

**SPECIFICATION NO.HE-2516**



**TAMILNADU GREEN ENERGY CORPORATION LIMITED**  
**(Formerly TANGEDCO)**  
**SPECIFICATION No.HE-2516**

E\_TENDER SPECIFICATION FOR  
 DESIGN, MANUFACTURE, SUPPLY, ERECTION, TESTING  
 & COMMISSIONING OF FIVE NUMBERS (Gate  
 No.8,9,10,11 & 12) NEW VERTICAL LIFT TYPE FIXED  
 WHEEL BARRAGE GATES (15MTRS X 9MTRS) WITH  
 COUNTER WEIGHT & HOISTING MECHANISM ALONG  
 WITH DISMANTLING OF OLD BARRAGE GATE WITH  
 COUNTER WEIGHT & HOISTING MECHANISM  
 AT  
 LMBPH-4/URATCHIKOTTAI, ERODE GENERATION  
 CIRCLE.

**( E-TENTERING Through Tamil Nadu Government e-  
 procurement portal)**

**DECEMBER-2025**

OFFICE OF THE  
 SUPERINTENDING ENGINEER/HYDRO (ELECTRICAL)  
 5<sup>th</sup> FLOOR, EASTERN WING  
 NPKRR MAALIGAI  
 144, ANNA SALAI, CHENNAI - 600 002.

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 Service Provider :

Website for online bid submission:  
**<https://tntenders.gov.in>** of Tamil Nadu Government e-procurement  
 Portal)

## INDEX

<b>SL. NO.</b>	<b>ITEM</b>	<b>DESCRIPTION</b>	<b>PAGE NO.</b>
<b>1.</b>		<b>Foreword</b>	04
<b>2.</b>		INSTRUCTIONS TO BIDDERS FOR SUBMISSION OF ONLINE BIDS	07
<b>3.</b>	SECTION-I :	Earnest Money Deposit	11
<b>4.</b>	SECTION-II :	Bid Qualifying Requirements.	15
<b>5.</b>	SECTION-III :	Rejection of Tender.	16
<b>6.</b>	SECTION-IV :	General Instructions to Tenderers	17
<b>7.</b>	SECTION-V :	Commercial	26
<b>8.</b>	SECTION-VI :	General Conditions (Statutory Compliances)	49
<b>9.</b>	SECTION-VII :	Technical	60
<b>10.</b>	SECTION-VIII:	Formats	85
<b>11.</b>	SCHEDULE-A :	Price Schedule	85
<b>12.</b>	SCHEDULE-B :	Deviation from Technical Specification.	87
<b>13.</b>	SCHEDULE-C :	Deviation from Commercial Specification.	88
<b>14.</b>	SCHEDULE-D :	Statement of Previous POs /Work Orders executed	89
<b>15.</b>	SCHEDULE-E :	Declaration Form.	90
<b>16.</b>	SCHEDULE-F :	Declaration Form.	91
<b>17.</b>	SCHEDULE-G :	Questionnaire A,B & C (Check List for BQR, Commercial Terms, Technical Terms)	92
<b>18.</b>	ANNEXURE – I	Undertaking in Lieu of EMD	96
<b>19.</b>	ANNEXURE – II	Undertaking towards Security Deposit Cum Performance Guarantee	97
<b>20.</b>	ANNEXURE – III	Undertaking towards Jurisdiction for legal Proceedings	99
<b>21.</b>	ANNEXURE – IV	Declaration for Input Tax credit Benefit	100
<b>22.</b>	ANNEXURE – V	Undertaking for payment of dues to TNGECL	101
<b>23.</b>	ANNEXURE -VI	Guarantee Certificate	102
<b>24.</b>	ANNEXURE -VII	Undertaking towards EPF and ESI	103
<b>25.</b>	ANNEXURE -VIII	Drawings	104

**TAMILNADU GREEN ENERGY CORPORATION LIMITED**  
**SPECIFICATION NO. HE –2516**  
**F O R E W O R D**  
**INVITATION FOR BID**

For and on behalf of TNGECL, e-tenders are invited under Open Tender - Two part system for the following work:

1.	Specification No.	HE – 2516
2.	Name of Work	E-Tender for Design, Manufacture, Supply, Erection, Testing & Commissioning of Five numbers (Gate No.8,9,10,11&12) new vertical lift type fixed Wheel barrage gates (15mtrs X 9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/ Uratchikottai, Erode Generation Circle as per the technical specifications.
3.	Method of Tender	e-Tender System (Online Part I - Techno-Commercial Bid and Part II - Price Bid and Through <a href="https://tntenders.gov.in">https://tntenders.gov.in</a> of Tamil Nadu Government e-procurement Portal)
4.	Earnest Money Deposit (EMD)	Rs.11,00,000/- (Rupees Eleven lakhs only). i)The Online payment Gateway has been enabled for TNGECL in TN Tenders Portal. ( <a href="http://www.tntenders.gov.in">www.tntenders.gov.in</a> ) The payment of EMD will be carried out by the Bidders only through online payment mode. Note: As the internet banking process (NEFT/RTGS) may take some time for confirming the receipt of EMD, bidders may plan such a way to pay the EMD accordingly to avoid any delay in bank confirmation. After getting success status of EMD payment only, the bidder can submit the bid.  ii) The EMD amount should be the exact amount and no excess or less amount should be transferred through <b>online payment gateway</b> . If excess or short, the tender status will be shown as invalid.  iii) If submitting EMD as PEMD/ Udyam (SSI) (as mentioned in the specification), then select the exempted from EMD payment as "YES". Then upload the EMD exemption documents only in "pdf" files.
	Or (b) Permanent E.M.D.	:Rs.40,00,000/- and above under revised slab at TANGEDCO/TNGECL Head Quarters on or after 03.12.2021.
5.	URL for online bid submission for e-tender	<a href="https://tntenders.gov.in">https://tntenders.gov.in</a>
6.	Tender documentdownload	12.12.2025 @14.00 Hrs

	start date and time	
7.	Bid submission start date and time	17.12.2025 @14.00 Hrs
8.	Bid submission closing date and time	12.01.2026 @14.00 Hrs
9.	Date & time of opening of e-tender	13.01.2026 @14.30 Hrs
10.	Specification at website	The tender specification will be placed on TANGEDCO web site ( <a href="http://www.tangedco.gov.in">www.tangedco.gov.in</a> ) TN Govt. Website ( <a href="http://www.tender.tn.gov.in">www.tender.tn.gov.in</a> ) and TN Govt. e-procurement portal ( <a href="https://tntenders.gov.in">https://tntenders.gov.in</a> ). The prospective bidders may download the same from the web sites free of cost.
11.	Documents to be uploaded by the Tenderers during e-submission	The techno-commercial bid and Price Bid (BOQ) and all documents scanned in support of the following shall be uploaded with the bid : 1. EMD. 2. BQR 3. Schedules B to G and other documents whichever is applicable as per the tender Specification requirements.
12.	Clarification to be sought for from	The Chief Engineer/ Hydro, Tamil Nadu Generation and Distribution Corporation Ltd., 5 <sup>th</sup> Floor, Eastern Wing, NPKRR Maaligai, 144, Anna Salai, Chennai – 600 002. Ph.044-2852 0409 E-mail:cehe@tnebn.net.org
13.	Place at which tender will be opened	O/o.The Superintending Engineer/ Hydro (Electrical), TNGECL, 5 <sup>th</sup> Floor/Eastern wing, NPKRR Maaligai,144, Anna Salai, Chennai-2. E-mail: <a href="mailto:sehe@tnebn.net.org">sehe@tnebn.net.org</a>

**NOTE:****1. EMD:**

- i. In case of PEMD Holder, scanned copy of proof of PEMD along with an undertaking in lieu of EMD has to be uploaded.
- ii) In case of exemption of EMD, proof of exemption along with an undertaking in lieu of EMD and documents in support of investment held in plant and machinery has to be scanned and uploaded.
- iii) The bids not uploaded with EMD/PEMD proof **will be summarily rejected.**
- iv) In case of exemption of EMD, proof of exemption along with an undertaking on a non-judicial Stamp paper of value not less than Rs.500/- in lieu of EMD as per Annexure-I duly initialed/endorsed by the tenderer and documents in support of investment held in plant and machinery has to be scanned and uploaded.

TNGECL shall not be responsible for any delay in submission of EMD by any mode. The bids not uploaded with EMD/PEMD proof **will be summarily rejected.**

2. In the event of the specified date of opening of bids being declared holiday, the bid shall be opened on the next working day at the same time and venue.

3. Bid document can be downloaded free of cost and submitted online through the website <http://tntenders.gov.in> only by those bidders, who are having valid Digital Signature Certificate and the bid document cannot be purchased from the Office of the Chief Engineer/Hydro by remitting the cash in the office of the Chief Engineer and no pre request for issue of bid document will be entertained in the Office of the Chief Engineer/Hydro.
4. The Contractors who had downloaded the Bid document from the website shall submit the Bid document through GOVERNMENT OF TAMIL NADU E-PROCUREMENT PORTAL Website before the scheduled time of submission. The electronic bidding systems would not allow any late submission of bids.
5. The Tenderers shall ensure whether any Clarification/Amendment/ Corrigendum is issued to the bid, before submission of their Tender, by visiting the respective Website regularly.
6. For other details, refer "**Instruction to Bidders**" in the tender document.

## **E-TENDERING METHODOLOGY**

### **INSTRUCTIONS TO BIDDERS FOR ONLINE BID SUBMISSION:**

The bidding under this contract is electronic bid submission through website <https://tntenders.gov.in> only. Detailed guidelines for viewing bids and submission of online bids are given on the website. Any citizens or prospective bidders can logon to this website and view the invitation for Bids and can view the details of works for which bids are invited.

### **REGISTRATION:**

1. The prospective bidders can submit bids online, however, the bidders are required to have enrolment/registration in the website by clicking on the link "Online bidder enrolment" which is free of charge.
2. As part of the enrolment process, the bidders are required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These details would be used for any communication from the GOVERNMENT OF TAMILNADU E PROCUREMENT Portal.
4. Upon enrolment, the bidders are required to register their valid Digital Signature Certificate (DSC) (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/nCode/eMudhra etc.), with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
6. Bidder then can login to the site through the secured login by entering their user ID/password and the password of the DSC/e-Token.

### **SEARCHING FOR TENDER DOCUMENTS**

1. There are various search options built in the Website, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc.
2. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the Tamil Nadu Govt. e-Procurement Portal, to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **PREPARATION OF BIDS**

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Bidders are requested to go through the NIT and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content

of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document and generally, they can be in PDF / XLS / RAR/DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My space or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.
5. The completed bid comprising scanned copy of the proof for the exemption from payment of EMD and necessary technical and commercial documents should be uploaded on the website along with signed and scanned copies of requisite certificates as are mentioned in the different sections in the tender document.

#### **ELECTRONIC SUBMISSION OF BIDS:**

The bidder shall submit online the requirements under EMD, qualification criteria and Technical Documents required and Price Schedule/BOQ. All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system generates a unique bid reference number which is time stamped. This shall be treated as acknowledgement of bid submission.

#### **PROCEDURE FOR SUBMISSION OF BIDS:**

- i. Bidder should log into the site well in advance for bid submission so that he/she can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- ii. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- iii. Bidder has to select the payment option as "Online" to pay the EMD amount as applicable and enter details of the instrument.
  - a) The online payment Gateway has been enabled for TANGEDCO in TN Tenders portal ([www.tntenders.gov.in](http://www.tntenders.gov.in)). The payment of EMD will be carried out by the Bidders only through online payment mode.
  - b) The EMD amount should be the exact amount and no excess or less amount should be transferred through **online payment gateway**. If excess or short, the tender status will be shown as invalid.
- iv) Bidder should prepare the EMD as per the instructions specified in the tender document. The scanned copy of proof of exemption of EMD has to be uploaded. Otherwise the uploaded bid will be rejected. After confirming the payment of EMD amount /uploading the proof for Exemption only, the

system will allow to submit the technical and financial bids. The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process. TNGECL shall not be responsible for any delay in submission.

TNGECL shall not be responsible for any delay in submission of EMD by any mode.

- v) A BOQ format for the price bid has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the BOQ format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the colored (Unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the file name. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
- vi) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- vii) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys.
- viii) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- ix) Upon the successful and timely submission of bids, (i.e. after clicking "Freeze Bid submission" in the portal) the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- x) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.
- xi) Department or Service Provider is not responsible for any failure such as a bad internet connection or power failure outside of their control. The bidder is responsible to ensure they have sufficient time to submit an electronic bid prior to closing date and time including the payment of any fees including the Bid security and getting e-receipt. In case of a failure in the system within the control of the service provider that may affect a bidding process, the contracting authority on his sole discretion will postpone the closing time at least 24 hours from the time of system recovery to allow bidders sufficient time to submit their bids.
- xii) The TNGECL may, at its discretion, extend the deadline for the submission of bids by amending the bidding document, in which case all rights and obligations of TNGECL and bidders subject to the previous deadline shall thereafter be subject to the deadline extended.



**LATE BIDS:**

The Electronic bidding system would not allow any late submission of bids after due date and time as per server time.

**MODIFICATION AND WITHDRAWAL OF BIDS:**

1. Bidders may modify their bids online before the deadline for submission of bids.
2. In case a bidder intends to modify his bid online before the deadline, the bidder need not make any additional payment towards the cost of bid processing. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. Modification and consequential re-submission of bids is allowed any number of times. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. The bidder may withdraw his bid by uploading his request before the deadline for submission of bids, however, if the bid is withdrawn, the re-submission of the bid is not allowed.
3. No bid may be modified after the deadline for submission of Bids.

**ASSISTANCE TO BIDDERS:**

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

## SECTION – I

### EARNEST MONEY DEPOSIT

1. Tenderer should pay the specified amount towards Earnest Money Deposit, as follows. Earnest Money Deposit:Rs.11,00,000/- (Rupees Eleven Lakhs only).
2. The Earnest Money Deposit specified above should be paid through online. The online EMD payment made by the bidders will be credited to common pool account created by Finance department, Government of Tamilnadu by integrating the payment gateway services of SBI. The EMD of successful bidder alone will be credited to TNGECL's bank account and auto refund of EMD will be made to unsuccessful bidders after issue of purchase order/ Award of contract through portal. The scanned copy of proof for payment of EMD (ie. e-payment receipt) has to be uploaded.
3. The EMD will not carry any interest.
4. The Tenderers who are having valid Permanent EMD at TNGECL Headquarters for an amount of Rs.40Lakhs and above under revised slab are exempted from payment of Earnest Money Deposit and are eligible to participate in the tender.

Scanned copy of Proof of PEMD(held on or after 03.12.21 only) shall be uploaded. The bids not uploaded with EMD/PEMD proof will be summarily rejected.

5. If the Tenderer desires to become a Permanent E.M.D. holder, he is advised to deposit the required amount with the TNGECL as Permanent E.M.D. well in advance, obtain a certificate from the Financial Controller/TNGECL and upload copy of the same along with the tender.
6. Any other mode of payment of EMD other than prescribed in this specification shall not be accepted towards EMD and the tenders shall be rejected if EMD is not paid in the prescribed manner.
7. Cheque will not be accepted towards EMD.
8. The following categories of industries are exempted from payment of Earnest Money Deposit.
  - a. Departments of the Government of Tamil Nadu.
  - b. Undertakings and Corporations owned by Government of Tamil Nadu.
  - c. Labour Contract Co-operative Societies registered within Tamil Nadu.
  - d. The Small Scale Industrial Units within Tamilnadu who have registered under UDYAM Portal for the tendered item shall upload UDYAM Registration certificate or any other valid registration certificate/proof as notified by the Government of India.  
The Small Scale Industrial Units located **outside** the state of **Tamil Nadu** are **not eligible** for **exemption** from payment of **EMD** against Udyam Registration Certificate even though registered in Udyam Portal for tendered items.

**NOTE:** SSI units having provisional registration certificate are not eligible for EMD Exemption.

- 9.0 Those Tenderers who are exempted from payment of EMD (Inclusive of PEMD holders) shall upload, in lieu of EMD, an undertaking on a non-judicial Stamp paper of value not less than Rs.500/- in the form as per Annexure-I duly initialed/endorsed by tenderer to the effect to pay as penalty an amount equivalent to EMD in the event of non-fulfillment or non-observance of any of the conditions stipulated in the contract consequent to such breach of contract.

The State Government, Public Sector undertakings who are exempted from payment of EMD should also pay as penalty an amount equivalent to the amount fixed as EMD in the event of non-fulfillment or non-observance of any of the conditions stipulated in the contract. The GST applicable for the above shall also be paid to TNGECL by the bidder.

And on non-acceptance of undertaking for exemption of EMD the offer of the bidder shall be summarily rejected.

- 10.0 Conditions for rejection of bids:

- a) TENDERS RECEIVED WITHOUT THIS UNDERTAKING IN LIEU OF EMD/PEMD WILL BE SUMMARILY REJECTED.
- b) Tender will be rejected if the undertaking is not signed / authenticated in all pages of undertaking.
- c) Signature of witnesses should be affixed at the end of undertaking along with details of name and address.

- 11.0 Others viz. Central and Other State Government Departments, Undertakings and Corporations other than Tamil Nadu shall have to pay Earnest Money Deposit.

- 12.0 The tenderers shall upload the audited attested copy of Profit and Loss account/Balance Sheet along with the proof for exemption from payment of EMD in order to ensure the SSI status of the firm based on the investment held in Plant and Machinery for extending exemption from paying EMD.

In case the investment held by them in Plant and Machinery as per their financial statement of Accounts exceeds the enhanced limits of composite criteria for classifying micro and small scale units as per MSMED Act, the General Manager, District Industries Centre concerned will be requested to verify the SSI status of the firm. Till receipt of confirmation from General Manager / District Industries Centre concerned, the exemption from paying EMD for SSI Units shall not be extended.

**13.0 Exemption from payment of EMD to Micro & Small Industries under MSMED Act 2006:**

- 13.1 Government of India, Ministry of MSME, vide Notification No.S.O.1364(E) dated 21.03.2025 has notified certain composite criteria for classifying the enterprises as Micro, Small and Medium Enterprises and insisted Udyam registration in "Udyam Registration Portal" to obtain an e-certificate viz. Udyam Registration Certificate.

**13.2 Composite Criteria:**

A composite criteria of investment in Plant and Machinery or equipments and turnover has been specified to classify an enterprises as Micro, Small and Medium.

The composite criteria stipulated in the said notification are to be complied by **the micro and small industries for claiming EMD exemption.**

### 13.3 **Classification of Enterprises:**

An enterprise shall be classified as a micro, small or medium enterprises on the basis of the following criteria, namely:--

- (i) a micro enterprise, where the investment in plant and machinery or equipment does not exceed 2.5 crores rupees and turnover does not exceed ten crore rupees;
- (ii) a small enterprise, where the investment in plant and machinery or equipment does not exceed twenty five crores rupees and turnover does not exceed one hundred crores rupees; and
- (iii) a medium enterprise, where the investment in plant and machinery or equipment does not exceed one hundred and twenty five crores rupees and turnover does not exceed five hundred crores rupees.

### 13.4 **Calculation of Turnover:**

In calculation of turnover of an enterprises, Exports of goods or services or both, shall be excluded while calculating the turnover of any enterprise whether micro, small or medium, for the purposes of classification.

The bidders should submit the certificate from Chartered Accountant, along with the bids whose turnover includes export proceeds, for ascertaining the turnover achieved on export of goods or services or both and included in the total turnover.

### 13.5 **Calculation of Investment:**

The Plant and Machinery shall have the same meaning as assigned to the plant and machinery in the Income Tax Rules, 1962 framed under the Income Tax Act, 1961 and shall include all tangible assets (other than land and building, furniture and fittings). The cost of certain items specified in the *Explanation I* to sub-section (1) of section 7 of the Act shall be excluded from the calculation of the amount of investment in plant and machinery.

The investment value in Plant and Machinery for the purpose has to be certified by a Chartered accountant and the same is to be uploaded in the bid in case the bidder claims EMD exemption.

### 13.6 **Registration of existing enterprises:**

- i. All existing enterprises registered under EM-Part-II or UAM shall register again on the Udyam Registration portal on or after the 1st day of July, 2020.
- ii. All enterprises registered till 30th June, 2020, shall be re-classified in accordance with the said notification.
- iii. The existing enterprises registered prior to 30th June, 2020, shall continue to be valid only for a period up to the 31st day of March, 2022.
- iv. An enterprise registered with any other organisation under the Ministry of Micro, Small and Medium Enterprises shall register itself under Udyam Registration.

### 13.7 **Updation and transition period in classification:**

An enterprise having Udyam Registration Number shall update its information online in the Udyam Registration portal, including the details of

the ITR and the GST Return for the previous financial year and such other additional information as may be required, on self declaration basis.

In case of an upward change in terms of investment in plant and machinery or equipment or turnover or both, and consequent re-classification, an enterprise will maintain its prevailing status till expiry of one year from the close of the year of registration.

In case of reverse-graduation of an enterprise, whether as a result of re-classification or due to actual changes in investment in plant and machinery or equipment or turnover or both, and whether the enterprise is registered under the Act or not, the enterprise will continue in its present category till the closure of the financial year and it will be given the benefit of the changed status only with effect from 1st April of the financial year following the year in which such change took place.

