accident of any workman, arising out of and in course of employment, during execution of the work I shall be liable to pay full compensation to the workmen employed by me for execution of the work.

I also agree to indemnify and save harmless the corporation that the lives & bodies of any workman(s), employed by me for execution of this work, are duly insured with the \_\_\_\_\_ Insurance Company \_\_\_\_\_ Branch under \_\_\_\_\_ Act/Scheme.

I further agree to indemnify and save harmless the corporation or any of its Director(s) or Officer(s) or Manager(s) shall not be made liable to pay any compensation to any workman in the event of death of bodily injured, arising out of & in course of employment under me, employed by me for execution of the work namely \_\_\_\_\_.

IN WITNESS WHERE OF I SIGNE THIS INDEMNITY BOND TODAY, THE DAY, MONTH, YEAR FIRST ABOVE WRITTEN IN PRESENCE OF FOLLOWING WITNESS.

Witnesses:- \_\_\_\_\_

1.

Full Signature of Contractor

(INDEMNIFIER)

2.

Identified by me

\_\_\_\_\_

Advocate



**DECLARATION**

I / We hereby declare that I/we have personally gone through the Bid- Document containing General terms and conditions, Other Instructions etc. incorporated in the Bidding Document for the works /supply and I/we do agree to abide by all the rules and regulations of TSECL, Agartala, Tripura.

Signature of Bidder



**TRIPURA STATE ELECTRICITY CORPORATION LTD**  
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