- 14.0 **a.** The following should be uploaded by the Vendor during submission of Techno-commercial bid for payment of EMD failing which the offer will be **SUMMARILY REJECTED.**
- i) The proof of Permanent EMD Holder.
  - ii) The attested copy of proof of exemption of EMD and documents in support of investment held in plant and machinery. The proof of exemption of EMD with an undertaking on a non-judicial Stamp paper of value not less than Rs.500/- in lieu of EMD as per Annexure-I duly initialed/endorsed by the tenderer.
- 15.0 The Earnest Money Deposit made by the tenderer will be forfeited after e-tender opening if:
- (a) He withdraws his tender or backs out after acceptance.
  - (b) He withdraws his tender before the expiry of validity period stipulated in the specification or fails to remit the security deposit.
  - (c) The tenderer violates any of the provisions of these regulations contained herein.
  - (d) The tenderer revises any of the terms quoted during the validity period.
  - (e) In the event of the documents furnished with the offer being found to be bogus or the documents contain false particulars, the EMD paid by the tenderers will be forfeited in addition to blacklisting them for future tenders/contracts in TNGECL.
  - (f) In case of tenderers participating on the strength of PEMD, an amount equivalent to the EMD for this specification will stand forfeited in the event of such tenderer committing any of the acts listed above.

## **SECTION – II**

### **BID QUALIFICATION REQUIREMENTS (BQR)**

**The BIDDER shall become eligible to bid on satisfying the following**

**"BID QUALIFICATION REQUIREMENT".**

1. The bidders should have previous experience in
  - (a) Design, Engineering, Manufacturing, Supply and Erection of Barrage / Dam gates. (or)
  - (b) Executed major rehabilitation / rectification works of Barrage/Dam gates.

The value of the work mentioned in 1(a) & (b) above should be more than 275 Lakhs and the above work should have been carried out at any State Electricity Boards or PSUs or Govt. of India or state government organization or Undertaking of Central Govt. or State Govt. during the preceding Ten years as on the date of tender opening.
2. At least one work carried out by the bidder as covered by BQR1 should have met a satisfactory performance of a minimum continuous period of two years as on the date of tender opening during any time within the preceding ten years. The bidders should furnish the end user certificate for the same Purchase Order/Works Contract Order furnished against BQR(1).
3. The annual turnover of the bidder shall be more than Rs.2,76,65,000/- in any one of the last three financial years preceding the year 2024-25 (2021-22, 2022-23 and 2023-24). In case of bidders who happen to be companies registered under companies Act-1956, attested copy of the Audited financial statements like, Profit and loss A/c and Balance sheet with UDIN for the immediately Preceding 3 years (2021-22, 2022-23 and 2023-24) may be furnished and in case of others, the annual turnover certified by the practicing Chartered accountant with UDIN or attested copy of income tax statements containing annual turnover for all the 3 years should be enclosed as documentary proof to ensure the above turnover.
1. Note:1. The bidders should upload the documentary evidences for the above along with the offer only. All the above documents shall be duly attested by a competent authority like Notary public, Gazetted officer etc.
2. The end user certificate should necessarily contain the date of completion of work, date of commissioning and date of issue specifically to ascertain the period of satisfactory performance. If any clarification or need arises in the end user certificate it may be obtained separately by the tender inviting authority from the particular utility who have issued Purchase order or end user certificate.
3. The offer of the bidders who have stated to be previous suppliers to TNEB / TANGEDCO/TANTRANSCO/TNPDCL/TNPGCL/TNGECL will be considered for further evaluation, even though they have not enclosed copies of purchase orders/end user certificate after ensuring with concerned purchase order placing authorities.

**THE OFFERS OF BIDDERS NOT SATISFYING THE ABOVE BID QUALIFICATION REQUIREMENTS WILL BE SUMMARILY REJECTED.**

**Sd/-**

**CHIEF ENGINEER/HYDRO**

## SECTION – III

### REJECTION OF TENDERS

- I. Tender will be **SUMMARILY** rejected if
  - (a) The EMD requirements are not complied with.
  - (b) Bid Qualification Requirements are not fully met.
  - (c) Received by Telex/Telegram/E-Mail/fax.
  - (d) The price bid/price schedule is indicated/uploaded along with the technical bid, in any format.
  - (e) The details of the e-receipt do not tally with the details available in the scanned copy and the data entered during bid submission time.
  - (f) The BOQ (Price bid) file is found to be modified by the bidder.
  
- II. Tender is LIABLE to be rejected, if it is:
  - a. Not covering the entire scope of work.
  - b. If the declaration as specified in Schedule E and F are not signed and uploaded.
  - c. With validity period less than that stipulated in this specification.
  - d. Not in conformity with TNGECL's Commercial terms and Technical Specifications (Section - V & VI).
  - e. Received from a tenderer who is directly or indirectly connected with Government Service or TNGECL Service or Service of local authority.
  - f. From any black listed Firm or Contractor.
  - g. From a tenderer whose past performance/Vendor rating is not satisfactory.
  - h. Not containing all required particulars as per Schedules.
  - i. Submission after the expiry of the due date and time.
  - j. Documents furnished by the Tenderers along with their offer being found to be bogus or contain false particulars.
  - k. Questionnaire as per Schedule-G is not duly filled up and properly signed by the tenderer.
  - l. Not furnished the GSTIN in the offer.
  - m. Not furnished the HSN code in the offer.
  - n. Not furnished the separate main EPF & ESI code number
  - o. Even though the Bidder meets the qualifying criteria, they are subject to disqualification if they have record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.

## **SECTION – IV**

### **GENERAL INSTRUCTIONS TO TENDERERS**

- 1.1 E-tender in Two Part System (I) Technical Bid with Commercial terms but without Price Bid and (II) Price Bid will be received through e-tendering for and on behalf of TAMILNADU GREEN ENERGY CORPORATION LIMITED, herein after referred as TNGECL, so as to upload on or before the due date prescribed. All the tenders shall be uploaded and submitted strictly in accordance with the instructions set forth herein. THE TENDERERS WHO DO NOT FULFILL THE "BID QUALIFICATION REQUIREMENTS "AS PER SECTION – II NEED NOT PARTICIPATE IN THE TENDER. OFFERS NOT SATISFYING THIS "BID QUALIFICATION REQUIREMENTS" WILL NOT BE CONSIDERED AND WILL BE SUMMARILY REJECTED.
- 1.2 The Tamil Nadu Transparency in Tenders Act 1998 and Tamil Nadu Transparency in Tender Rules 2000 and subsequent amendments thereof are applicable to this Tender Specification.
- 1.3 The Specification is available in TANGEDCO web site ([www.tangedco.gov.in](http://www.tangedco.gov.in)) and Government web site (<https://tntenders.gov.in>)/Government website ([www.tenders.tn.gov.in](http://www.tenders.tn.gov.in)) and may be down loaded free of cost.
- 1.4 The tenderers who have downloaded the specification from TANGEDCO website ([www.tangedco.gov.in](http://www.tangedco.gov.in))/ Government website (<https://tntenders.gov.in>)/Government website ([www.tenders.tn.gov.in](http://www.tenders.tn.gov.in)) shall ensure whether any clarification/ amendment is issued to the specification before submission of their tender, by visiting the above websites.

### **2.0 SCOPE OF WORK:**

- 2.1 Design, Manufacture, Supply, Erection, Testing & Commissioning of Five numbers (Gate No.8,9,10,11&12) new vertical lift type fixed Wheel barrage gates (15mtrs X 9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/Uratchikottai, Erode Generation Circle as per the technical specifications.

Tenderers are requested to inspect the site positively before tendering so as to obtain additional information if any.

- 2.2 The tenderers alone will be responsible for all the consequences for ignoring the advice of site visit and TNGECL will in no way be liable for any claim on this ground at a later date.
- 2.3 The tenderers are requested to contact Superintending Engineer/Erode Generation Circle regarding any further technical details and field visit to inspect the site.

### **3.0 SUBMISSION OF TENDER OFFER:**

The Tenderer is expected to examine all instructions terms and Schedules detailed in the Specification and submit the Schedule of prices and other



required particulars in the schedules called for in this specification, only as per the formats prescribed, herein.

### **3.1 QUESTIONNAIRE FILLING:**

A Questionnaire is appended as Schedule-G in this specification for Bid Qualification Requirements, Commercial and Technical details. It is obligatory on the part of the tenderer to furnish all details as per the "Questionnaire". In case, this is not filled up and signed at the bottom of each page of the questionnaire and uploaded with the offer, the Bid will be liable for rejection.

### **4.0. TWO PART TENDER:**

The e-Tenders shall be in Two Parts as detailed below.

#### **i) Part I shall contain:**

(a) Proof for payment of PEMD/ PEMD holders held on or after 03.12.21 only/ Exemption from payment of EMD & Undertaking in lieu of EMD as per Annexure-I

(b) Documentary evidences to satisfy the Bid Qualification Requirement and all required technical and commercial documents as required in the Specification.

#### **ii) Part II shall contain the PRICE BID (BOQ) only.**

If the price bid/price schedule is indicated/ uploaded along with the technical bid, the offer will be summarily rejected.

4.0.1. The Tender Offer consisting of Schedules-B to G should be filled up and signed by the Tenderer or any person holding Power of Attorney authorizing him to sign on behalf of the Tenderer before submission of the Tender. The date of signature should invariably be indicated.

4.0.2. In the event of tender being submitted by other than a firm, it must be signed by a partner (copy of partnership deed should be uploaded) and in the event of the absence of any Partner, it shall be signed on his behalf by a person holding a Power of Attorney authorizing him to do so, Certified copies of which shall be uploaded.

4.0.3. Tender submitted on behalf of companies registered under the Indian Companies Act, shall be signed by person duly authorised to submit the tender on behalf of the company and shall be accompanied by certified true copies of the resolutions, extracts of the Articles of Association, special or general Power of Attorney etc to show clearly the title, authority and designation of persons signing the tender on behalf of the company.

4.0.4. The tenderer should furnish the GSTIN numbers in the offer.

### **4.1. Modifications/Clarifications to Tender Documents:**

4.1.1. At any time after the commencement of e-Tender and before the closing of the event, TNGECL may make any changes, modifications or amendments to the tender documents and same will be intimated to the concerned Vendors through corrigendum which can be downloaded from the Vendor login.

4.1.2. In case any tenderer asks for a clarification to the tender documents before

48 hours of opening of tenders, the CE/Hydro/TNGECL/ Chennai-2 will clarify the same.

- 4.1.3. If any tenderer raises clarifications after the opening of the tender, the clarified reply issued by the Chief Engineer/Hydro, TNGECL, Chennai-600 002 on the clarifications will be final and binding on the Tender.
- 4.1.4. If the tenderer finds discrepancies/omissions or any ambiguity in any of the terms and conditions stipulated in this specification, he shall get it clarified, in writing at least 48 Hours before opening of the tender, from the Chief Engineer/Hydro/TNGECL, 5<sup>th</sup> Floor, NPKRR Maaligai, Electricity Avenue, 144, Anna Salai, Chennai-600002. All such clarifications/interpretations shall form a part of specification. Verbal clarifications and information obtained by the tenderer shall not in any way be binding on the Corporation. If this is not done and subsequent to the opening of the tenders, it is found that the doubt about the meaning or ambiguity in the interpretation of any of the terms and conditions stipulated in the specification are raised by the tenderer, either in this tender or by a separate letter, the interpretation or clarification issued by the Chief Engineer/Hydro, Tamil Nadu Green Energy Corporation Limited, Chennai – 2 on such of those terms and conditions of the Tender Document as may be raised by the tenderer shall be final and binding on the tenderer.
- 4.1.5. All tender offers shall be prepared by typing or printing in the formats enclosed with this specification.
- 4.1.6. All information in the tender offer shall be in ENGLISH only. It shall not contain interlineations, erasures or over writings except as necessary to correct errors made by the tenderer. Such erasures or other changes in the tender documents shall be attested by the persons signing the tender offer.
- 4.1.7. The offer shall contain full information asked for in the accompanying schedules and elsewhere in the specification.
- 4.1.8. Tenderer shall bear all costs associated with the participation in the e-Tender, and the PURCHASER will in no case be responsible or liable for these costs.
- 4.1.9. No offer shall be withdrawn by the tenderer in the interval between the deadline for submission and the expiry of the period of validity specified/extended validity of the tender offer.
- 4.1.10. The Tenderers are requested to furnish the exact location of their factories with detailed postal address, Pin Code, Telephone and Fax Nos., e\_mail etc., in their tender so as to arrange inspection by the Corporation if considered necessary.
- 4.1.11. It will be the responsibility of such tenderer to fully be informed himself of all local conditions and factors which may have any effect on the equipments/materials/execution of works covered under these specification and documents.

4.1.12. It must be understood and agreed that such factors are properly investigated and considered while submitting the proposals. No claim for financial adjustment to any tender awarded under this specification and document will be permitted by the TNGECL. Neither any change in the time schedule of the tender nor any financial adjustment arising thereof shall be permitted by the TNGECL, which are based on the lack of such clear information or its effect on the cost of the "supply" to the tenderer.

4.1.13. Tenders received from Agents will not be considered.

4.1.14. In the case of ambiguous or contradictory terms / conditions mentioned in the bid, interpretation as may be advantageous to the purchaser may be taken without any reference to the Tenderer.

## **4.2. QUOTATION OF RATES:**

4.2.1. Rates should be quoted figures i.e., integers only.

4.2.2. Offers giving lump sum price, without giving their breakup as per details required in the attached Price Schedule-A shall be liable for rejection.

## **4.3. PRINTED TERMS AND CONDITIONS IN TENDERS:**

Supplier's printed terms and conditions will not be considered as forming part of the tender under any circumstances.

## **4.4. INCOMPLETE TENDERS:**

Tender, which is incomplete, obscure or irregular is liable for rejection.

## **5.0. TENDER OPENING:**

### **5.1. OPENING OF COMMERCIAL & TECHNICAL BIDS WITHOUT PRICE (PART-I): (EMD & all other documents without Price Bid)**

5.1.1 The Tender offers except price bid will be opened electronically at 14.30Hrs. on the date notified at the Office of the Superintending Engineer/Hydro (Electrical), 5<sup>th</sup> Floor, Eastern Wing, NPKRR Maaligai, 144, Anna Salai, Chennai-600 002, through <https://tntenders.gov.in> at scheduled date and time and this could be viewed by bidders online on the date and time mentioned as above.

5.1.2 In all cases, the amount of bid security and validity of the bid shall be scrutinized. Receipt of original instrument of bid security shall be confirmed by the Employer. Thereafter, the bidders' names, the presence or absence of Bid security and such other details as the Employer may consider appropriate, will be recorded as bid opening summary and the same will be uploaded on the e-procurement portal after techno commercial bid opening.

5.1.3. If the date set for tender opening happens to be a holiday, the tenders will be opened on the succeeding working day without any changes in the timings indicated.

## **5.2. OPENING OF THE PRICE BIDS: (PART - II)**

- 5.2.1 The date and time of opening of Price Bids shall be later notified through registered e-mail to the Bidders who fulfill the BQR criteria and whose bids are found to be commercially and technically acceptable.
- 5.2.2 The Bidders' names, the Bid prices and such other details as the Employer may consider appropriate, will be recorded as bid opening summary and uploaded by the Employer on the e-procurement portal. Any bid price, which is not submitted through the e-procurement system, will not be taken into account in Bid Evaluation.
- 5.2.3 If the date set for tender opening happens to be a holiday, the tenders will be opened on the succeeding working day without any changes in the timings indicated.

## **6.0. INFORMATION REQUIRED AND CLARIFICATIONS:**

- 6.1. In the process of examination, evaluation and comparison of tender offers, the TNGECL may at its discretion, ask the Tenderer for a clarification of his offers. All responses to requests for clarifications shall be in writing to the point only. No change in the price or substance of the offer shall be permitted.
- 6.2 The TNGECL will examine the tender offers to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the offers are generally in order.
- 6.3 The Tender offers shall be deemed to be under consideration immediately after they are opened and until such time official intimation of award / rejection is made by the Tender Accepting Authority to the tenderers. The Tenderers shall not make attempts to establish unsolicited and unauthorized contact with the Tender Inviting Authority, Tender Accepting Authority or Tender Scrutiny Committee after the opening of the tender and prior to the notification of the award and any attempt by any tenderers to bring to bear extraneous pressures on the Tender Accepting Authority shall be sufficient reason to disqualify the tenderer.
- 6.4 After acceptance of the tender by the Tender Accepting Authority, the details will be arranged to be published in the Tender Bulletin of Tamil Nadu Government.
- 6.5 Mere submission of any Tender offer connected with these documents and Specification shall not constitute any agreement. The tenderer shall have no cause of action or claim, against the TNGECL for rejection of his offer. The TNGECL shall always be at liberty to reject or accept any offer or offers at its sole discretion and any such action will not be called into question and the Tenderer shall have no claim in that regard against the TNGECL.

## **7.0. PROCESS TO BE CONFIDENTIAL:**

- 7.1. Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

## **8.0 EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS:**

- 8.1. Prior to the detailed evaluation of Bids, the Employer will determine whether each Bid (a) meets the eligibility criteria, (b) has been properly signed, (c) is accompanied by the required securities and documents and (d) is substantially responsive to the requirements of the Bidding documents.
- 8.2. A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the Bidding document, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 8.3. If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

## **9.0. CORRECTION OF ERRORS:**

The e- Procurement system automatically calculates the total amount from the unit rates and quantities and the system also automatically populates the amount in words from the amount in figures and therefore there is no scope of discrepancy and need for arithmetic correction.

## **10.0 EVALUATION AND COMPARISON OF TENDER OFFERS:**

- 10.1 The tenders will be evaluated strictly as per the Tamil Nadu Transparency in Tenders Act, 1998 and the Tamil Nadu Transparency in Tender Rules, 2000 and its subsequent amendments till date.
- 10.2 The tender offers received for consideration will be examined to determine whether they are in complete shape, all required data have been furnished, the tender offer is properly signed and are generally in order and whether the tender offer conforms to all the terms and conditions of the Tender document without any deviation.

- 10.3 For the purpose of evaluation of the tender offers, the following factors will be taken into account for arriving at the evaluated price.
- a) The rate of CGST, SGST, and IGST as applicable both in percentage and amount shall be indicated in the offer along with HSN code (Harmonised System of Nomenclature Code).
  - b) The evaluated price shall be arrived in compliance with the provisions of GST on the Transaction value i.e. (Ex works price of material + Packing & Forwarding+ Freight & Insurance) + GST. In case of import of goods would be treated as interstate supplies and would be subject to IGST in addition to applicable customs duty.
  - c) Since GST is enacted wherein all taxes & duties are subsumed, price evaluation shall be inclusive of applicable GST in all cases, i.e. even if the bidders are only within the State or bidders are within the State and outside TN.
- 10.4 Tenderers shall quote for all the tendered items to have a composite offer for evaluation.
- 10.5 The offers will be evaluated as a whole package.
- 10.6 The price quoted for the works will be arrived at as detailed in Clause 10.03. From this arrived rates, the lowest offer will be considered.
- 10.7 **Tie breaker:** When more than one bidder have quoted same value during bid submission and accepted in Finance evaluation, Evaluator is allowed to select any one combination of bidder value (i.e.L1 bidder) to initiate for finance bid resubmission for tie breaker.
- 10.8 The rates quoted by the eligible lowest tenderer in the open tender shall be compared with the prevailing market rate and the rates of previous period and if the Tender Accepting Authority is of the view that the quoted rates are too high, the rates will be negotiated and the rate will be determined.
- 10.9 **Online negotiation:** Provision to go for on line negotiation has been provided for the Tender Evaluator. The online negotiation process in the portal is similar to the process for negotiation under tie breaker process. However, financial rebid submission can be invited from only one bidder.

## **11.0 VALIDITY:**

- 11.1 The Tender offer shall be kept valid for acceptance for a period of **180 days** from the date of opening of offers. The offers with lower validity period are liable for rejection.

- 11.2 Further, the tenderer shall agree to extend the validity of the bids without altering the substance and prices of the bid for further periods, if any required by the TNGECL.

## **12.0 RIGHTS OF THE TNGECL:**

Notwithstanding anything contained in this specification, the TNGECL reserves the right to:

- (a) Accept the lowest tender.
- (b) Revise the quantities at the time of placing orders to the extent of + or – 25%.
- (c) to vary the completion period/delivery period based on the requirement and contingencies at the time of placing the purchase order
- (d) Reject any or all the tenders or cancel without assigning any reasons thereof.
- (e) Recover losses if any sustained by TNGECL, from the successful tenderer who pleads his inability to supply and backs out of his obligation after award of contract. The Security Deposit cum performance guarantee paid shall be forfeited in such cases.
- (f) To cancel the orders for not keeping up the delivery schedule.
- (g) To split the tender quantity & place orders on one or more than one firm to meet the delivery requirement.
- (h) After negotiation with the tenderer and before placing the order accepting the tender, if the tender accepting authority decides that the price quoted by such tenderer is high, the tender is liable for rejection
- (i) To Relax or waive or amend any of the conditions stipulated in the tender specification wherever deemed necessary in the best interest of the TNGECL.
- (j) The purchaser reserves the right to request for any additional information and also reserves the right to reject or accept the proposal of any tenderer, if in the opinion of the purchaser, the qualification data is incomplete or in the opinion of the TNGECL the bidder is found not qualified to satisfactorily perform the contract.

### **NOTE :-**

In the event of the documents furnished with the offer being found to be bogus or the documents contain false particulars, the EMD paid by the tenderers will be forfeited in addition to blacklisting them for future tenders/contracts in TNGECL.

## **13.0 DEVIATIONS:**

- 13.1 The tenderer shall furnish, if there are any deviations in the commercial and technical terms in the Schedules B & C Annexed. Deviations mentioned elsewhere other than Schedule B & Schedule C will not be considered. If no deviations are furnished in said schedules, it will be construed that the tenderer is accepting all terms specified in the specification. Similarly, if any deviations are furnished in the said schedules, it will be construed that these are the only deviations and the tenderer is accepting all other terms of the specification and the offer will be taken for evaluation accordingly.

13.2 THE OFFERS OF THE TENDERERS WITH DEVIATIONS IN COMMERCIAL TERMS AND TECHNICAL TERMS OF THE TENDER DOCUMENT ARE LIABLE FOR REJECTION.

13.3 NO ALTERNATE OFFER WILL BE ACCEPTED.

13.4 Any attempt by any tenderer to bring/ to bear extraneous pressure on Tender Accepting Authority shall be sufficient reasons to disqualify the tenderer.

**14.0. BAR OF JURISDICTION:**

Save as otherwise provided in Tamil Nadu Transparency in Tender Act 1998 no order passed or proceeding taken by any officer or authority under this Act shall be called in question in any Court, and no injunction shall be granted by any court in respect of any action taken or to be taken by such officer or authority in pursuance of any power conferred by or under the above Act.

**15.0. APPEAL:**

Any tenderer aggrieved by the order passed by the Tender accepting Authority under Section-10 of the Tamil Nadu Transparency in Tenders Act 1998 may appeal to the Government within 10 (Ten) days from the date of receipt of order.

**16.0 PERMANENT ACCOUNT NUMBER (PAN) & GSTIN REGISTRATION NUMBER :**

The tenderers are requested to furnish the Permanent Account Number and **GSTIN** Registration number in their offer.

**17.0** The tenderer who is an industrial company shall state clearly whether the company is a potentially sick Industrial Company in terms of Section 23 or 25 of the sick Industrial Companies act 1985.



**SECTION: V****COMMERCIAL****1.0 PRICE:**

- 1.1 The tenderers are requested to quote only FIRM Price valid for the entire duration of contract.
- 1.2 The prices quoted should be Unit all inclusive price for Design, Manufacture, Supply, Erection, Testing & Commissioning of Five numbers new vertical lift type fixed Wheel barrage gates (Gate No.8,9,10,11&12) (15mtrs X 9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/Uratchikottai, Erode Generation Circle as per the technical specifications. The split up prices for the various works involved in the Design, Manufacture, Supply, Erection, Testing & Commissioning of Five numbers new vertical lift type fixed Wheel barrage gates (Gate No.8,9,10,11&12) (15mtrs X 9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/ Uratchikottai, Erode Generation Circle as per the technical specifications shall be furnished separately for each item.

The prices quoted should be Unit all inclusive price including Ex-works, Packing and Forwarding, Freight and Insurance charges with applicable rate of GST separately to cover transit risk & unloading at site for the supply portion of the work. Erection portion of the work should includes labour charges and insurance towards risk during erection, testing & commissioning till handing over to TNGECL and dismantling of existing gates. The applicable rates of GST should be indicated separately. Other applicable taxes and duties, if any may also be furnished. A format for price is given in Schedule 'A'.

Applicable GST (CGST, SGST or IGST) shall be quoted separately. A format for price is given in Schedule 'A' and the price shall be quoted online only in the BOQ (Price schedule) in .xls format.

- 1.3 All the tests specified shall be conducted at TENDERER'S COST.
- 1.4 The L1 tenderer shall furnish the declaration in respect of passing of Input Tax Credit (ITC) benefit in the format as stipulated in Annexure-IV of this specification. Further in the event if the L1 tenderer specifies the ITC benefit as nil, the same shall be supported with certificate from the Chartered Accountant.
- 1.5 **PERMANENT ACCOUNT NUMBER AND GSTIN NUMBER:**  
The Tenderer shall indicate the Permanent Account No. in Schedule 'G' of the specification and should enclose the details of PAN issued by Government of India, Income Tax Department and GSTIN number of the firm with proof with the tender.

## 2.0 Goods and Services Tax [GST]:

- i. Goods and Services Tax [GST] as a modern law, has been brought after Article 366(12A) of the Constitution as amended by 101st Constitutional Amendment Act, 2016. GST is an indirect tax system, commonly used by both the Central Government and the State/UT *to final consumption with credit of taxes paid at previous stages available as set off. In a nutshell, only value addition will be taxed and burden of tax* Governments on goods and services. GST is *a destination based tax on consumption of goods and services. It is proposed to be levied at all stages right from manufacture up is to be borne by the final consumer.* GST has been rolled out w.e.f. 01.07.2017, across India.
- ii. The GST to be levied by the Centre on intra-State supply of goods and / or services would be called the Central GST (CGST) and that to be levied by the States/Union territory would be called the State GST (SGST)/ UTGST. Similarly, Integrated GST (IGST) will be levied and administered by Centre on every inter-state supply of goods and services.
- iii. Any supplier of goods and service Provider of services who makes a taxable supply with an aggregate turnover of over Rs.20 lakhs in a financial year is required to obtain GST registration. In special category states, the aggregate turnover criteria is set at Rs.10 lakhs. in simple words Every business whose taxable supply of goods or services under GST (Goods and Service Tax) and whose turnover exceeds the threshold limit of Rs.20 lakh/10 Lakh as applicable will be required to register as a normal taxable person.
- iv. *GST Registration Number:* TNGECL has migrated into GST regime on 15.06.2017 by duly uploading various mandatory data as required by the GST portal. The provisional ID issued to TNGECL is [33AAKCT7634G1Z6](#). The details are also posted in TANGEDCO web portal.
- v. GST Registration Number or GSTIN is 15 Digit identification number which is allotted to each applicant who applied for GST Registration. GST Number is completely based on the Pan Number and State code. First two digit represent the state code and another 10 digit represent the PAN number of the client, one digit represent the entity code (Like proprietorship or partnership etc), one digit is blank and last one is represent check digit.
- vi. *Transaction Value:* The value of a supply of goods or services or both shall be the transaction value, which is the price actually paid or payable for the said supply of goods or services or both where the supplier and the recipient of the supply are not related and the price is the sole consideration for the supply. Sec 15(1) states that value of supply of goods and service shall be the transaction value i.e. the price actually paid or payable.  
The conditions for accepting the transaction value are  
a) Supplier and the recipient of the supply are not related.  
b) Price is the sole consideration for the supply.

- vii. *Composition Scheme:* Composition scheme specifies that registered person whose turnover in the preceding financial year is below certain specified limit (Currently Rs.75 lakhs) may intimate the proper officer to pay in lieu of tax payable by him an amount calculated at such rate may be specified.

*Eligibility for composition scheme:* Sec10(2) of the central Goods and Services Tax Act, 2017 states that the registered person shall be eligible to opt under sub- section (1), if-

- . He is not engaged in the supply of services other than supplies referred to in clause (b) of paragraph 6 of Schedule II;
- . He is not engaged in making any supply of goods which are not leviable to tax under this Act;
- . He is not engaged in making any inter-State outward supplies of goods;
- . He is not engaged in making any supply of goods through an electronic commerce operator who is required to collect tax at source under section 52; and
- . He is not a manufacturer of such goods as may be notified by the Government on the recommendations of the Council.

- viii. *Supply of Service and Goods:* When there is a combined supply of many goods /services, it has to be determined whether it is a Composite supply or mixed supply of goods or services

(a) *COMPOSITE SUPPLY:* A composite supply is the one where all the goods or services or a combination has to be supplied together i.e., naturally bundled and there would be a Principal Supply that could be identified (Ex. Supply of Machinery with packaging, insurance and freight – the principal supply is machinery). In this case, the rate of principal supply will be applied on entire value.

(b) *MIXED SUPPLY:* A mixed supply is where the goods or services or the combination thereof which could be individually supplied (like Pizza and Coke) but sold together at a single price. In this case, the highest rate to the good in that mix is applied on all the goods. The GST shall be applicable at appropriate prevailing rates as notified by GST Act. In the event of delay in execution of contract, the GST rate prevailing on the scheduled period or on the actual date of execution, whichever is less only will be admitted.

The bidders should have registered under GST Act and furnish GSTIN. In the event of contractor is within TN, SGST & CGST shall apply and if the contractor is outside TN, IGST shall apply.

## 2.1 Goods and Services Tax:

2.1.1 The amount of CGST, SGST, and IGST as applicable shall be indicated in percentage payable and amount separately in the tender offer.

2.1.2 In case of delayed completion, the GST prevailing on the date of completion or on the last day of the contractual completion period whichever is LESS will

be admitted. For both the cases, the contractor shall furnish documentary evidence while submitting the bills for payment.

It is the responsibility of the tenderer to make sure about the correct rates of duty liveable on the material/labour at the time of tendering. If the rates assumed by the Tenderer are less than the current rates prevailing at the time of tendering, the TNGECL will not be responsible for the mistake. If the rates assumed by the tenderer are higher than the current rates prevailing at the time of tendering, the GST prevailing at the time of tendering will only be paid.

2.1.4 Any Variation in GST due to statutory Variation within the contract delivery date shall be considered by the TNGECL.

2.1.5 In case of delayed completion, the GST prevailed on the date of actual completion period applicable or on the date of contractual date of completion whichever is less shall be admitted.

2.1.6 TDS under GST is applicable in the proposed contract at the rate of 2% on each and every invoice of contract.

2.1.7 TDS under section 194 Q of IT Act:

Any person, being a buyer, who is responsible for paying any sum to any resident for purchase of goods of value (or) aggregate value exceeding Rs.50 lakhs in any previous year, shall, at the time of credit of such sum to the account of the seller (or) at the time of payment, whichever is earlier, shall deduct an amount equal to 0.1% of such sum exceeding Rs.50 Lakhs as TDS under Section-194Q of IT Act. The supplier of goods is required to furnish the PAN to TNGECL for making the payment. In case the suppliers do not have PAN, TNGECL is required to deduct tax at higher rate as per the provisions of section 206AA. In case of specified person i.e., Any person who has not filed Income Tax return for two previous years immediately before the previous year in which TDS is required to be deducted and the time limit for filing of income tax return u/s 139(1) of the Income Tax Act, 1961 has expired provided the total TDS & TCS in INR is Rs.50,000 (or) more in each of the two previous years the TDS rate u/s 194Q will apply at higher rate u/s.206AB.

The provisions of this section shall not apply to the transactions on which tax is deductible under any other provisions of the Income Tax Act 1961 and also on the transactions in which Tax is collectible under the provisions of Section 206C.

On purchase of goods/materials, TNGECL shall have the primary and foremost obligation to deduct Tax at source and no tax shall be collected on such transaction u/s.206C(1H). TDS u/s 194Q is also applicable on the Advance paid for purchase of goods.

In case of works contract wherein supply and erection portions are separable, the value of supply of goods exclusive of GST will be subject to deduction of TDS under section 194Q. On the other charges i.e. erection,

testing, commissioning and maintenance charges, TDS under section 194C will apply and hence TDS u/s 194Q will not apply.

The above provisions comes into effect from 01.07.2021 onwards and hence no TCS under Section 206C(1H) has to be paid by TNGECL on purchase of Goods. Accordingly, TNGECL will deduct TDS under section 194Q on all the purchase of goods exceeding the threshold limit i.e. aggregate credit (or) payment exceeds Rs.50 Lakhs. It is mandatory for vendor to submit the declaration format in Annexure A to determine the applicability of TDS rate u/s 206 AB.

In case any procurement of goods/materials are made by TNGECL from overseas supplier and the payment is not taxable to the overseas supplier in India, the TDS under section 194Q will not apply.

## **2.2 GST ON FORFEITURE OF SD:**

- 2.2.1 Forfeiture of Security Deposit if any arises, will attract GST @ 18% and the GST will be collected additionally from the Supplier.

## **2.3 Verification of GSTR-2A:**

The GSTR-2A for verification of GST remittance will be verified at the time of P.O closure. In case of non-filing of GSTR-1 by the suppliers, the release of SD and retention amount will be withheld.

## **3.0 INCOME TAX:**

Income Tax will be recovered from the contractors every running bill at the prevailing rate of tax in force with amendments issued from time to time as per the Income Tax Act.

## **4.0 INSURANCE:**

- 4.1 Contracting firms shall arrange insurance for the equipment and all its accessories being supplied by them, through any of the authorized insurance companies. The equipment shall be insured to cover transport (from Warehouse) and 90 days storage risk at site. The damages, if any, during transit will be reported within 30 days of receipt of materials. It will be the responsibility of the successful tenderer to replace the defective / damaged materials and make good the shortages and other losses in transit, free of cost, lodge and recover claim from Insurance, Under-writers/Carriers.
- 4.2 Contracting firms shall also arrange insurance for dismantling, erection, testing & commissioning of the equipments on the above lines.

## **5.0 PACKING AND FORWARDING:**

The equipment and all its accessories shall be securely packed so as to withstand handling during transport & subsequent storage and dispatched, freight paid, duly insured, at successful tenderer's risk and cost. The packing may be in accordance with the manufacturer's standard practice. The successful tenderer is responsible for ascertaining the facilities that exist for

road transport to site. Each package shall be clearly marked and contain detailed packing list, such as gross weight, net weight etc. The successful tenderer is solely responsible for any loss or damage during transport. The dispatch of materials shall be made only after the approval of test certificates by the TNGECL. The equipment / Materials shall be unloaded at destination Site by the successful tenderer free of cost. Proper instructions for storage at site may also be furnished to the consignee well in advance.

## **6.0 PAYMENT:**

- 6.1 a) Payment for the supplies/works will be made by RTGS/NEFT on any one of the Nationalized Banks/Scheduled Banks approved by Reserve Bank of India in Tamil Nadu. The Bank charges involved in making the payment will be to the account of the Tenderer.

(b) The successful Tenderer has to furnish the following details of the Bank account to which the payment be credited.

1. Name of the Account Holder
2. Name of the Bank
3. Branch
4. Account No
5. IFSC code of the Branch

- 6.2 Payments will not be made for equipments/materials damaged during transit. All defective materials shall be replaced by the successful tenderer free of charge.

### **6.3 (a) For the works completed within the contractual Completion period:**

95% of the all inclusive price of the contract will be paid within 90 days after completion of work and successful commissioning of the Gates in all respects and on receipt of contractor's bill with required documents and the balance 5% will be made within 90 days after closure of work Contract order.

### **(b) For the works completed beyond the contractual Completion period:**

95% of the all inclusive price of the contract after deducting the appropriate amount of L.D will be paid within 90 days after completion of work and successful commissioning of the Gates in all respects and on receipt of contractor's bill with required documents and the balance 5% will be made within 90 days after completion of the execution of contract and after closure of work Contract order.

(C) For delayed payments, if any, simple interest for the delayed payment shall be paid by TNGECL to vendors at the SBI three months MCLR rate for the delayed period beyond 90 days.

The simple interest shall be calculated for the delayed period by adopting the 3 months MCLR of SBI prevailed at the time of signing of agreement and in the cases where no agreement is signed, only P.O/WCT is issued, the date of the P.O/WCT shall be taken as base date to ascertain the interest rate.

(d) Payments for the every Barrage gate will be made after successful commissioning of the respective Barrage gate.

- 6.4 In case of delay in supply, the materials will be accepted subject to the following conditions.
- (a) There should be no declining trend in prices.
  - (b) Payment will be released as per the recent purchase order rate or lowest rate obtained during the recent tenders opened subject to levy of liquidated damage for belated supplies.
  - (c) TNGECL reserves the right to accept or reject the delayed supplies without assigning any reason therefore and take action as per the other terms and conditions of this specification.
- 6.5 The bills for payment will be passed only after the approval/ acceptance of the following:
- (a) Security Deposit cum Performance guarantee for 5% value of the order.
  - (b) Test certificate.
  - (c) Guarantee Certificate.
  - (d) Undertaking towards Jurisdiction for Legal Proceedings.
  - (e) Acceptance of the Proof for payment of contributions – both Employer's and Employee's contributions made to the EPF & ESI Organizations, by SE/Erode GC in accordance with the **Clause 43(e)** of this section.
  - (f) Acceptance of the undertaking as per **Annexure-VII** to ensure the remittance of EPF & ESI, Employee and Employer contribution made to the EPF & ESI Organizations, by SE/Erode Generation Circle, in accordance with the **Clause 43(f)** of this section.
- 6.6 The successful tenderer should dispatch the materials only after getting dispatch clearance. If the successful tenderer dispatches the materials without the prior approval of the purchaser, then the purchaser shall not be responsible for any demurrage or wharfage or both and only the successful tenderer should bear any expenditure arising out of such unapproved dispatches.
- 6.7 The works contract order will be closed on completion of installation and commissioning of all five numbers Barrage gates (Gate No.8,9,10,11&12) with counter weight and new hoisting mechanism.
- 6.8 TNGECL cannot avail input tax credit from suppliers whose turnover exceeds Rs.5 Crores without an e-invoice or e-invoiced debit note or e-invoiced credit note. Bidders having annual turnover exceeding Rs.5 crores who participates in this tender shall claim payment by raising e-invoice only. E-invoice is a system in which B2B invoices are authenticated electronically by GSTN for further use on the common GST portal. Under the electronic invoicing

system, an identification number will be issued against every invoice by the Invoice registration Portal (IRP) to be managed by the GST network (GSTN).

## **7.0 SECURITY DEPOSIT CUM PERFORMANCE GUARANTEE:**

- 7.1 The successful tenderer will have to furnish 5% value of total contract value (All-inclusive) as Security Deposit cum Performance Guarantee in the form of electronic mode of payment/Banker's Cheque/D.D.(or)Pay order/ Irrevocable Bank Guarantee before commencement of supply/work to the Superintending Engineer/Erode Generation Circle/Uratchikottai for acceptance.
- 7.2 The successful tenderer will have to furnish the Security Deposit cum performance guarantee as per clause 7.1 within **30 days** from the date of receipt of Works contract order/Purchase Order failing which TNGECL will be cancel the order placed on the firm. **The Security Deposit cum Performance Guarantee will not carry any interest.** The belated payment of security deposit shall not be accepted. **In the event of failure to remit security deposit within the prescribed period, EMD shall be forfeited and the order will be cancelled.**
- 7.3 The Bank Guarantee shall be valid for a period of **66 months** from the anticipated date of commissioning of the all Five numbers barrage gates at site in good condition. In case of delay in commissioning, the SD cum Performance Bank Guarantee should be extended suitably. The Security Deposit cum Performance Bank Guarantee shall be returned only after the expiry of guarantee period after ensuring that defects/damages during the guarantee period are rectified/replaced. The SD cum PG shall be returned to the tenderer only if the tender is completed to the satisfaction of the Corporation.
- 7.4 The extended Bank Guarantee shall be submitted to TNGECL within the date of expiry of existing Bank Guarantee. In case of failure to submit such extended Bank Guarantee within the due date, TNGECL shall invoke the Bank Guarantee by addressing the Bank directly.
- 7.5 If the purchaser incurs any loss or damage on account of breach of any of the clauses or any other amount arising out of the contract becomes payable by the successful tenderer to the purchaser, then the purchaser will in addition to such other dues that he shall have under the law, appropriate the whole or part of the Security Deposit cum Performance Guarantee and such amount that is appropriated will not be refunded to the successful tenderer.
- 7.6 Failure to comply with the terms regarding Security Deposit cum Performance Guarantee set out in the works contract order within the stipulated time by the successful tenderer will entail in cancellation of the order without any further reference to the successful tenderer.

**No tenderer is exempted from payment of Security Deposit cum Performance Guarantee.**



- 7.7 If the supplier failed to replace/rectify the defects within time and non compliance of guarantee clause, TNGECL reserves the rights to invoke the SD cum Performance guarantee.
- 7.8 The SD forfeited will also attract GST@18% and will be additionally collected from the tenderers.

## **8.0 COMPLETION PERIOD:**

- 8.1 The successful tenderer shall have to submit two sets of overall dimension drawing along with the design calculation, general arrangements and detailed technical specification of barrage gate with counter weight and new hoisting mechanism within 30 days from the date of receipt of works contract order and got approved by Superintending Engineer/Erode Generation Circle/Uratchikottai. Any other details if necessary for preparation of the above drawing shall be obtained from SE/Erode Generation Circle/Uratchikottai. The drawing will be scrutinized and approved within reasonable time.
- 8.2 Third party's scrutiny of design/drawings of the barrage gate, hoisting mechanism of gate for the existing structure shall be carried out by the purchaser, the cost of which should be borne by the tenderer.
- 8.3 The new barrage gate with counter weight and new hoisting mechanism should be manufactured according to site condition and erected according to site condition. The successful tenderer shall have to complete the all works as per technical specification and new Barrage Gate with counter weight and new hoisting mechanism shall be commissioned within **150 Days** from the date of handing over of the respective gate. Only Two numbers barrage gates will be handed over at a time for the replacement works. This period also includes removal of respective old damaged gate along with counter weight and existing hoisting mechanism and its accessories etc.
- 8.3 1 set of approved overall dimension drawing and detailed technical specification of barrage gate along with counter weight and new hoisting mechanism should be handed over to field for inspection.
- 8.4 The above completion period shall be guaranteed by the tenderer under liquidated damages clause governed by this specification. However, the tenderers are requested to quote the minimum period required for supply of new barrage gate with counter weight and new hoisting mechanism and completion of the above work.
- 8.5 Only the date of commissioning of new Barrage Gate along with counter weight and new hoisting mechanism will be reckoned as date of completion for this purpose.
- 8.6 OLD DAMAGED GATE NO.8,9,10,11&12: It is the scope of contractor for cutting, removal of the old barrage gate no.8,9,10,11&12 along with counter weight and existing hoisting mechanism and its accessories etc. at groove

and devolution of the scrap to the central stores, Kuthiraikalmedu which is 10 km from Lower Mettur Barrage Power house – 4, Uratchikottai.

#### 8.7 **E-WAY BILL:**

E-Way Bill is an electronic document to be generated to cover movement of goods more than Rs.1,00,000 and such generation needs to be done in e way bill portal. Consequently, transporters of goods are required to carry an e way bill under GST provisions for the movement of such goods. The value of goods shall be the value declared in an invoice, a bill of supply or a delivery challan and also includes the Central tax, State or Union territory tax, Integrated tax and cess charged, if any. But it will not include value of freight charges for the movement charged by the transporter.

It is the responsibility of Supplier/Contractor to ensure the delivery at the destination stores/sites of TNGECL. Therefore, it is the responsibility of the Supplier/Contractor or their transporters to generate e-way bill before transporting goods for delivery at TNGECL's premises.

#### 9.0 **LOSS OR DAMAGE:**

- 9.1 External damages that are prima facie, the results of handling in transit or due to defective packing and shortages will be intimated within one month from the date of receipt of the materials at site. Internal defects, damages or shortages of integral parts, which cannot ordinarily be detected on a superficial visual examination, though due to handling in transit or defective packing, would be intimated within 2 months from the date of receipt of materials at stores. In either case, the defective materials shall be replaced / rectified by the successful tenderer, free of cost as per Clause 13-1.
- 9.2 If during the period of supply, it is found that goods already supplied are defective in material or workmanship or do not conform to specification or are unsuitable for the purpose for which they are purchased, then it will be open to the purchaser either to reject the goods or repudiate the entire contract and claim such loss that the purchaser may suffer on that account or require the successful tenderer to replace the defective goods, free of cost.
- 9.3 Similarly, if during the guarantee period any of the goods are found to be defective in materials or workmanship or do not conform to specification, are unsuitable for the purpose for which they are purchased, it will be open to the purchaser either to repudiate the entire contract and claim damages or accept such parts of the goods that are satisfactory and require the successful tenderer to replace the balance or to claim compensation for the entire loss sustained by the purchaser on that account.
- 9.4 In the event of supplies being received damaged/or of any shortage at the destination site, the cost of such materials, applicable taxes (if payable) and other charges payable thereof will be paid only proportionate to the value of materials received in good condition, unless the damaged goods or short supplies are made good free of cost by the successful tenderers. The

defective materials shall have to be taken back from site at your risk and cost. In any case, damaged or defective materials should be replaced free of cost to the TNGECL.

- 9.5 For all legal purposes, the materials shall be deemed to pass into the TNGECL's ownership at the destination, where they are to be delivered and accepted.

## **10.0 LIQUIDATED DAMAGES:**

- 10.1 The delivery as specified should be guaranteed by the successful tenderer under the liquidated damages clause given below:

- a) If the successful tenderer fails to complete the works and commissioning of the new barrage gates along with counter weight & new hoisting mechanism within the time specified in the contract or any extension thereof, the purchaser shall recover from the successful tenderer as liquidated damages, a sum of HALF PERCENT (0.5%) of the total value of works contract for each completed week of delay.
- b) Liquidated Damages will be levied for delay in replacement/repair of defective/damaged supply.
- c) The total Liquidated Damages shall not exceed ten per cent (10%) of the contract price.
- d) Liquidated Damages will also be levied for delay in submission of overall dimension drawing general arrangements and detailed technical drawings within 30 days from the date of receipt of works contract order.

Only the date of commissioning of the new barrage gate along with counter weight and new hoisting mechanism will be reckoned as date of completion for this purpose.

- 10.2 If the works are completed by the successful tenderer beyond the period of completion and they are accepted by the TNGECL, such acceptance is without prejudice to TNGECL's right to levy liquidated damages for the delay in completion of works.
- 10.3 If the work is not carried out at all, the purchaser shall recover from the successful Contractor, as liquidated damages a sum equal to TEN PERCENT (10%) of the contract price of the works contract besides forfeiture of SD cum Performance BG.
- 10.4 The successful tenderer is liable to pay the amount of loss sustained by the TNGECL in the event of non-execution of orders, if any placed on him to the satisfaction of the TNGECL under the terms and conditions of contract and in the event of placing orders for such quantities on some others at a higher price.

- 10.5 Tenderers not giving clear and specific acceptance to the above clauses are liable for rejection.
- 10.6 If there is any downward trend in prices on account of belated completion of works, the Contractors have to accept the same with the levy of liquidated damages, for belated completion of works.
- 10.7 Liquidated damages as per the terms of W.C.T. will be recovered from the respective bills itself for the delayed completion of works.
- 10.8 In case of part work completion of the barrage gate which would affect the commissioning of the barrage gate, then LD will be levied for the entire contract value of that particular equipment and not on the value of the delayed portion only.
- 10.9 The TNGECL will also be at liberty to cancel the W.C.T. if the supply is not completed within the accepted delivery period notwithstanding the liquidated damages clause applicable for the belated supplies. Any charge for canceling the W.C.T will not be accepted under any circumstances.
- 10.10 In the event of cancellation of the WCT for non-completion of supply by the supplier then the short supplied items may be ordered afresh. The excess price if any between the original and new WCT will be recovered from the original supplier from the amount due to the original supplier either from this contract or from any other contract.

#### **11.0 FORCE MAJEURE:**

- 11.1 If at any time, during the continuance of the contract, the performance in whole or in part, in any obligation under this contract, shall be prevented or delayed by reasons of any war, hostility, acts of public enemy, acts of civil commotion, strikes, lockouts, sabotages, fires, floods, explosions, epidemics, quarantine restrictions or other acts of God (herein after referred to as eventualities) then, provided notice of the happening of any such eventuality is given by the tenderer to the TNGECL within 15 days from the date of occurrence thereof, neither party shall, by reasons of such eventuality, be entitled to terminate this contract nor shall have any claim for damages against the other in respect of such non-performance or delay in performance and deliveries under this contract, shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist.
- 11.2 Provided that if the performance in whole or part by the successful tenderer on any obligation under this contract is prevented or delayed by reasons of any eventuality for a period exceeding 60 days, the TNGECL may at its option terminate the contract by a notice in writing.
- 11.3 Power cut shall not be considered under the Force Majeure condition. The period of extension shall be decided only by the authority who placed the order after verifying the evidence for the cause of delay.
- 11.4 The termination of the contract as aforesaid shall not absolve the supplier/supplier of his liability to pay damages to the Corporation for the breach of

the contract to deliver the goods or complete the performance of the contract within the time fixed by the purchaser/ suppliers.

## **12.0 GUARANTEE:**

- 12.1 The new barrage gate along with counter weight and new hoisting mechanism commissioned at gate no.8,9,10,11&12 at LMBPH-4/ Uratchikottai shall be guaranteed for satisfactory operation and good workmanship for a period of **FIVE years** from the date of taking over of the Barrage gate by TNGECL in all respect as per schedule. Successful tenderer shall furnish an undertaking for the above.

The guarantee certificate shall be furnished in the format enclosed as Annexure-V.

- 12.2 The tenderer shall give guarantee for the following items.

- a. Quality and strength of the materials used.
- b. Satisfactory operation of the equipment.
- c. Safe stresses in all parts under all conditions of operations.
- d. Protection of equipments against vibration and corrosion.
- e. Workmanship.

The tenderer shall correct, at his own expense, the defects, if any, during the guarantee period. Within guarantee period after acceptance of the equipment and completion of erection if any part of the gates etc., is found defective because of workmanship or material or otherwise, the contractor shall at his own expense, furnish and install new part and materials approved by the purchaser.

The tenderer shall assume all responsibility for direct damages causing personnel injury or property damage caused by any manufacturing defects resulting in the failure of the equipment being supplied under these specifications.

- 12.3 Any defects noticed during this period shall be rectified free of cost to the TNGECL within 2 (Two) months from the intimation of defect/failure. Irrespective of number of failures and repairs, the contractors are responsible for free replacement of the defective materials till the guarantee period. If they are not rectified or replaced within this period the contractor shall pay Liquidated Damages as per Liquidated Damages clause in the contract for the delay from the date of receipt of intimation for the defects or failures.
- 12.4 The incidental expenses, insurance and freight charges for the replacement of defective materials within the guarantee period shall also be borne by the contractor.

## **13.0 REPLACEMENT OF DEFECTIVE/DAMAGED MATERIALS:**

- 13.1 Notwithstanding anything contained in the liquidated damages clause when the whole or part of the work carried out by the successful tenderer are found to be defective/damaged or are not in conformity with the specification or template, such defects or damages in the work shall be

rectified within two months from the date of intimation of such defect/damage either at the point of destination or at the successful tenderer's works, at the cost of successful tenderer, against proper security and acknowledgement. In the alternative, the defective or damaged materials shall be replaced free of cost within two months from the date of receipt of the intimation from the purchaser of such defects or damages. If the defects or damages are not rectified or replaced within this period, the successful tenderer shall pay a sum towards liquidated damages as per liquidated damages clause 10.0 above, for the delay in rectification/replacement of the defects or damages. The above liquidated damages are in addition to the liquidated damages for the delay in delivery of materials covered in Clause – 10.0

- 13.2 In the event of supplies being received damaged or short at the destination stores, the cost of such materials with applicable taxes and other charges payable thereof will be paid only proportionate to the value of the materials received in good condition unless the damaged goods or short supplies are made good free of cost to the TNGECL by the supplier.
- 13.3 If even after such rectification or replacement of the damaged or defective part, the works executed are not giving the satisfactory performance as per the contract, then it will be open to the purchaser either to reject the goods and recover the entire cost of such goods and claim such loss sustained by the TNGECL.
- 13.4 Notwithstanding any other remedies available, the purchaser shall be entitled to dispose of the defective/damaged materials in as is where is condition without further notice, if the contractor/supplier fails to rectify the defects/damaged materials within such period as may be notified by the purchaser through notice and the sale proceeds of such disposal shall be appropriated towards the dues to the Corporation such as Liquidated Damages, ground rent etc. as may be determined by the purchaser.

#### **14.0 FAILURE TO EXECUTE THE CONTRACT:**

Successful tenderer failing to execute the works contract order placed on him to the satisfaction of the TNGECL under terms and conditions set forth therein, will be liable to make good the loss sustained by the TNGECL, consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh works contract order have been placed. This is without prejudice to the imposition of Liquidated Damages and forfeiture of Security Deposit cum Performance Guarantee.

#### **15.0 NON-ASSIGNMENT:**

The successful tenderer shall not assign or transfer the contract or any part thereof without the prior approval of the purchaser.

#### **16.0 EFFECTING RECOVERIES:**

Any loss, arising due to non-fulfillment of this contract or any other contract, will be recovered from the Security Deposit cum Performance Guarantee

held and or any other amount due to the successful tenderer from the TNGECL from this Contract as well as from other contracts.

#### **17.0 PATENT RIGHTS ETC:**

The successful tenderer shall indemnify the purchaser against all claims, actions, suits and proceedings for the infringement or alleged infringement of any patent, design or copy right protected either in the country of origin or in India by the use of any equipment supplied by the successful tenderer other than for the purpose indicated by or reasonably to be inferred from the specification.

#### **18.0 JURISDICTION FOR LEGAL PROCEEDINGS:**

No suit or any proceedings in regard to any matter arising in any respect under this contract shall be instituted in any court, save in the appropriate Civil Court of Chennai or the Court of Small Causes at Chennai. It is agreed that no other court shall have jurisdiction to entertain any suit or proceedings, even though, part of the cause of action might arise within their jurisdiction. In case, any part of cause of action might arise within the jurisdiction of any of the courts in Tamil Nadu but not in courts at Chennai and rest within the jurisdiction of courts outside Tamil Nadu, then it is agreed to between parties that such suits or proceedings shall be instituted in court within Tamil Nadu and no other court outside Tamil Nadu shall have jurisdiction, even though any part of the cause of action might arise within the jurisdiction of such courts. An UNDERTAKING in this regard should be furnished on receipt of Works Contract Order in a non judicial stamp paper value of Rs.500/- agreeing to be above conditions.

#### **19.0 ARBITRATION:**

The TNGECL will not accept any arbitration in case of disputes arising in any respect under this contract. Any dispute arising out of this contract shall not be subject to arbitration under the provisions of Arbitration and Conciliation Act 1996 in the event of any dispute between the parties.

#### **20.0 DEVIATIONS FROM SPECIFICATION:**

If the tenderer wish to deviate from any of the clauses of this specification, he shall list out such deviations, in the format enclosed (Schedule B & C) and submit full particulars and reasons thereof. Unless this is done, the equipment offered shall be considered to comply, fully in every respect with the terms and conditions of this specification.

#### **21.0 TESTS AND TEST CERTIFICATES:**

All relevant tests shall be carried out on the equipment as per relevant ISS. The contractor shall conduct suitable tests and performance tests on the equipment/materials to verify its desired operation as per ISS. All tests should be conducted in the presence of TNGECL's engineer. The inspection report and test reports are to be furnished to Superintending Engineer/Erode Generation Circle/Uratchikottai for approval and got approved by Superintending Engineer/Erode Generation Circle/Uratchikottai. The test certificates in triplicate for the materials furnishing the results of the tests as per latest issue of IS or any other relevant International Standard as

applicable shall be forwarded and got approved before the materials are dispatched.

In addition to the tests called for in the specification, the purchaser reserves the right of having such tests as he desires carried out at his own expenses to satisfy himself that the materials conform to the requirement of this specification. The materials may be rejected if the test results are not satisfactory.

## **22.0 RESPONSIBILITY:**

The tenderer is responsible for satisfactory operation of the new Barrage gate. The tenderer should provide packing and secured protection of the materials to be supplied by them so as to avoid damages or loss in transit.

## **23.0 MAXIMUM WEIGHTS AND DIMENSIONS OF PACKINGS:**

The successful tenderer is responsible to make sure about the facilities that exist for Road and Rail transport to site, the maximum packages which can be conveyed by the railways and crane lift available at the destination railway station. The successful tenderer is also responsible for any loss or damage during transport and storage for 90 days. Each case or package should be clearly marked and should contain detailed packing list.

## **24.0 INSPECTION:**

- 24.1 During the work carried out at site, the works shall be inspected by TNGECL's Engineers at any time during the works. In case the works are not carried out to the satisfaction of TNGECL's inspecting Engineers, further work should be proceeded only after attending the defects if any pointed out by the TNGECL's Engineers during inspection, free of cost.
- 24.2 The authorized representatives of the purchaser shall have free access to the successful tenderer's or sub-vendor's works at any time during working hours, for the purpose of inspecting the manufacture of the materials and for testing the equipment/materials covered by this specification. The successful tenderer or the sub-vendor shall provide all facilities for the above.
- 24.3 Tenderers are requested to furnish in their tenders the exact location of their factory with detailed address to enable inspection by TNGECL if considered necessary.
- 24.4 Not less than 15 days advance intimation shall be given for inspection by the TNGECL's officers. The arrangement for inspection shall be made by successful tenderer in such a way that the delivery schedule is kept up. The materials shall not be despatched without acceptance of test certificate and instruction from TNGECL.
- 24.5 In case the works are not carried out to the satisfaction of TNGECL's inspecting Engineers, further work should be proceeded only after attending the defects if any pointed out by the TNGECL's Engineers during inspection, free of cost.



24.6 The tenderer is responsible for satisfactory operation of the new Barrage gate. The tenderer should provide packing and secured protection of the materials to be supplied by them so as to avoid damages or loss in transit

24.7 TNGECL reserves the rights to waive the inspection if found necessary.

#### **25.0 COMPLETENESS OF TENDER:**

The tender should include all accessories even though not specifically mentioned in this specification but which are essential for the completeness of the materials/works ordered. The tenderer shall not be eligible for any extra charges in respect of such minor accessories though not included in the tender.

#### **26.0 INTERCHANGEABILITY:**

All similar parts and removable parts of similar items shall be interchangeable with each other.

#### **27.0 CLIMATIC CONDITIONS:**

The materials are for use in Tamil Nadu and should be satisfactory for operation under tropical conditions in Erode Generation area as detailed below.

The ambient temperature will be within the range of  $\pm 2$  Degree Centigrade to + 40 Degree Centigrade.

#### **28.0 ELECTRICITY RULES :**

All works shall be carried out in accordance with the latest provisions of the Indian Electricity Act/Electricity Supply Act and the Indian Electricity Rules there-under unless modified by this specification.

#### **29.0 MATERIALS AND WORKMANSHIP:**

29.1 All materials, equipments and spare parts thereof shall be new, unused and originally coming from manufacturer's plant to the destination stores. Those including used, rebuilt or overhauled materials/equipments will not be accepted.

29.2 All the materials used for the works shall be of the best class and capable of satisfactory operation in the tropics with humid atmospheric conditions without distortion or deterioration. Unless otherwise specified the equipment shall conform to the requirements of the appropriate Indian or I.E.C. or other international Standards. Where a specification covering the equipments in question has not been published, the tenderer should specify to what extent they would be in a position to accept the various provisions in the specification.

29.3 The workmanship shall be of the highest grade and the entire construction in accordance with the best modern practice. The whole of the work shall be of the highest class throughout well finished and of approved make. The entire design and construction shall be capable of withstanding the severest stresses likely to occur in actual service and of resisting rough handling during transport.

29.4 The design shall incorporate every reasonable precaution and provisions for the safety of all those concerned in the operation and maintenance.

29.5 All the equipments should operate without undue vibration.

29.6 The new barrage gate fabrication works (along with counter weight) and new hoisting mechanism works shall be to the entire satisfaction of the field engineers.

### **30.0 RECOVERIES OF DUES:**

The TNGECL is empowered:

- a) To recover any dues against this contract in any bills/Security Deposit cum performance guarantee/Earnest Money Deposit due to the successful tenderer either in this contract or any other contracts with TNGECL, TNPGL, TNPDL, TANTRANSCO and TNEB.
- b) To recover any dues against any other contract of the successful tenderer with TNGECL, TNPGL, TNPDL, TANTRANSCO and TNEB, with the available amount due to the successful tenderers against this contract.
- (c) The SD forfeited will also attract GST and will be additionally collected from the tenderers.

### **31.0 PAST PERFORMANCE:**

31.1 The intending tenderers shall furnish the documentary evidence with details of various orders placed on them during the last ten years as on the date of tendering in the proforma enclosed to the Tender Specification and also proof for having executed the works and for their satisfactory performance from State Electricity Board.

31.2 The Bidders shall furnish copies of Balance Sheet, Profit and Loss Account for the last three financial years 2021-22, 2022-23, 2023-24 certified by the Auditor.

In case Accounts for the last financial year are not finalized, the Bidders shall furnish Annual Turnover Statement for the year duly certified by Auditor.

31.3 The Bidders shall furnish documentary evidence for the constitution of the firm such as Memorandum and Articles of Association, Attested copy of Registered Partnership Deed with details of Name, Address, and Telephone of the manufacturing plants.

31.4 The details furnished by the Contractors shall be in complete shape and if it is found that any information is found omitted, suppressed, incomplete or incorrect, the same will be taken note of while dealing with the Contractors in future and will entail forfeiture of EMD.

### **32.0 RAW MATERIALS:**

It is the responsibility of the Contractor to make his own arrangement to procure the necessary raw materials required for the new barrage gates fabrication works.

### **33.0 SPECIAL CONDITIONS:**

33.1 **POWER FACILITY:** 415V, 3 phase AC supply if required for works at site will be provided by TNGECL at appropriate applicable tariff for temporary

supply at the rate prevailing during the currency of contract. Necessary cables switchboard etc. shall be arranged by the contractor. In case of any power failure, the contractor shall make their own arrangement to execute the work using DG sets.

- 33.2 **TOOLS&PLANTS AND INSTRUMENTS:** All instruments and tools & plants and consumables required for the work shall be arranged by the contractor.
- 33.3 Subject to availability, unfurnished accommodation will be provided at applicable rental charges. The energy consumed in such accommodation shall be billed at appropriate domestic tariff rate. Food shall be the responsibility of the successful tenderer.
- 33.4 **MAN POWER REQUIREMENT:** Required number of skilled and unskilled man power to be arranged by the contractor.

#### **34.0 SAFETY OF PERSONNEL:**

The Tenderer is solely responsible for arranging the following for his workmen.

- a) Safety during the erection, testing and commissioning work at spot. The Tenderer's workers should wear necessary safety appliances during the work.
- b) Insurance of workman and other personnel working under him. The Tenderer should cover his employees under accident Insurance Plans of General Insurance Company of India to cater for the workmen's Compensation Act, 1923, with all later amendments.
- c) Compensation to workmen as per workman compensation act in case of accidents or injuries.

#### **35.0 LIABILITY FOR ACCIDENTS TO PERSON:**

- 35.1 The Tenderer shall indemnify and save harm to the TNGECL against all actions, suits, claims, demands, costs or exposes arising in connection with injuries suffered prior to the date when the works or plant shall have been taken over by the date when the works or plant shall have been taken over by the persons employed by the Tenderer or his sub-Tenderer, the works whether under the Central Law or under the workmen's compensation Act 1923 or any other statutory law in force at the date of the tender dealing with the question of the liability of employees for injuries suffered by employees and to have taken steps properly to insure against any claims there under.
- 35.2 On the occurrences of an accident which results in the death of the workmen employed by the Tenderer or which is due to the tender work and or so serious as to be likely to result in the death of any such workmen, the Tenderer shall within 24 hours of happening of such accident intimate in writing to the concerned Engineer and such officers required by the provision of the workmen's Compensation Act, the fact of such accident. The tenderer shall indemnify TNGECL against all loss or damage sustained by TNGECL resulting directly or indirectly from his failure to give intimation in the manner aforesaid, including the penalties or fines, if any payable by

TNGECL as a consequence of TNGECL's failure to give notice under the Workmen's Compensation Act or otherwise to confirm to the provisions of the said Act in regard to such accident.

- 35.3 In the event of any claim being made, or action brought against the TNGECL involving the Tenderer and arising out of the matters referred to and in respect of which the Tenderer is liable under the clause, the Tenderer shall be immediately notified thereof and he shall with the assistance, if he so requires, of the TNGECL but at the sole expense of the Tenderer, conduct all negotiations for the settlement of the same or of any litigation that may arise there from. In such cases, the TNGECL shall at the expenses of the Tenderer, afford all available assistance for any such purpose.
- 35.4 In the event of an accident in respect of which compensation may become payable under workmen's Compensation Act VIII of 1923 and any subsequent amendment thereof whether by the tenderer or by the Government as principle, it shall be lawful for the Engineer to retain out money due and payable to the tenderer such sum or sums of money as may in the opinion of the said engineer be insufficient to meet such liability. The opinion of the engineer shall be final in this regard to all matters arising under this clause and will not be subjected to any arbitration.
- 35.5 Liability for damages or loss to third party including inspecting officers due to acts of the tenderer or his plant, or such tenderer connected with the execution of this tender shall be fully borne by the tenderer. The tenderer shall maintain such detailed records to furnish information regarding entitlement and discharge of all workmen employed under this tender as to be adequate for the timely and full settlement of claims under the Workmen Compensation Act. All cases of accident or injuries shall be reported to the engineer with all the details required for the settlement under the Workmen Compensation Act.
- 35.6 The tenderer should report about all accidents within 24 hours to the Assistant Executive Engineer of the respective Power House of TNGECL in the preliminary accidents form. He should furnish other particulars such as Medical Certificates, Wages particulars, fitness certificate, proof for having paid the compensation fixed by the TNGECL, etc. in due course without delay.

### **36.0 LIABILITY FOR DAMAGE TO WORK OR PLANTS:**

- 36.1 The tenderer shall during the progress of the work properly cover up and protect the work and plant from injury by exposure to the weather and shall take every reasonable proper, timely and usual precaution against accident or injury to the persons from any cause and shall be and remain answerable and liable for all accidents or injuries there to which until the same, be or deemed to be, taken over may arise or be occasioned by the Acts or omissions of the tenderer or his workmen or his sub-tenderers and all losses and damages to the works or plant arising from such injuries as aforesaid shall be made good in the most complete and substantial manner by and at the sole cost of the tenderer and to the reasonable satisfaction of the TNGECL Engineer, should such loss or damage happen to units of works, plant or materials falling outside the scope of this tender and the tenderer

due to these shall be placed or compensated for by the tenderer to the satisfaction of the engineer.

- 36.2 In the case of losses or damage to any portion of the work occasioned by other causes, the same shall, if required by the TNGECL be made good by the tenderer in like manner but at the cost of the TNGECL, at a price to be agreed between the tenderer and the TNGECL or in default of agreement settled by Arbitration and the TNGECL shall pay to the tenderer the tender value of the portion of the work so lost or damages or any balance of such tender value remaining unpaid as the case may be.
- 36.3 Until the work shall be or deemed to be taken over as aforesaid the tenderer shall also be liable for and shall indemnify the TNGECL in respect of all damage or injury to any person or to any property of the TNGECL or of others occasioned by the act of tenderer, his workmen or his sub-tenderers or by the defective design, or materials and not due to cause beyond his control. If due to tenderer's carelessness, negligence or non-observance of safety precautions, damage to generating machineries of TNGECL should occur, the full cost will be recovered from the tenderer.

### **37.0 PROTECTION OF EQUIPMENT AND SAFETY:**

The tenderer shall take all reasonable care to protect the materials handed over to him. Wherever necessary, suitable temporary fencing and listing shall have to be provided by the tenderer as a safety measure against accident and damage of property of TNGECL. Suitable caution notices shall be displayed where access to any part may be deemed to be unsafe and hazardous.

### **38.0 SECURITY ARRANGEMENTS:**

The tenderer shall provide sufficient number of Security Personnel/ Watchmen to ensure that the equipments, tools and consumables under his charge are not lost due to theft.

In adequate provision in this regard will result in TNGECL's Engineer making similar arrangements at tenderer's cost.

### **39.0 TENDERER'S REPRESENTATIVE AND WORKMEN:**

- 39.1 The tenderer shall employ at least one competent representative whose name or names shall be communicated in writing to the TNGECL's Engineer and is to be given full responsibility as representative of the tenderer to enter into negotiations at site in regard to execution of tender. The said representative or if more than one shall be always present at site during working hours and any written orders or instruction which the TNGECL's Engineer may give to the said representative of the tenderer shall be deemed to have been given to the tenderer. The name, address, qualification of Engineer and other technical staff shall be given.
- 39.2 The tenderer shall provide skilled, semi-skilled and unskilled workers for the execution of work. The TNGECL's Engineer shall be at liberty to object to any representative or person employed by the tenderer in the execution or otherwise about the works who in the Engineer's opinion shall misconduct

himself or by incompetent objected to forthwith, upon receipt of notice from the Engineer requiring him to do so.

#### **40.0 DEATH, BANKRUPTCY ETC.:**

In case of death or committing any act of Bankruptcy or being a corporation commence to be wound up except for reconstruction purposes or carry on its Business under a receiver, the executors, successors or other representative in law of the estate of the tenderer or any such receiver, liquidator or any person in whom the tender may become vested, shall forthwith given notice thereof in writing to the TNGECL and shall given for one month, during which, he shall take all reasonable steps to prevent stoppage of the works, have the option of carrying out this tender subject to his/or their providing such guarantees as may be required by the TNGECL but not exceeding the value of the work for the time being remaining unexecuted. In the event of stoppage of the works the period of option under the clause be fourteen days only. Provided that, should the above option be not exercised, the tender may be terminated by the TNGECL by notice in writing to the tenderer. And the same power and provisions reserved to the TNGECL on the taking of the work out of the tenderer's hands shall immediately become operative.

#### **41.0 REPAIRS/REPLACEMENT:**

Any loss or damage during erection and testing of the equipments shall be replaced/repaired free of cost by the contractor.

#### **42.0 SUBLETTING:**

No part of the contract shall be sublet without prior written permission of the Chief Engineer nor shall transfer to make by power of attorney authorizing others, to receive payment on contractor's behalf.

In case of the contractor engaging contract laborers with the prior approval mentioned above in writing, the following should be strictly adhered to.

- a) The contractor should fulfill strictly all the conditions as stipulated in the contract laborer (Regulation and abolition) Act, 1970 and the rules made there under.
- b) The contractor should take out a license at his cost, under section 12 of the above said act within the specified period as mentioned by the management/Principal employees at the time of awarding the contract.
- c) The contract laborer engaged by the contractor have no right to claim employment or any other benefit from TNGECL.

#### **43.0 GENERAL:**

Notwithstanding anything contained in any of the above terms and conditions, the TNGECL shall have the right to relax waive any of the conditions of the contract wherever deemed necessary in the interest of the TNGECL.

**44.0 SIGNATURE OF TENDERERS:**

The tender must contain the name, residence and place of business of the person or persons making the tender and must be signed and sealed by tenderer with his usual signature.

A tender by a partnership concern must furnish the full names of all partners. It should be signed by one of members of the partnership or by an authorized representative followed by the name and designation of the person or persons signing.

Tenders by corporations/companies must be signed with the legal names of the corporations/companies by the President, Secretary or any other person or persons authorized to bind the corporation/company in the matter.

**45.0 SPECIFICATION AND CLARIFICATIONS:**

The tenderer shall study carefully the specification and conditions that are contained in this specification before tendering.

If the tenderer has any doubt as to the meaning of any portion of this specification, he could refer to the Superintending Engineer/Hydro (Electrical)/5<sup>th</sup> Floor, Eastern Wing, N.P.K.R.R.MAALIGAI/TNGECL, 144, Anna Salai, Chennai-2 (Ph: 044 - 28521416), in writing and obtain the clarification well in advance.

**46.0 DEPARTURE FROM THIS SPECIFICATION CLAUSE:**

If the tenderer wishes to depart from the specification clauses in any respect he shall draw the attention to support points of departure explaining fully the reasons thereof. Unless, this is done the requirement of this specification clause will be deemed to have been accepted in every respect.

**47.0 TENDERER'S UNDERSTANDING OF TENDER/DOCUMENT:**

The tenderer shall carefully examine the tender documents and fully inform himself as to all the condition and matters which may be in any way affect the work or the cost thereof. Should a tenderer find discrepancies in, or omissions from the specification or documents, or should be in doubt as to their meaning, he should at once notify the Superintending Engineer/Hydro (Electrical)/5<sup>th</sup>Floor, Eastern Wing, N.P.K.R.R.MAALIGAI/TNGECL, 144, Anna Salai, Chennai-2 (Ph: 044 - 28521416) and obtain clarification in writing prior to submitting the tender.

## **SECTION-VI**

### **GENERAL CONDITIONS (STATUTORY COMPLIANCES)**

1) The Contractor shall employ labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-Charge. The Contractor shall not employ in connection with the Works any person who has not completed his eighteen years of age.

2) The Contractor shall pay to labour employed by him either directly or through digital transfer. The wages should not be less than fair wages as defined in the current PWD Schedule rates (or) Minimum Wages Act (if applicable).

3) The Contractor shall in respect of labour employed by him comply with or cause to be complied with the Contract Labour Regulations in regard to all matters provided therein.

4) The Contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employers' Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefit Act, 1961, Employees Provident Fund & Miscellaneous Provisions Act, 1952, Employees State Insurance Act, 1948, Payment of Bonus Act, 1965 and Mines Act, 1952, Contract Labour Regulation & Abolition Act, 1970 or any modifications thereof or any other law relating thereto and rules made thereunder from time to time.

5) The Engineer-in-Charge shall on a report having been made by an Inspecting Officer as defined in the Contractors Labour Regulations have the power to deduct from the moneys due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the Conditions of the Contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by the terms of the Contract or non-observance of the said Contractors Labour Regulations.

6) The Contractor shall indemnify the Corporation against any payments to be made under and for observance of the Regulations afore said without prejudice to his right to claim indemnity from his sub-contractors. (if permitted).

7) In the event of the Contractor committing a default or breach of any of the provisions of the aforesaid Contractors Labour Regulations as amended from time to time or furnishing any information or submitting or filling any Form/ Register/ Slip under the provisions of these Regulations which is materially incorrect then on the Report of the Inspecting Officers as defined in the Contractors Labour Regulations the Contractor shall without prejudice to any other liability pay to the Corporation a sum not exceeding Rs. 50.00 as liquidated damages for every default, breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the Engineer-in-Charge and in the event of the Contractor's default continuing in this respect, the liquidated damages may be enhanced to Rs.50.00 per day for each day of default subject to a maximum of ten percent of the estimated cost of the



Works put to tender. The Engineer-in-Charge shall deduct such amount from bills or security deposit of the Contractor and credit the same to the Welfare Fund constituted under Regulations. The decision of the Engineer-in-Charge in this respect shall be final and binding.

8) The contractors executing the works contract/contract in which labours are engaged should provide an accidental insurance scheme for Rs.2,00,000/- additionally under Pradhan Mantri suraksha Bima Yojana (PMSBY) scheme through the Bank/Post Office for a premium of Rs'20/- per annum per person, to all the labours engaged by them for the works in TNGECL.

### **1.0 CONTRACT LABOUR REGULATIONS:**

(i) Notice of commencement: The Contractor shall, within SEVEN days of commencement of the work, furnish in writing to the Inspecting Officer of the area concerned the following information :

(a) Name and situation of the work.

(b) Contractor's name and address.

(c) Particulars of the Department for which the work is undertaken,

(d) Name and address of sub-contractors as and when they are appointed.

(e) Commencement and probable duration of the work.

(f) Number of workers employed and likely to be employed.

(g) 'fair wages' for different categories of workers.

(h) Number of hours of work which shall constitute a normal working day:-

(i) The number of hours which shall constitute a normal working day for an adult shall be NINE hours. The working day of an adult worker shall be so arranged that inclusive of intervals, if any, for rest it shall not spread over more than twelve hours on any day, when an adult worker is made to work for more than NINE hours on any day or for more than FORTY EIGHT hours in any week he shall, in respect of overtime work, be paid wages at double the ordinary rate of wages.

(ii) Weekly day of rest : Every worker shall be given a weekly day of rest which shall be fixed and notified at least TEN days in advance. A worker shall not be required or allowed to work on the weekly rest day unless he has or will have a substituted rest day, on one of the five days immediately before or after the rest day. Provided that no substitution shall be made which will result in the worker working for more than ten days consecutively without a rest day for a whole day.

(a) Where in accordance with the foregoing provisions a worker works on the rest day and has been given a substituted rest day he shall be paid wages for the work done on the weekly rest day at the overtime rate of wages.

(b) Note: The expression 'ordinary rate of wages' means the

fair wage the worker is entitled to.

(c) Display of notice regarding Wages, Weekly Day of Rest etc. The Contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the works, notice in English and in the local Indian Language, spoken by majority of workers, giving the rate of fair wages, the hours of work for which such wages are payable, the weekly rest days workers are entitled to and name and address of the Inspecting Officer. The Contractor shall send a copy each of such notices to the Inspecting Officers.

(iii) Register of Workmen: A register of workmen shall be maintained in the Form appended to these regulations and kept at the work site or as near to it as possible, and the relevant particulars of every workman shall be entered therein within THREE days of his employment.

(iv) Employment Card : The contractor shall issue an employment card in the Form appended to these regulations to each worker on the day of work or entry into his employment. If a worker already has any such card with him issued by the previous employer, the contractor shall merely endorse that Employment Card with relevant entries. On termination of employment the Employment Card shall again be endorsed by the Contractor and returned to the worker.

(v) Register of Wages etc. : A Register of Wages-Cum-Muster Roll in the Form appended to these regulations shall be maintained and kept at the work site or as near to it as possible.

(vi) Fines and deductions: Wages of a worker shall be paid to him without any deductions of any kind except the deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money which he is required to account for, where such damage or loss is directly attributable to his neglect or default;

(a) No fine shall be imposed on a worker and no deductions for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.

(b) The Contractor shall maintain a register of fines and the register of deductions for damage or loss in the Forms appended to these regulations which should be kept at the place of work.

(vii) Register of Accidents : The Contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:--

- (a) Full particulars of the labourers who met with accident.
- (b) Rate of Wages.
- (c) Sex.
- (d) Age.

- (e) EPF UAN number.
- (f) ESI number.
- (g) Aadhaar number.
- (h) Nature of accident and cause of accident
- (i) Time and date of accident.
- (j) Date and time when admitted in hospital.
- (k) Date of discharge from the hospital.
- (l) Period of treatment and result of treatment.
- (m) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
- (n) Claim required to be paid under Workmen's Compensation Act.
- (o) Date of payment of compensation.
- (p) Amount paid with details of the person to whom the same was paid.
- (q) Authority by whom the compensation was assessed.
- (r) Remarks.

[Note: k,l,m,n for the workmen not covered under the ESI provisions]

(viii) Preservation of Registers : The Register of workmen and the Register of Wages-cum-Muster Roll required to be maintained under these Regulations shall be preserved for 3 years after the date on which the last entry is made therein.

(ix) Enforcement: The Inspecting Officer shall either on his own motion or on a complaint received by him carry out investigations, and send a report to the Engineer-in-Charge specifying the amounts representing Workers' dues and amount of penalty to be imposed on the Contractor for breach of these Regulations, that have to be recovered from the Contractor, indicating full details of the recoveries proposed and the reasons there for. It shall be obligatory on the part of the Engineer-in-Charge on receipt of such a report to deduct such amounts from payments due to the Contractor.

(x) Disposal of amounts recovered from the Contractor : The Engineer-in-Charge shall arrange payment to workers concerned within FORTY FIVE days from receipt of a report from the Inspecting Officer except in cases where the Contractor had made an appeal under Regulation 16 of these Regulations. In cases where there is an appeal, payment of workers dues would be arranged by the Engineer-in-Charge, wherever such payments arise, within THIRTY days from the date of receipt of the decision of the competent authority.

(xi) Welfare Fund: All moneys that are recovered by the Engineer-in-Charge by way of workers dues which could not be disbursed to workers within the time limit prescribed above, due to reasons such as whereabouts of workers not being known, death of a worker etc. and also amounts recovered as penalty, shall be credited to a Fund to be kept under the

custody of the Corporation for such benefit and welfare of workmen employed by Contractors.

(xii) Appeal against decision of Inspecting Officer: Any person aggrieved by a decision of the Inspecting Officer may appeal against such decision to the competent authority concerned within THIRTY days time stipulated from the date of the decision, forwarding simultaneously a copy of his appeal to the Engineer-in-Charge. The decision of the competent authority shall be final and binding upon the Contractor and the workmen.

(xiii) Inspection of Books and other Documents: The Contractor shall allow inspection of the Registers and other documents prescribed under these Regulations by Inspecting Officers and the Engineer-in-Charge or his authorized representative at any time and by the worker or his agent on receipt of due notice at a convenient time.

(xiv) Interpretation, etc.: On any question as to the application interpretation or effect of these Regulations, the decision of the Commissioner of Labour (or) Director/Industrial Safety and Health shall be final and binding.

(xv) Amendments: Government may, from time to time, add to or amend these Regulation and issue such directions as it may consider necessary for the proper implementation of these Regulations or for the purpose of removing any difficulty which may arise in the administration thereof.

## **2.0 Compliance of EPF & MP Act, 1952:**

(a) The Contractor who take up works contract for TNGECL is required to comply with all the relevant provisions stipulated in the EPF & MP Act;

(b) The Contractor should have a separate EPF main codenumber.

(c) The Contractor should be responsible for the payment of necessary EPF contributions both Employer's and Employee's contribution as per the provisions of the EPF Act in respect of the actual workers engaged for the specified works.

(d) The contractor should submit necessary returns to EPF Organisation within the stipulated time as required under the said EPF & MP Act.

(e) The Contractor should produce the proof of payment of contribution – both Employer's and Employee's contributions made to EPF Organisation in order to claim the Bills for the respective works.

(f) The contractor should be fully liable to meet and fulfill all the relevant provisions of the EPF act in the respect of the execution of the Tendered work.

(g) In case the Contractor fails to fulfill any of the statutory provisions of the EPF & MP Act and consequently it happens that TNGECL Ltd has to meet such requirements of the said Act or Statutory provisions in the capacity of Principal Employer, TNGECL shall make good such requirements out of the money due and payable to the said Contractor and further the performance of the said Contractor in this regard will be noted for all future Contracts of TNGECL.

1.1 In respect of the category of employee for whom the wages are fixed at the rate of Rs.500/- and above in the current PWD Schedule rates (or) say the monthly wages of Rs.15,000/- above. The EPF employer contribution will be restricted upto Rs.15,000/- only.

### **3.0 Compliance of ESI Act 1948 :**

(a) The contractor who take up the works contract for TNGECL is required to comply with all the provisions stipulated to ESI Act 1948.

(b) The contractor should have a separate ESI main codenumber.

(c) The contractor should be responsible for the payment of necessary ESI contributions – both Employer's and Employee's contributions as per the provisions of the ESI Act in respect of the actual workers engaged for the specified works.

(d) The contractor should submit necessary returns to the ESI Organization within the stipulated time as required under the said ESI Act.

(e) The contractor should produce the proof of payment of contributions - both Employer's and Employee's contributions made to ESI Organization in order to claim the Bills for the respective work.

(f) The contractor should be fully liable to meet and fulfill all the relevant provisions of the ESI Act in respect of the execution of the Tendered work.

(g) In case the Contractor fails to fulfill any of the statutory provisions of the ESI Act and consequently it happens that TNGECL has to meet such requirements of the said Act or Statutory provisions in the capacity of Principal Employer, TNGECL shall make good such requirements out of money due and payable to the said Contractor and further the performance of the said Contractor in this regard will be noted for all future Contracts of TNGECL.

(h) (i) The contractor who claims exemption under the ESI Act should produce the exemption order obtained from the Government/ESI organization.

(ii) The contractor who claims exemption for those areas that are not covered under the purview of the ESI Act, necessary evidences should be submitted by the contractor to ensure that the revenue village where the work is being carried out has not been covered under the implemented area of ESI.

(iii) The category of employees (Technical Assistant II Grade) and above for whom the wages are fixed at the rate of Rs. 700/- and above in the PWD Schedule rates (or) the monthly wages of Rs.21,000/- above. Such employees will not be covered under the ESI Act. In all such conditions, the Contractor has "to ensure the medical benefits for the Workers engaged by the Contractors for the works and has to take relevant group insurance policies with the applicability for giving compensation to the workers" under the Employee's Compensation Act.

### **4.0 Statutory Compliance Clearance Certificate:-**

(a) The Contractor executing the works contract in TNGECL should obtain the Statutory Compliance Clearance Certification from the Online

Compliance Service Providers engaged by TNGECL, the required documents should be submitted by the contractors to the respective Online Compliance Service Providers.

(b) The charges for Statutory Compliance Clearance Certification will be at the rate of Rs.2.00/- per man day per month with minimum charges of Rs.400/- and maximum charges of Rs. 3200/- and Rs.300/- for re-audit due to reasons attributable to the contractor. The charges should be paid by the respective contractors to the service provider through online.

#### **5.0 The Building and Other construction Workers Act:-**

(other than the circle/station registered under the Factories Act)

(a) The contractor should obtain the Registration certificate under the Building and Other construction Workers (Regulation of Employment and Condition of Service) Act, 1996 from the Competent Authority (the Joint Director/Industrial Safety and Health (BOCW)).

(b) The contractor should comply all the provisions of the Building and Other construction Workers (Regulation of Employment and Condition of Service) Act, 1996.

#### **6.0 The Contract Labour (Regulation & Abolition) Act 1970 & Rules 1975 and Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 & Rules 1983.**

(a) The Contractor who take up works contract for TNGECL should deploy sufficient number of workmen for the work and the contractor should deploy 20 or more workmen on a day of emergency (or) in necessity.

(b) The Contractors should comply with all the provisions of the Contract Labour (Regulation & Abolition) Act, 1970 and Tamilnadu Contract Labour (Regulation & Abolition) Rules 1975 as modified from time to time and shall also indemnify TNGECL from all and against any claims under the aforesaid Act and the Rules. The contractor should also submit the copy of the labour licence before executing the works.

(c) The Contractors who desires to engage the migrant workmen (workmen from other states) for the works contracts of TNGECL is required to comply with all the provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and Tamilnadu rules, 1983 as modified from time to time and shall also indemnify TNGECL from all and against any claims under the aforesaid Act and the Rules. The contractors should also submit the copy of the migrant labour licence before executing the works.

(d) The contractors should maintain the following records as per section 78 of Contract Labour (Regulation & Abolition) central rules 1971.

(i) Muster Roll in Form – XVI.

(ii) Register of Wages in Form – XVII.

(iii) Register of overtime in Form – XVIII.

(iv) The contractor shall issue an photo identity card to his

employees.

## **7.0 Wages:-**

(a) The contractor should pay the wages before the expiry of seventh day as per section 65 and shall issue wage slip in Form – XXVIII to the workmen as per section 78(b) of The Tamil Nadu Contract Labour Rules, 1973. The copies of the wage slip so issued to the workmen should be maintained by the contractor and produced as when called for.

(b) The contractor should pay the wages before the expiry of seventh day as per section 65 and shall issue wage slip in Form – XXVIII to the workmen as per section 78(b) of The Tamil Nadu Contract Labour Rules, 1973. The copies of the wage slip so issued to the workmen should be maintained by the contractor and produced as when called for.

## **8.0 EPF Documents to be Produced for Claiming Bills:-**

(a) The EPF contribution should be remitted separately (by separate Challan) for each and every work. The acceptance order/ formal order reference number should be entered in the remarks column of the ECR Challan (Electronic Challan Cum Return) and the same should be submitted.

(b) The payment confirmation receipt should be submitted (the payment confirmation date is mandatory).

(c) The combined Challan of Account No. 1,2,10,21 & 22 should be submitted.

(d) All the documents should duly signed with seal by the contractor.

## **9.0 ESI Documents for While Claiming Bills:-**

(a) The Monthly Contribution Challan Form should be submitted (Transaction status field – completed successfully is mandatory).

(b) The contribution history of the respective months should be submitted.

(c) The month wise statement should be submitted showing the details of the employees utilized by the contractors for the specific work and the contribution remitted as per the below format.

S.No	IP.No	IP.Name	No. of days	Wages	IP Contributions
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(d) All the documents should duly signed with seal by the contractor.

## **10.0 Tamil Nadu Rationlisation of Forms and Reports under Certain Labour Laws Rules, 2020.**

The contractor should comply/ maintain the applicable new combined forms introduced vide the following Acts/ Rules.

(a) The Tamil Nadu Contract Labour (Regulation and Abolition) Rules, 1975.

(b) The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) (Tamil Nadu) Rules, 1983.

- (c) The Tamil Nadu Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2006.

**New Forms:**

FORM I	Certificate of Registration of Principal Employer/Employer (under 3 Rules)
FORM II	Application for Licence/ Renewal of Licence (under CLRA and ISMW Rules)
FORM III	Form of Certificate by Principal Employer (under CLRA and ISMW Rules)
FORM IV	Certificate of Initial and Periodical Test and Examination of Various Appliances (under BOCW Rules)
FORM V	Application for Adjustment of Security Deposit (under CLRA and ISMW Rules)
FORM VI	Licence and Renewal (under CLRA and ISMW Rules)
FORM VII	Notice of commencement/ completion of work (under CLRA and BOCW Rules)
FORM VIII	Service Certificate (under 3 Rules)
FORM IX	Certificate of Medical Examination (under BOCW Rules)
FORM X	Report on recruitment and employment of migrant workmen and cessation of employment of migrant workmen (under ISMW Rules)
FORM XI	Report of Poisoning or Occupational Notifiable Diseases/ Accidents and Dangerous Occurrences (under BOCW Rules)
FORM XII	Application for Registration of Establishments Employing Contract Labour or Migrant Workmen or Building Workers (under 3 Rules)

**11.0 Agreement and Undertaking to be furnished by the contractors in respect of the Statutory Provisions:-**

(a) An undertaking as specified in Annexure should also be obtained from the contractors to ensure the remittance of EPF & ESI, Employee and Employer contribution for the respective works while claiming the bills.

(b) The TNEB (TNGECL/TNPDCL/TNPGCL/TANTRANSCO) registered contractor, who wants to execute the works in a circle shall be instructed to execute an agreement [Annexure-VII] with respective Superintending Engineer's of the circle.

**12.0 SAFETY CONDITION:-**

(i) All the relevant personal protective equipments like safety helmets, safety shoes, safety belt, goggles, nose mask, face mask, dust respirator, asbestos suit, apron, leg guards, rubber gloves, face shield hand sleeves, ear plug, ear muff, fiber helmet, fall net etc., should be supplied by the contractors to their workmen and ensure for proper usage by their workers without fail.

(ii) Proper welding machines with accessories, good and sound



construction of hand tools, power tools such as grinding machines, cutting machines, chipping tools, scaffolding materials, etc., should be used. Proper earthing to be provided wherever necessary.

(iii) The contractor shall not allow his workmen to wear loose garments, like lingoes, dhotis, watches, loose jewels and bangles, etc., while at work and smoke cigarettes, beedies etc., inside the power house premises.

(iv) The contractor shall ensure that his workmen to wear tight full or half pant while at work inside the powerhouse premises.

(v) Technically skilled and also safety-oriented supervisor should supervise the work at all time.

(vi) If any accident occurs, it should be informed to the concerned officer of TNGECL in writing by the concerned contractor immediately.

(vii) For any safety violation and non-compliance of the statutory provisions and rules the contractor is sole responsible and the contractor is liable for any prosecution and imposition of penalty as per the rules in force.

(a) Every opening in floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1 meter.

(b) All practical steps shall be taken to prevent danger to persons employed, from risk or fire or explosion, or flooding. No floor, roof, or other part of a building shall be so overloaded with debris or materials as to render it unsafe.

All necessary personal safety equipment as considered adequate by the Engineer-in-Charge shall be available for use of persons employed on the Site and maintained in a condition suitable for immediate use; and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.

(i) When workers are employed in sewers and manholes, which are in use the Contractor shall ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.

(a) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.

(b) Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.

(ii) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following :-

(a) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects

and shall be kept in good working order and properly maintained.

- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- (iii) The Contractor shall at his own expense arrange for the safety provisions as appended to these conditions or as required by the Engineer-in-Charge, in respect of all labour directly employed for performance of the works and shall provide all facilities in connection therewith. In case the Contractor fails to make arrangements and provide necessary facilities as aforesaid, the Engineer-in-Charge shall be entitled to do so and recover the cost thereof from the Contractor.
- (iv) Failure to comply with Safety Code shall make the Contractor liable to pay to the Corporation as liquidated damages an amount not exceeding Rs. 50.00 for each default or materially incorrect statement. The decision of the Engineer-in-Charge in such matters based on reports from the Inspecting Officers as defined in the Contract Labour Regulation as appended to these conditions shall be final and binding and deductions for recovery of such liquidated damages may be made from any amount payable to the Contractor.
  - (a) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.
  - (b) These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible for ensuring compliance with the Safety Code shall be named therein by the Contractor.
  - (c) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the Engineer-in-Charge or his representatives and the Inspecting Officers as defined in the Acts/Rules applicable.
  - (d) The Contractor is not exempted from the operation of any other Act or Rule in force.

## **SECTION-VII**

### **TECHNICAL**

#### **1.0 SCOPE:**

This specification covers Design, Manufacture, Supply, Erection, Testing & Commissioning of five numbers new vertical lift type fixed Wheel barrage gates (Gate No.8,9,10,11&12) (15mtrs X 9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/ Uratchikottai, Erode Generation Circle as per the technical specifications.

#### **2.0 TECHNICAL SPECIFICATIONS.**

2.1 The contractor should have experience in structural fabrication & fabrication of dam/Barrage gates works.

##### **2.2.1 The scope of work:**

(a) Design, drawing, Manufacture, inspection, shop assembly, painting.

(b) Transportation and handling, site storage, site erection, painting, testing and commissioning including provision of labour, plant and material for the above.

(c) **Testing:** All the tests at shop and site should be arranged by the tenderer and the relevant charges should be borne by the tenderer.

(d) Dismantling and removal of the old barrage Gate No.8,9,10,11 & 12, with Counterweight frame including its guide channels and hoisting mechanisms etc., and transporting to K.K.Medu store including weighing, loading, unloading, Material segregation, lead & lift etc, are at the scope of the tenderer. The segregated scrap materials should be placed properly on the location as directed by the Store person.

(e)**Working Schedule:** Necessary working schedule should be furnished by the tenderer along with drawing for approval of the competent authority.

2.2.2 The tenderer first should visit Lower Mettur Barrage Power House – 4/ Urachikottai to assess the prevailing conditions of the Barrage Gates before quoting for the new gate along with counter weight and hoisting mechanism. The tenderer should inspect the gate groove, and its components such as roller track, seal seat, side guide roller track, sill beam, existing hoisting mechanism, fixed supporting structure, counter weight groove and its side guide channels etc. If any improvements or modification required in the groove components, rectification of undulations in embedded parts, hoisting mechanism, supporting structures and deck bridge, trestle etc, it should be carried out by the tenderer himself with the approval of the TNGECL's Engineers. Any modification in the deck bridge path way and operational equipment approaches should be carried out by the tenderer.

2.2.3 The tenderer should inspect the existing hoisting mechanism before quoting for the new hoisting mechanism with suitable motor, Pulleys, Gear Boxes , Ropes , Brakes, Operating panel etc., for lifting the newly fabricated Barrage gate with Counter weight (the drawing enclosed for reference only).The tenderer should ensure for proper functioning of gate (self – lowering/ self closing). The tenderer should also ensure that the capacity of the hoisting

mechanism is enough for operation of the new barrage gate and provision for manual operation shall also be incorporated. The existing hoisting capacity was designed for 24.0 tons (counter weight provided of 62 Metric tons double acting type) to the existing gate weighing approximately **42.4tons**.

Currently non-closure of gates are being encountered due to high counter weight: Gate weight ratio and closing is achieved with assistance of Hydraulic Jack in the old gates. Hence while designing new hoisting mechanism, the ratio of counter weight of gate weight shall be optimized to ensure positive closure without any external assistance. Motor capacity shall not be compromised by increasing the weight of the Ballast (Counter weight) for reasons of economy. While vetting the design gates, it shall be borne in mind that the design of mechanism and its components shall also be vetted for adequacy and functionality.

The existing arrangement/layout shall be replicated for new hosting mechanism so as not to modify the Trestles /supporting structure. However, any minor modification required to accommodate the new hoisting mechanism shall be carried out after obtaining prior approval from the field engineers. If necessary trestle/supporting structure shall be strengthened without additional cost.

In the event of new gate weighing greater than the above (**56.5 tons**), improvements by providing pulleys along with wire rope etc., shall be contemplated at the time of designing the gates and in the scope of tenderer.

The newly designed gate shall be suitable to the existing structure for stable/smooth operation of the gates.

The specifications of the existing **wire rope for hoist** : 25 mm dia, 6 x 37 construction, steel core, tensile designation 110/120 t/inch<sup>2</sup>, ordinary lay, performed, black having minimum nominal breaking strength = 38.27 tons.&

**wire rope for counter weight:** 38 mm.dia 6x37 construction, steel core tensile designation 1960 M/mm<sup>2</sup>, ordinary lay, performed, black. as per IS: 2266/2002, for the existing system.

- 2.2.4 The existing embedded parts / Guide / Groove drawing is enclosed (for reference only) herewith to facilitate designing of gate to match the existing groove/ embedded parts. Hence while designing the gate the dimensions of the existing groove / embedded parts shall be taken into consideration. The tenderer is advised to take site measurement before designing of Barrage gate.
- 2.2.5 The Barrage gate with counter weight should be designed for self – lowering/self closing. The gates and water seals are to be designed for F.R.L conditions on one face for unbalanced water pressure. During operation, the gates are to be designed for unbalanced water pressure for F.R.L condition. Particular attention should be paid for water tightness which is an important consideration. Necessary drain holes in all members where water may collect and large holes in beam webs etc., for aeration of the water jet under the gate shall be provided. Suitable impact factor, wind load, Seismic load etc. as per I.S. Standard shall be taken for the design of all the members. The

entire bottom portion of lowest deck may be in closed type with aerofoil shape so as to ensure the free flow of water and to avoiding uplift of gate(while gate opening) since the tail race level in downstream is approximately 1.750 mtr higher than the designed level. The gates should be capable of withstanding the pressure due to overflow of 0.6 mtr over the gate.

- 2.2.6 Necessary tests such as smooth operation, leakages, strength etc., are covered under the scope. Any defect noticed during tests as well as during guarantee period is to be rectified by the tenderer at his cost. Special spanners, sockets or other wrenches necessary for repairs and maintenance shall be supplied by the tenderer.
- 2.2.7 All the necessary steel plate, structural, chequered plates, hand rails, bolt, nuts, bought out item, cement etc, though not specifically mentioned but are required for the completion of entire work shall be procured by the tenderer themselves.
- 2.2.8 The tenderer shall carry out all the works necessary for successful commissioning of gate along with counter weight & new hoisting mechanism irrespective of whether the work is covered in the specification or not.
- 2.2.9 Special tools, lead lift, transportation, accommodation etc. are in the scope of the tenderer.
- 2.2.10 The Electricity supply for dismantling and erection work, etc. will be provided by the TNGECL at tariff applicable for temporary supply at the rate prevailing during the currency of contract.
- 2.2.11 Payment will be made based on the actual work done as per terms and conditions of WCT.
- 2.2.12 Basic amenities for the laboureres shall be arranged by the contractor.
- 2.2.13 The minimum weight of Barrage gate shall not be less than 56.5 Tones. The counter weight and hoist capacity provided should suit the newly fabricated gate. The entire gate, counter weight ,hoisting mechanism should suit to the existing structure
- 2.2.14 The work has to be done in the riverbed. The irrigation season is from June to January of every year. During the rest of the period flow of water in the river is minimum. Earth bund as well as RR masonry wall would have to be constructed for diversion of water by the tenderer during erection. All water in the apron, crest and bottom seal seating area shall be satisfactorily drained away and pumped out for completing the erection commissioning work.

### 2.3(i) Design Criteria:

The general details of the Barrage pond levels are given below.

Sl. No	DETAILS	LMBPH4/U.kottai
1	MAX FLOOD LEVEL	171.25 m
2	FULL RESERVOIR LEVEL	166.25 m
3	SILL LEVEL OF BARRAGE	157.25 m
4	TOP LEVEL OF ROADWAY	173.00 m
5	No. Of PIERS	17

6	No. Of GATES	18
7	SIZE OF THE GATE up to Groove	16.200m x 9.1m for clear width of gate = 15m and height of gate = 9m

(ii) **The gates shall be designed confirming to IS 4622/2003 for a maximum working head of 9.6 meters and for clear opening of 15mtrs span X 9mtrs height.** It should be fixed wheel vertical lift, steel gate with upstream side steel plate and upstream side sealing arrangements.

(iii) The gate have to be designed with counter weight and New hoisting mechanism conforming to **IS 6938: 2005** with suitable motor, Pulleys, Gear Boxes , Ropes , Brakes, Operating panel etc., for lifting the newly fabricated Barrage gate. The regular gate should be designed for operation with concrete counter weights. Steel box sections filled with concrete block shall be designed for Counter weight steel boxes filled with plain cement concrete blocks in mix M10 shall be provided.

(iv) ` L ` type Rubber seal for side & Flat Rubber seal for bottom and both of IS 11855-2004.

(v) The maximum deflection of the gate shall be limited to 1/800 of the span (centre to centre of tracks).

(vi) The gate should be capable of working as a "regulating gate" suitable for any head up to the maximum head.

#### 2.4 **GATE WHEELS:**

Wheels will be of adequate diameter and will be so spaced and fixed that they evenly bear on the existing wheel track surface and carry equal loads in the closed position and during operation of the gate. Wheels may be of heavy duty cast steel as per IS Standard and corrosion resistance and bearing provided shall take care of deflection of gate under hydrostatic pressure. The wheel pin should be given suitable eccentricity to permit alignment. Suitable device of lubricating the wheels on sides and the wire rope pulley fixed to the top of the gate should be provided.

#### 2.5 **SIDE GUIDE ROLLERS:**

The gates shall be fitted with spring loaded guide wheel or any other suitable device (which are more efficient in function) on the sides of the gate and which would ensure that the gate enters the opening truly parallel to the existing side tracks. Spring loaded guide rollers are preferred over to guide shoes, and the tenderer shall adopt the latest practice.

#### 2.6 **SEALS:**

Gate seals for water tightness are to be provided for sides and bottom of the barrage gate. The water seals are to be provided on the upstream side of the gate for the existing seal plate and sill beam. Under all static heads and especially under low water levels, the water seals in the sides of the gate should be perfectly water tight. The water seal at the bottom of the gate which will be pressing against the top surface of sill beam due to the self weight of gate should be perfectly water tight especially under high water level conditions and water tightness shall be ensured. Stainless Steel

bolt and nut are to be used for fixing the seals. The existing seals are 'L' type Rubber seal for side and flat type Rubber seal for bottom.

## 2.7 **SEAL PLATES AND SILL BEAM:**

Rectification/reconditioning of any surface irregularities and undulations of the existing seal plate and sill beam are to be carried out by the tenderer.

## 2.8 **DOGGING BEAMS:**

The dogging beam shall be supplied for supporting the gates in raised position. They shall be located at the top of the pier. The dogging arrangement should be provided in such a way not to interfere with the existing gantry arrangement.

The dogging arrangement shall be strong enough to safely sustain the load. They should be in such section as can be easily handled by men for placing in position and removing and should be permanently chained to the frame to prevent loss of any section down to the gate slot.

## 2.9 **EXISTING HOISTING ARRANGEMENTS:**

- i) **ELECTRIC MOTOR:** Existing hoisting mechanism is having a motor capacity of 3.0 HP, 1000 RPM, TEFC, Squirrel cage Induction motor with starting torque about 160% of normal running torque, break down torque of 200% of normal running torque. Class of insulation 'B' type, continuous duty, reversible services, horizontal mounting suitable for 440 Volts, 3 Phase 50 cycles as per IS:325.
- ii) **SINGLE REDUCTION WORM GEAR:** Standard single reduction worm gear box with reduction ratio 50:1, size 500 c/c suitable for transmitting 4:1 hp at 1000 RPM, oil lubricated, suitable for reversible service at moderate shock loads.
- iii) **ELECTRO MAGNETIC BRAKE :** 150 mm.dia electromagnetic brake with flexible drum coupling suitable for connecting 440 V, single phase, 50 cycles, AC supply system having a breaking torque capacity of about 4.15 Kg.m. and fitted with continuous rated coil. Brake has supplied with hand release device.
- iv) **WIRE ROPE FOR HOIST :** 25 mm dia 6 x 37 construction, steel core, tensile designation 110/120 t/inch<sup>2</sup>, ordinary lay, performed, black having minimum nominal breaking strength = 38.27 T.
- v) **WIRE ROPE FOR COUNTER WEIGHT:** 38 mm dia 6 x 37 construction, steel core, tensile designation 1960 M/mm<sup>2</sup>, ordinary lay, performed, black.

For other details refer the drawing enclosed herewith for designing, the gate. The gate should be capable of working as a "regulating gate" suitable for any head up to the maximum head.

## vi) **HOISTING ARRANGEMENTS:**

The hoisting equipments such as reduction gears, Motors rope drums etc., shall be on the top of the operation platform. Chain hoist instead of rope hoist will not be accepted. Factor of safety provided for the steel wire rope should be stated and test certificate for the same shall be produced. In any case the factor of safety should not be less than 6.5. The maximum pull likely to come on the wire rope under the worst kind of

operation may be furnished. The hoisting equipments shall be provided with suitable weather proof metal covers. The hoisting equipments shall be in complete shape with all electrical and mechanical fittings and shall include the following:

- a) Electric motors of suitable capacity under the conditions mentioned in their specification with switches for various operations.
- b) Contact gear, Gate position indicator, for regular gate that indicates the position of gate with respect to sill level.
- c) Bearings of antifriction type of reputed make. Electromagnetic brake with flexible drum coupling of sufficient capacity to hold the gate in any position of lift. Arrangement for proper lubrication water seals etc., shall be provided for avoiding damages to bearings.
- d) Three point push button i.e raise, lower and stop.
- e) Interlocking arrangement for automatic cutting off electric supply when the hand crank is engaged for hand operation and vice versa.
- f) Reduction geared head stock shaft bearings lifting and ropes etc.,
- g) The equipment shall be suitable for use at 400 Volts 3 phase 50 cycles A.C. Energy will be available at 230 Volts A.C between phase and ground for single phase connection required. Electromagnetic brake with flexible drum coupling for control of operation to be provided.
- h) The hoist rope can be of ungalvanised flexible steel wire rope of 6 x 36 construction. Sufficient length shall be provided for two spare turns on drums or any other rope protection arrangements to be done to avoid rusting of rope.
- i) Each hoist will be controlled by push buttons provided in panels located at pier top to raise, lower or stop the gate in the closed position and will prevent the wire rope drum from unwinding on the rope drum. Necessary electrical cabling, protection, associated auxiliaries conforming to B.I.S. and best modern practice shall be provided by the tenderer. Suitable cabling , distribution network conforming to B.I.S to be provided for connecting to each hoists and control panels from the supply point to be provided by purchaser at one end.

Lever type limit switches shall be supplied to perform the following functions for hoist:

- j) Stop the gate during raising in the maximum lift position above the top of barrage and at the appropriate moment to prevent over run in the hoisting direction.
  - I. To stop the gate at 100mm above the sill level automatically and allow the gate to sink slowly by gravity and gradually sit on the sill.
  - II. Stop the hoist during gate lowering at gate closed position to prevent the hoisting rope unwinding completely off the rope drum.
  - III. The manual hand crank for hoisting the gates shall be provided
  - IV. The rope drum and open gears shall be protected by metal covers . The wire rope and rope drum to be tested for the maximum capacity.
  - V. The gate should be capable of working as "regular gate" suitable for any head up to the maximum head.
  - VI. The speed of the electrical operation for raising shall be 0.3 m per minute and the gate shall be suitable for this. This electrical equipment shall include all parts required to raise the gate by motor



and close by gravity at the controlled speed of 0.3 m per minute, through the Electromagnetic brake release etc., actuated by local control push buttons. Special provision shall be made to prevent sudden impact of the falling gate on the sill.

- VII. The level of the operating platform indicated in the drawing is only tentative. The type and design of spanning girders and level of operating platform required should be worked out in details by the tenderer.

vii) **CONTROL PANELS:**

Separate control panel shall be provided for the hoist and shall be located near the motor enclosed in properly insulated metal cabinet. Control panel shall contain single-phase presenter, thermal overload, tripping relays, circuit breakers and other relay starters, heaters if required, push buttons, indicating lights with complete wiring etc. All the controls shall be interlocked for proper functioning of the individual parts.

2.10 **WASTAGE OF STEEL:**

All the wastage of steel section and rolling margin allowances supplied by the main producers will be on tenderers account and the tenderer should consider this aspect while quoting the rates.

2.11 **INDIAN STANDARD SPECIFICATION:**

Design, drawing, materials, workmanship etc., for the various items of works covered under this specification shall be according to the latest issue of the relevant I.S.S and according to the best and latest practice adopted for such works. For bought out items, the same shall conform to relevant BIS and shall be of reputed make.

2.12 **GENERAL REQUIREMENTS:**

The tenderers shall carefully study the technical specifications and shall intimate the purchaser in case any error/ omission is discovered. As a result of such interaction, if some correction / modifications are required, the same shall be brought to the notice of all the tenderers before the date of submission.

2.13 **GUARANTEE:**

The tenderer shall furnish guarantee of the gate along with counter weight and hoisting mechanism for a minimum period of **five years** from the date of taking over of gate by TNGECL in all respects as per schedule. The tenderer shall give guarantee for the following items.

- a) Quality and strength of the materials used.
- b) Satisfactory operation of the equipment.
- c) Safe stresses in all parts under all conditions of operations.
- d) Protection of equipments against vibration and corrosion.
- e) Workmanship.

The tenderer shall correct, at his own expense, the defects, if any, during the guarantee period. Within five years after acceptance of the equipment and completion of erection if any part of the gates etc., is found defective because of workmanship or material or otherwise, the contractor

shall at his own expense, furnish and install new part and materials approved by the purchaser.

The tenderer shall assume all responsibility for direct damages causing personnel injury or property damage caused by any manufacturing defects resulting in the failure of the equipment being supplied under these specifications.

#### 2.14 MATERIALS:

a) All the materials shall be of tested quality, new, unused, free from defects and of the grade/classification envisaged in the designs. The tenderer shall furnish the test certificate for each lot of material, if so required by the purchaser. Plates with laminations discovered during welding or during inspection shall be rejected. Materials not supplied according to the approved designs/drawings shall be rejected, removed and replaced. Approval of purchaser shall not relieve the tenderer from the responsibility of supply of suitable materials. Recommended materials for some of the components are appended below.

Sl.No	Component part	Recommended material	Conforming to standards
1	All structural members for Skin plate, stiffeners, horizontal girders seal base arms etc.,	Structural Steel	IS: 2062 – 2006
2	Guide rollers	Cast Steel	IS: 1030 – 1998
3	Bushing	Bronze/Phosphor, Bronze	IS: 305 – 1981 IS: 318 – 1981
4	Rubber seal Side Seal Bottom seal	'L' Type seal Flat seal	IS: 11855 – 2004 & as per drawing
5	Wheel	Cast steel	IS: 1030 – 1998
6	Wire Rope	Ungalvanised improved plough steel	IS: 2266 – 2002
7	Sockets for wire ropes	Forged steel	IS: 2004 – 1991
8	Lifting Lugs	Structural steel	IS: 2062 – 2006
9	Rope drum	Cast steel steel	IS: 1030-1998 IS: 2062- 2006
10	Gears	Cast steel Forged steel	IS: 1030 – 1998 IS: 2062 – 2006
11	Pinions	Carbon steel	IS: 1875-1992
12	Shafts	Mild steel	Is: 226-1975/ IS:2062-2006
13	Pulleys, Couplings	Cast steel	IS: 1030 – 1998
14	Bolts and Nuts	Mild steel	IS: 1363 – 1992 Part-3(2018 revised)
15	Keys, keyways & Cotters	Mild steel	IS: 2291-1990 IS:2048-1983 IS:2292-1974

16	Bearings: tapered roller bearings	-	IS: 14691 – 1991 BS 3134-1-1979
17	Equaliser bars and turn buckles	Mild steel	IS:2062-2006
18	Covers, Pedestals	Mild steel	IS:2062-2006

In all the above latest revised edition of Indian Standards shall be followed.  
The following are other relevant IS:

1	I.S: 226-1975	Structural steel (Standard quality)
2	I.S: 808-1989	Pulley steel beam, channel & Angle Sections.
3	I.S: 961-1975	Structural steel (High, Tensile)
4	I.S: 2062-2006	Structural steel (Fusion Welding quality)
5	I.S: 1148-2009	Rivet Bars for structural purpose.
6	I.S: 1149-1982	High Tensile Rivet bars for structural Purposes
7	I.S:1367-3(2002)	Technical supply conditions for threaded Fasteners.
8	B.S:3692:2014	Precision Hexagonal Bolts, screws and nuts (BSW and BSF threads)
9	I.S: 814-1991	Specification for covered Electrodes for Metal Arc welding.
10	B.S: 639	Covered Electrodes for the Manual Metal Arc Welding of carbon and carbon manganese.
11	AWS A-5.1	Specification for Mild steel covered Arc welding Electrodes
12	I.S: 800-1962	Code of practice for use of structural steel in general building construction (Revised 2007)
13	I.S: 816-1992	Code of practice for use of Metal Arc Welding for General construction
14	I.S: 823-1964	Code of procedure for manual Metal Arc Welding of mild steel
15	I.S: 822-1991	Code of practice for inspection of welds
16	I.S: 4622-2003	Code of Recommendation for structural design of fixed wheel gates
17	I.S: 10210-1993	Criteria for Design of Hydraulic Hoists for Gates.

## 2.15 MANUFACTURE:

All the works shall be performed and completed in a thorough workman-like manner as per the best modern practice in the manufacture and fabrication of materials of the types covered by these specifications. The work shall in all cases be of high grade and carefully performed to the satisfaction of the authorized representative of the purchaser. The tenderer shall guarantee all materials and workmanship furnished by him to be free from injurious and defective materials or workmanship and shall bear all cost of repair in case of any error for which he is responsible. Workmanship shall conform to the relevant standards laid down by the Bureau of Indian standards. All sharp corners, which can damage the matching parts, shall be rounded and shall be chamfered, if required.

## 2.16 TOLERANCES:

The dimensional and weight tolerances for rolled shapes shall be in accordance with **IS:1852 and/or ASTM A6**. No rolled or fabricated members shall deviate from straightness by more than 1/1000 of the axial length or 10mm whichever is smaller.

The maximum deflection of the gate shall be limited to 1/800 of the span (centre to centre of tracks).

#### 2.17 **MACHINE FINISH:**

Where finished surfaces are not specified on the drawing, the type of finish shall be that most suitable for the part to which it applies and shall be as per IS:3073 (latest edition).

A smooth finish (two delta i.e. 1.3 to 6.3 microns) will be required for all surfaces in sliding or rolling contact and for surfaces in permanent contact, where a tight joint is required. A finish (single delta i.e. 6.3 microns) shall be given to all other machine surface where selective assembly for matching parts is specified on the drawing or otherwise required. The parts shall be ground if necessary, to obtain the limiting tolerances.

#### 2.18 **CASTINGS:**

While making patterns for the castings, care shall be taken to avoid sharp corners or abrupt changes in cross section and ample fillet shall be used. Castings shall be true to patterns and the thickness of the metal shall not vary at any point by more than 5mm from that shown in the drawings. Care shall be taken in the foundry to cool the castings properly so that they will not warp or twist. No castings will be accepted if it is warped or twisted to such an extent that machined surfaces cannot be properly finished to the dimensions shown on the drawings.

All castings shall be sound, clean, free from cracks, holes or sand holes and other defects. These shall have a workman like finish. Castings shall not be repaired, plugged or welded without the permission of the purchaser. Such permission shall be given only when the defects are small and do not affect the strength, use or machinability of the castings. No welding shall be done after the castings are finally annealed. No defect shall be removed and paint or oil applied to the surface of any casting until it has been inspected by the purchaser or the authorized representative. All castings shall be ultrasonically tested to ascertain soundness of castings.

#### 2.19 **FORGINGS:**

All forgings shall be done in accordance with the latest practice and shall exhibit physical and chemical properties envisaged in corresponding Indian Standards. Only those forgings shall be used in the work.

#### 2.20 **FABRICATION OF STRUCTURAL STEEL:**

The tenderers are supposed to perform fabrication in the best possible manner to meet the requirements of designs and drawings. However some specific guidelines are appended herein.

The tenderer shall decide if the gate leaf is to be fabricated either in shop or at site based on site conditions assessed during the site visit before offering the rates.

**2.20.1 STRAIGHTENING OF MEMBERS:**

Before being laid off or worked in any manner, structural steel shall be straight without twists, bends or kinks and if straightening is necessary, it shall be done by a method which shall not injure the metal to ensure good welding and fittings of members. All steel shall be cleaned of dirt, mill scale and rust prior to fabrication. Heating or forging shall not be restored to without prior approval from purchaser. Long plates shall be straightened by passing through a mangle or leveling rolls and structural shapes by the use of mechanical or hydraulic bar straightening machine.

**2.20.2 SHEARING, CHIPPING AND GAS CUTTING:**

Shearing, chipping and gas cutting shall be performed carefully and all portion of the work which will be exposed to view shall present a neat appearance. Finishing of sheared or cut edges of plates or shapes will not be required except as noted in these specifications.

**2.20.3 EDGES TO BEWELDED:**

The edges of plates and shapes to be joined by welding shall be properly formed to suit the type of welding selected. Where plates and shapes have been sheared, edged to be joined by welding shall be machined or chipped to sound metal. Plates and shapes to be field welded shall have their edges prepared in the shop for the type of weld selected.

**2.20.4 BENT PLATES AND SHAPES:**

Where bending or forming of plates or shapes is required, the plates or shapes shall be bent by cold forming. Heating and hammering to correct bend will not be permitted.

**2.20.5 CONNECTIONS:**

i) In respect of skin plate welding shall be adopted for joining the plate without splices, so that the entire skin plate would act as a single member.

ii) Shop connections as well as field connections shall be effected either by welding or black bolts or any approved methods.

iii) High tensile bolts where specified shall comply with the requirements of BS.1083 R Quality or its equivalent in IS:1367.

iv) Where necessary tapered washers or flat washers or spring washers shall be used with bolts. In case of high strength friction grip bolts hardened washers shall be used under the nut or the heads depending upon whether, the nut or the heads are turned to tighten the bolts. The length of the bolt shall be such that at least one thread of the bolt projects beyond the nut except in case of high strength friction grip bolts where this projection shall be at least three times the thread pitch.

**2.21 WELDING:**

a) **Welding Technique:** Care shall be taken in designs that the weld when being made, are well accessible. Overhead welding is to be avoided, if possible and flat position is to be strived for.

Drawing should clearly indicate the joint position, shop or field welding, kind of welding, method of welding, welding sizes and other required points. Symbols to be shown on the drawing should conform to relevant Indian Standards.

All welding shall be done by the electric arc method by a process which will exclude the atmosphere from the molten metal, except where otherwise specifically permitted. All welding electrodes required shall be furnished by the tenderer. Correct selection of electrodes shall be done taking due care of welding method and base metals of components. The welding Electrodes shall be of the heavily coated type designed for all position welding. The make, type and size of all welding electrodes shall be subject to the approval of the purchaser.

In assembling and during welding the component, parts of built up members shall be held in place by sufficient clamps or other adequate means to keep all parts in proper position. The surface to be welded shall be cleared of scale, slag, rust, paint and other foreign matter, except that thin coat of linseed oil need not be removed before welding. Where weld metal is deposited in two or more layers, each layer shall be brushed with a wire brush or otherwise cleaned before the subsequent layer is deposited. In welding, precautions shall be taken to minimize stresses due to heat by using proper sequence in welding.

Upon completion, the welds shall be brushed with wire brush and shall show uniform section smoothness as of weld metal. Edges and ends of fillets and butt joint welds shall indicate good fusion and penetration into base metals. Specific requirements for butt joints and fillet joints are given below.

i. **Butt Joints:** In principle, butt joints should be made with back run. Should it be not possible to do the back-run either a backing strap should be placed and welding should be so made that the melted metal fully penetrates to the backing strap or the side butt welding should be executed so that the melted metal reaches the back of the groove and a full penetration is achieved. Dye-penetrant test shall be carried out after each pass of the weld, 10% of butt weld. 10 percent of butt welds on major stress carrying members like gate girder in unsupported butt joints on skin shall be examined by radiographic tests like (X-ray, Gamma ray, etc.). 50 percent of the remaining butt joints shall be examined by any nondestructive tests namely ultrasonic tests, magnetic particle tests, etc.

ii) **Fillet Joints:** All fillet welds shall be continuous. For the main members no fillet welding should be made on members whose thickness differs substantially. Fillet weld at 'T' joints should be made, as a rule on each side of the joint, unless it is otherwise stated due to some practical reasons. Radiographic test is not normally required for fillet welds. 20% to 30% of the fillet weld shall be checked by dye-penetrant test.

#### **b) Qualifications of Welding Process:**

A specification of the welding process that is proposed to be used shall be established and recorded and, if required a copy of such

specification together with a certified copy of report of results of tests made in accordance with the process and specifications shall be furnished.

The qualification of the welding process shall be at least equal to that required by 'Standard Qualification Procedure' of the Indian Standards and the minimum requirement of the tests shall be at least as stated in the aid, 'Standard Qualification Procedure'.

### **C) Qualifications of Welders**

The tenderer shall be responsible for the quality of the work performed by his welding staff. All welders assigned to the work shall have qualification tests for welders. If at any time the work of any welder appears questionable, the welder shall be required to pass additional qualification tests to determine his ability to perform the type of work on which he is engaged.

## **2.22 TESTS AND INSPECTION OF WELDING:**

### **a. Tests on Welds:**

**i) Liquid penetration test:** In the case of weld examined by liquid penetration inspection such tests shall be carried out in accordance with the ASTM-E-165 or IS.3650. All defects shown shall be repaired and rectified.

**ii) Radiographic Inspection and ultrasonic test:** Full strength butt welds shall be radiographed in workshop/site wherever feasible in accordance with the recommended practice for radiograph testing as per IS.2595/-ASTM E-94 and U.W.51 of ASME code section VIII and ultrasonic tests to be carried out as directed by Engineer in charge at site.

**iii) Dimensions, Workmanship and Cleanliness:** The structural steel members shall be inspected at all stage of fabrication and assembly to verify that dimension tolerances, alignment and surface finish, painting where specified are in accordance with requirements shown on tenderers approved drawings. Tenderer shall maintain records of all inspection and testing which shall be made available to TNGECL's Engineer or his authorized representative.

**b. Inspection of welds:** All welds shall be inspected for flaws by any of the methods describe under clause inspection. The choice of the method adopted shall be determined by the purchaser.

The correction of defective welds shall be carried out as directed by the Engineer without damaging the parent metal. Cost of all such tests and operations incidental to correction shall be to the tenderer's account.

Qualified welders complying with IS:7318 [part 1]/1974/1991 shall be employed for the work. If necessary any component may be stress relieved according to the procedure laid down in IS 2825/1969/1984.

## **2.23 RIVETING:**

i) All rivet steel used shall conform to either **IS: 1148 or IS: 1149** as may be applicable.

ii) The parts of riveted members shall be well pinned and firmly drawn together with bolts before riveting is commenced. The drifting done during assembling shall be only such as to enlarge the holes or distort the metal.

Contact surfaces inaccessible after riveting shall be painted before assembly prior to riveting. Rivets when heated and ready for driving shall be free from slag scale and carbon deposit. When driven they shall completely fill the holes. Rivet heads shall be full, neatly made concentric with the rivet holes and in full contact with the surface of the member, gripping the members firmly. A driven rivet when struck sharply on the head with the quarter pound rivet testing hammer shall be free from movement and vibration. Loose burned or otherwise defective rivets shall be taken out not to injure the adjacent metal, and if necessary they shall be drilled out or cut with a rivet burter or chisel.

iii) Rivets shall be driven by power riveters, employing pneumatic, hydraulic or electric power. After driving, their finished heads shall be approximately hemispherical shape of uniform size throughout the work for the same size rivet, neatly finished and concentric with the holes. Rivets shall be finished and heated uniformly to a temperature not exceeding 1065°C. They shall not be driven after their, temperature has fallen below 528°C. All shop driven rivets within a distance of 425mm from a shop welded joint shall be driven after the welding is completed. Recupping and caulking of loose or defective rivets will not be permitted. While removing defective units, care shall be taken not to injure the adjacent metal and, if necessary, they shall be drilled out.

## **2.24 CUTTING:**

i) Cutting may be by shearing, cropping sawing or machine flame cutting as permitted by the TNGECL's Engineer in charge. All re-entrant corners shall be shaped notch free to a radius of at least 12mm sheared or cropped edges shall be dressed to a neat work man like finish and shall be free from distortion and burrs. The kerf on machine flame cut shall be removed where machine flame cutting is permitted for high tensile steel special care shall be taken to leave sufficient metal and all flame hardened material shall be removed by machine / edge placing.

ii) Hand flame cutting shall be undertaken only if so permitted by TNGECL's Engineer in charge and shall only be carried out by an expert in such work. Hand flame cut edges shall be ground smooth and straight.

iii) Edge planning of sheared cropped or gas cut edges are such as to warrant or specifically called for.

## **2.25 DRILLING AND REAMING:**

Holes shall be accurately located and drilled or reamed perpendicular to the face of the member and, if necessary, shall be drilled to a template. Counter-sunk, where required, shall be done carefully and to the full depth of head. Open holes in material of 18mm or less in thickness shall be sub-drilled or sub-punched before assembly and reamed during assembly. Holes in structural steel of more than 18mm in thickness shall be drilled 3mm smaller than the normal diameter of the rivet or bolt, before assembly and reamed to the full size during assembly. All members shall be shop assembled before reaming or drilling holes for field connections.



Where reamed members are taken apart for handling, the respective pieces reamed together shall be so marked that they may be reassembled in the same position in the final setting up. No interchange of reamed parts will be permitted. Poor matching, over drilling, and ovality in holes shall be a cause for rejection. Burning holes with gas is strictly prohibited.

#### 2.26 **PUNCHING:**

For sub-punching, the diameter of the punch shall be 4.5 mm smaller than the normal diameter of the rivet or bolt and holes shall be clean cut without torn or ragged edges. The thickness of materials punched shall not exceed 16 mm.

#### 2.27 **PAINTING:**

i) All paints, painting materials and accessories for painting shall be supplied by the tenderer and shall be included in the schedule of price. The paints proposed by the tenderer must be approved by the representative of the purchaser before application of the same.

##### **ii) Preparation of Surface:**

Surface preparation shall be in accordance with the following procedure:

a) Surface cleaning should be carried out as per class B standard requirement given in IS 14177. (Guidelines for painting system for Hydraulic gates and hoist).

b) Weld spatters or any other surfaces irregularity should be removed by any suitable means before cleaning.

c) All oil, grease and dirt shall be removed from the surface by the use of clean mineral spirits, xylol or white gasoline (lead free) and clean wiping materials.

d) Following the solvent cleaning, the surface, to be painted shall be cleaned of all rust, mill scale, and other lightly adhering objectionable substances by sand blasting or grit blasting to uniform bright base metal. Any grit or dust remaining after the cleaning operation shall be completely removed from the surface by wire brushing, air blowing suction or other effective mean before the surfaces is painted.

e) Surface of stainless steel, nickel, bronze and machined surface of a adjacent to metal work being cleaned or painted shall be protected by masking tape or by other suitable means during the cleaning and painting operations.

f) Primers shall be applied not later than six hours after the surface preparation is complete and prior to the development of surface rusting. In case there is considerable time gap, they should be reblasted prior to priming.

##### **iii) Shop Painting Details:**

a) Stainless steel and bronze surfaces shall only be cleaned but not painted.

b) One coat of zinc rich primer (containing not less than 90%) Zinc or dry film shall be applied by spray (preferably airless spray equipment) to all unfinished surface of the embedded parts and gates to be exposed to atmosphere or water to obtain a dry film thickness of 75 microns, which shall be followed by two coats of coal tar blend epoxy resin paint to get dry film thickness of 150 microns in each coat. These shall be applied at an interval of 24 hours. Total dry film thickness of all coats shall not be less than 350 microns.

c) All finished surfaces of ferrous metal including bolts, screw threads, etc., that will be exposed during shipment or while awaiting installation shall be cleaned and given a heavy uniform coating of gasoline, soluble rust preventive compound or equivalent.

d) Thinner should not be added to any paint. However if used, solvent should be compatible with the paint materials being applied.

#### **iv) Measures during Painting:**

a) Any bare spots or holes shall be recoated with additional application of primer.

b) All runs, sags, or dips shall be removed by scrapping and cleaning. The cleaned area should be retouched or all such defects shall be remedied by re-blasting or re-priming.

c) Special attention should be given to good coverage on rivets, welds and sharp edges and covers.

d) Suitable measures shall be taken to protect the applied primer from contact with rain, fog, mist, dust or other foreign matter until completely hardened and next coat is applied.

e) The air temperature at the time of application must not be below 10°C and relative humidity must not be above 90%.

**v) Application Procedures:** All paints and coating materials shall be in homogeneously mixed condition at the time of application and shall not be thinned except as hereinafter specifically provided. Any warming of the paint shall be performed by means of hot water bath. All surfaces to which paint shall be applied immediately after cleaning, and except otherwise specifically provided, shall be applied by either brushing or by airless spray. When paint is applied in spraying a mechanical agitator type paint pot shall be used. Means shall be provided for removing all free oil and moisture from the air supply line of all spraying equipment. Each coat of paint shall completely cover the surfaces and shall be free from runs, sags, pinholes and voids. Each coat of paint shall be allowed to dry or harden thoroughly before the succeeding coat is applied. All paints shall be applied by skilled workers in a workman like manner. Paint shall not be applied during damp weather and on the surfaces which are not entirely free from moisture. Rust preventive compound shall be applied by any convenient method to ensure complete coverage of heavy coating. After the final application, the paint film shall be allowed to cure at least for 7 days.

**vi) Field Painting:** The painted metal work shall be handled with care so as to preserve the shop coats. The area of the shop paint, which has

been damaged during transport shall be cleared to base metal and repainted. Paint applied to such areas shall be of the same type as used originally in shop painting.

## 2.28 **CATALOGUES AND OPERATING INSTRUCTIONS:**

Nine sets of catalogues indicating the complete list of parts, as-built drawings and operating instructions in the English language, which may be needed or useful in operation, maintenance, repair, dismantling or assembling and for the repair and identification of parts for ordering the replacement, shall be supplied by the tenderer to the purchaser. Such catalogues shall be in hard cover bound books should have suitable jackets polythene paper. Nine numbers soft copies of the above shall also be furnished.

## 2.29 **PREPARATION FOR DESPATCH:**

### **i) Unit Marking, Match Marking and Transportation Designation:**

Each part of the gates which is to be transported as a separate piece, shall be marked to show the unit of which it is a part and match marked to show its relative position to facilitate assembly in the field. Unit mark and match marks shall be made with heavy steel stamps and paints. Each piece, sub-assembly or package transported separately shall be labeled or tagged with transport designation consisting of the specification number and the marks number of such pieces, number of parts of grouped such-assemblies or contained in package.

**ii) Weights:** Before dispatch the tenderer shall determine (by the most accurate means available) the net weight of each piece of assembly that is to be shipped as a unit exclusive of boxes, crates or kits. The copies listing the net weight shall be painted on the respective pieces of assemblies or stated on the tags attached thereto.

**iii) Packing:** All parts shall be prepared for dispatch so that slings for handling may be attached readily while parts are to be moved. Where it is unsafe to attach slings to the box, parts shall packed with slings attached to the part and slings shall project through the box or crate so that attachment can be made easily. All parts shall be properly secured, packed to withstand handling during transportation. All packing shall allow for easy removal and checking at site. Special precautions shall be taken to prevent rusting of steel and iron parts during transit.

Suitable methods proposed to be adopted for protection against moisture shall be subjected to be the prior approval of the purchaser. Each bale or package is to contain packing quoting number and date of tenderer's order and the name of office placing the order.

After delivery of material at site, all packing shall become property of the purchaser. Notwithstanding anything stated in this clause the tenderer shall be entirely responsible for loss, damage or depreciation to the stores due to faulty and insecure packing. The equipment shall be insured for loss or damage during transit and storage at site at the cost of the tenderer.

- 2.30 **ERECTION:** The equipment covered by these specifications shall be erected by the tenderer at the site. The tenderer shall be required to furnish all erection drawings.

The tenderer shall prepare a complete erection procedure, which shall describe the sequence of operations to be carried out, the method to be used, the measurements to be taken out and the tolerances to be met, in transaction and alignment of the equipment. Such procedure shall have the approval of the purchaser prior to the commencement of fabrication and when approved shall form a part of the specification furnished by the tenderer.

2.31 **INSTALLATION OF GATE LEAVES AND HOISTS:**

It is desirable to avoid the flood period to perform erection of gates. Should it be necessary to do so, due precautions should be taken against floods, since the gates may be submerged in water sustaining damages, or the half erected gates may disturb the water flow causing damages to the civil structures.

The other may be to have assembly yard at a high position so that the flooding water may have no effect on the erection work. All the components of the gates and hoists shall be erected perfectly, giving due cognizance's of the unit and match marks on the components. All the components designed to fit snugly and to water tight shall be assembled to ensure water tightness.

- 2.32 **ERECTION PERSONNEL:** Required number of skilled as well as unskilled personnel shall be arranged by the tenderer for erection of the equipment covered in these specifications. For marking at site and for checking up alignment etc, the services of surveyor shall be provided by bidder if necessary.

- 2.33 **TOOLS AND TACKLES:** The tenderer shall provide all tools and tackles to be used in the above erection work.

2.34 **ERECTION OF STRUCTURAL STEEL:**

- 2.34.1 **SCOPE:** This specification cover general requirements for erection of structural and miscellaneous steel.

- 2.34.2 **ERECTION SCHEME:** Each bid shall be accompanied by a broad erection scheme prepared by the bidder after a thorough study of the bid drawing and the site conditions. This erection scheme shall describe the methods proposed to be employed by the tenderer for unloading, transporting within the site, handling, assembling, hoisting and erection of the structural and miscellaneous steel components and the type, capacity and quantity of equipment that the tenderer proposes to bring to site for all these operations.

2.34.3 **SITE OPERATIONS:**

i) Tenderer shall complete all preliminary works at site well before the arrival of structural steel, such as establishment of office, stores, unloading gantry, labour quarters if any electrical and water connections, electrical winches, derricks, cranes, compressors, all tools and tackles, rivet guns, welding sets, torque wrenches, spud wrenches, staging etc., as part of

his contract and any other work that may be necessary so as to start erection immediately after the arrival of first batch of steel at site.

ii) Tenderer shall provide necessary passage ways, fences, safety belts, helmets, light and other fitting to the satisfaction of engineer and to meet the rules of local authorities and for protection to his man and materials. A licensed electrician shall be kept on the job for period to maintain tenderer's electrical equipment and connection.

iii) Tenderer shall protect all existing plant structures, piping, conduits, equipment and facilities against damage during erection, any damage caused by tenderer shall be rectified entirely at tenderer's cost to the satisfaction of TNGECL's Engineer in charge. If work has to be carried out adjacent to existing switchyards or electrical installation which are live, tenderer must ensure suitable safety precaution in consultation with TNGECL's Engineer in charge.

iv) If a portion of the work area cannot be made available to tenderer for his activities due to operations being carried out by other agencies he shall suitably modify his sequence of operation so as to continue work without interruption. Tenderer shall work in co-ordination with other agencies working on the site and plan his work suitably so as not to hinder the progress of other works at site.

**2.34.4 HANDLING AND STORAGE:** No dragging of steel shall be permitted. All steel shall be stored 300mm above ground on suitable packing to avoid damage, in the order required for erection, and with erection marks visible. All storage areas shall be prepared and maintained by tenderer.

Scratched or abraded steel shall be given a coat of the primer for protection after unloading and handling prior to erection. All milled and machined surface shall be properly protected from rust / corrosion by suitable coating and also from getting damage.

**2.34.5 ASSEMBLY AND CONNECTIONS:**

i) Field connection may be effected either by welding or by use of block bolts. All welding shall be in accordance with I.S.816-code of practice for use of metal arc welding for general construction in mild steel and I.S.823 – code of procedure for manual arc welding of mild steel.

ii) Riveting and high strength friction grip bolting shall be in accordance with the specification.

iii) All assembling shall be carried on level platform.

iv) Drifts shall be used only for drawing the work to proper position and must not be used to such an extent as to damage to holes. Size of drifts, larger than the nominal diameter of hole shall not be used. Any damaged holes or burr must be rectified to the satisfaction of the TNGECL's Engineer in charge.

v) Correction of minor misfits and reasonable amount of reaming and cutting of excess stock from rivet shall be considered as a part of erection. Any error in shop which prevents proper fit on a moderate amount of

reaming and slight chipping or cutting shall be immediately reported to TNGECL's Engineer in charge.

## **2.35 INSPECTION, TESTING AND FINAL ACCEPTANCE:**

**2.35.1 PLACE OF MANUFACTURE AND INSPECTION:** The tenderer shall state in his tender the place of manufacture, testing and inspection of various portion of the work included in the contract. Authorized representatives of the purchaser may be present at any time or all tests and the tenders shall provide all necessary facilities for the same. Representatives of the purchaser shall also be entitled to access to tender's, sub-tenderer's work at any time during the working hours for the purpose of inspecting the manufacture of equipment and materials.

**2.35.2 INSPECTION:** All supplies (which include without limitation, raw materials, components, intermediate assemblies and end products) shall be subject to inspection and test by the purchaser to the extent practicable at all times and places. Inspection shall be carried out in accordance with relevant Indian standards.

If any inspection or test is made by the purchaser in the premises of the tenderer, the tenderer without additional charges shall provide all reasonable facilities and assistance for the safety and convenience in the performance of their duties. In case of rejection, the purchaser shall not be liable for any reduction in value of samples used in connection with such inspection and test. All inspection and test by the purchaser shall be performed in such a manner as not to unduly delay the work. The purchaser reserves the right to charge the tenderer any additional cost of inspection and test when supplies are not ready at the time of such inspection and test. Acceptance or rejection of the supplies shall be made as promptly as practicable after delivery except as otherwise provided in the contract but failure to inspect and accept or reject supplies shall not relieve the tenderer for responsibility for such supplies as are not in accordance with the contract requirements.

The inspection and test by the purchaser of any supplies or lots thereof dose not relieve the tenderer from any responsibility regarding defects or other failure to meet the contract requirements which may be discovered prior to the acceptance.

Except as otherwise provide in the contract, acceptance shall be conclusive except as regards latent defects, fraud or such gross mistakes as amount to fraud.

The tenderer shall provide and maintain the inspection system acceptable to the purchaser covering the supplies hereunder. Records of all such inspection work shall be kept complete by the tenderer and available to the purchaser during the performance of the contract and for such longer period as may be specified elsewhere in the contract.

**2.35.3 DESPATCH CLEARANCE:** Material which warrants test/inspection shall be despatched only after despatch clearance from the purchaser and approval of the test certificate.

- 2.35.4 **OPERATON TEST:** The contractor shall carryout in the presence of site authorities such test on the gate equipment to determine that the gate will fulfill the function for which they have been designed. Tests shall be repeated, if necessary, until successfully carried out to the satisfaction of the purchaser. Leakage tests and operational tests shall be carried out at the convenience of the site authorities after completion of other portions of the work and when the reservoir is near to full level. Also the site authorities shall have the right to ask the contractor to carry out such test when the reservoir is at a level other than full reservoir level.
- 2.35.5 **DRY TEST:** Operational test in dry shall be carried out as soon as possible after completion of erection. The tests shall include at least two complete traverses from the maximum raised position to the full sealing position. All adjustment clearance brakes etc., shall be checked for proper operation.
- 2.35.6 **WET TEST:** These tests should stipulate the actual operating conditions as closely as possible. At least two complete traverses will be made from the fully closed position to the normal raised position as follows:
- a) When gates are closed, raise gate to their normally open position in steps and observe the performance including vibration.
  - b) Lower the gate to the full closed position in steps and observe the performance of the gates including vibration.
- 2.35.7 **LEAKAGE TESTING:** Leakage test shall be carried out with the gates lowered on to the sill. Before measuring the leakage, the gate shall be raised and lowered several times by a meter or so in order to dislodge any debris that may have lodged in the side seal seats. The leakage shall then be measured and recorded. The maximum permissible leakage shall be 5-10 litres per minute per meter length of seal. However the contractor should aim at nil leakage.
- 2.35.8 **New Hoisting mechanism capacity assessment test:** While carrying out the above tests, the new hoisting mechanism shall be operated to its rated capacity which will be ascertained by measuring the motor load current.
- 2.35.9 **FINAL ACCEPTANCE:** The final acceptance of the equipment shall be based on the following:
- a) Quality and workmanship of the equipment.
  - b) Satisfactory operation of the equipment after erection as required under these specifications.
  - c) Acceptance of various tests by the purchaser as mentioned in clause 2.32.5 to 2.32.7. All tests shall be conducted by the contractor in the presence of competent authority. On successful completion of all tests the equipments shall be accepted but all the responsibility shall remain with the supplier within the guarantee period.
- 2.36 **FAILURE TO MEET GUARANTEE:** Should any part of equipment fail to meet the guarantee or other requirements of the contract within the time covered by the guarantee period, the purchaser may reject the equipment or may direct the contractor to proceed at once to make alterations or furnish

new parts or after making alterations to the existing parts and of tests made necessary at the cost of the contractor to meet the guarantee and other requirements of the specification.

If after due notice, the contractor refuses or persistently neglect to correct any defect, error, omission or any other failure of the apparatus to meet the requirements of the specifications, which might develop during the guarantee period, the purchaser may process to correct such defects, errors, omissions or failure and deduct from payments or money due to the contractor an amount equal to the actual expenses so incurred and incidental expenses thereof or from the bills of other works of TNGECL's or any other Tamil Nadu Government department.

- 2.37 **DEFECTIVE EQUIPMENT:** In case any part of the equipment / components is found to be defective in materials or workmanship or develops defects or does not otherwise meet the requirements of the specifications including errors or omissions on the part of the contractor the following shall apply:

**a) Defects disclosed prior to final acceptance:**

Any defect in materials or workmanship or other failure to meet the requirements of the specifications including errors or omission on the part of the contract, which are disclosed prior to final payment or prior to final acceptance tests, whichever occurs at a later date shall if so directed by the purchaser, be corrected entirely at the expense of the contractor.

**b) Defects disclosed after final acceptance:**

Any latent defects not disclosed before date of final acceptance shall be corrected promptly by the contractor entirely at his expense provided that the total period during which the contractor is liable for replacement due to latent defects shall not exceed sixty months after date of final acceptance of the equipments.

- 2.38 **OPERATION OF UNSATISFACTORY EQUIPMENT:** If the operation of the equipment after the installation proves to be satisfactory to the purchaser, the purchaser shall have the right to operate and use the equipment, while unsatisfactory article can be taken out of service for correction of latent defects, errors or omissions provided that the period of such operation of any use pending the correction of latent defects, errors or omissions shall not exceed one year without mutual consent of the contractor and the purchaser.

- 2.39 **WORKMEN COMPENSATION:** All the workers and supervisory staffs should have insured as per Workmen Compensation act. The TNGECL will not be responsible for any compensation in the event of any loss due to accident. The same has to be borne by the contractor. Any direct or indirect loss due to accident has to be made good by the contractor.

- 2.40 **PERIOD OF WORK:**

**Drawings:** Drawing along with the design calculation should be submitted within 30 days from the date of receipt of order. After receipt of drawings from the company, the drawing will be scrutinized and approved within reasonable time.



Third party's scrutiny of design/drawings of the gates if required, shall be carried out by the purchaser, the cost of which should be borne by the tenderer.

The barrage gate with counter weight and new hoisting mechanism should be manufactured simultaneously and erected according to site condition as the case may be within the overall period of 150 days from the date of receipt of handing over of the respective gate. Only Two numbers barrage gates will be handed over at a time for the replacement works. This period also includes removal of old damaged barrage gate along with counter weight and existing hoisting mechanism and its accessories etc.,.

- 2.41 **REGARDING OLD DAMAGED GATE NO.8,9,10,11&12:** It is the scope of contractor for cutting, removal of the old barrage gate no.8,9,10,11 &12 and counter weight and also with the existing hoisting mechanism and devolution of scrap to the central stores, Kuthiraikalmedu which is approximately 10 km away from Lower Mettur Barrage Power house – 4, Urachikottai. Material segregation and cleaning of scrap material (removal of Oil and Grease from steel ropes, Bearings, Rope Drums, Pulleys, and Rollers etc., ) should be carried out by the tenderer as per site Engineer / Stores personal instruction.

#### 2.42 **DRAWINGS AND SPECIFICATIONS:**

- 2.42.1 Inspection before the commencement of the job should cover all aspects of the job with a view to eliminating all potential sources of defects.
- 2.42.2 The contract specifications should be studied to ascertain the standard of quality required, and the end use of the products.
- 2.42.3 The standard specifications prescribed for the contract, and the general standard specifications applicable to the class of work should be examined carefully.
- 2.42.4 All the relevant drawings should be studied in respect of weld details, dimensional tolerances, process specifications, and any special requirements specified.
- 2.42.5 Where the contract specifications does not indicate all the standard specifications applicable, or where it has been left partly or wholly to the discretion of the inspector, the standard specifications to be applied on the job shall be decided in consultation with the TNGECL.
- 2.42.6 Any other consumables and materials required for the completion of the work which are not specifically mentioned in the tender has to be borne by the tenderer.

### 3.0 **GENERAL SPECIFICATIONS:**

- 3.1 The tenderer can inspect the Barrage gates of Lower Mettur Barrage Power House – 4 /Uratchikottai before quoting the rates, in order to have an overall idea of the constructional features of the Barrage Gates and its related nearby structural arrangements.
- 3.2 Where the contract specifications does not indicate all the standard specifications applicable, or where it has been left partly or wholly to the

discretion of the inspector, the standard specifications to be applied on the job shall be decided in consultation with the TNGECL.

- 3.3 Any other consumables and materials required for the completion of the work which are not specifically mentioned in the tender has to be borne by the tenderer.
- 3.4 Cost of transport of materials, lead & lift, scaffolding tools, machineries required for carrying out the work in complete shape is in the scope of the contractor.
- 3.5 The contractor should employ skilled laboures.
- 3.6 All T & P`s and consumables required for the work should be provided by the contractor at his scope.
- 3.7 The work should be carried out as per the specification and instruction of the Engineer in charge by engaging adequate skilled & suitable labourers to complete the entire work in time.
- 3.8 During the course of execution of work if other persons meet with an accident, the contractor alone is responsible to compensate the individual for loss.
- 3.9 No damage should be caused to TNGECL's property and equipment. In the event of any damage caused, the same should be set right by the contractor at his cost.
- 3.10 The contract is liable for termination at any time during the period of contract without assigning any reasons thereof.
- 3.11 All the workers and supervisory staffs should be insured as per Workman Compensation Act. The TNGECL will not be responsible for any compensation in the event of any loss due to accident. The same has to be borne by the contractor. Any direct or indirect loss due to accident has to be made good by the contractor.
- 3.12 If the contract does not carry out the work to the entire satisfaction of the Engineer in charge, the contract will be liable for termination without any reasons therefore.
- 3.13 The contractor should take care and ensure that law and rules are not violated in doing the work either by himself or by his personnel's.
- 3.14 The cleaned surface to be painted should be shown to the field Engineer for his approval before commencement of the painting works.
- 3.15 The works should be done carefully and without hindrance to other works carried out by TNGECL in that area.
- 3.16 The workers shall confine themselves, within the areas for which the works contract has been awarded as specified by the Engineer.

- 3.17 The contractor should provide adequate safety appliance to his employee for which no claim from TNGECL can be made.
- 3.18 All the workers should be insured against accident. The TNGECL will not be responsible for any compensation in the event of accident s etc.,
- 3.19 Risk and Insurance Policy before commencement of work, the contractor is to take accident risk Insurance policy for the workman covering the entire period of work and produce the same to the site Engineer for verification.
- 3.20 During flood conditions or such kind of any other unavoidable circumstances, the work may have to be stopped as per the instructions of Engineer in charge.
- 3.21 The work should be carried out as per the specification and instruction of the Engineer in charge by engaging adequate skilled & suitable labourers to complete the entire work in time.
- 3.22 The devolution of released gates, counter weight and hoisting mechanism materials to the Central Stores, Kuthiraikalmedu is the scope of the contractor. The devolution of released gate, counter weight and hoisting mechanism materials to the Central Stores, Kuthiraikalmedu is the scope of the contractor, All the devolution materials areshould be cut into manually handled size both Volume and Weight. Material wise Segregation of materials (MS, Cast iron, Corban steel, EN8, Bearing Bronze/Brass etc) should be done by the contractor as per instruction of site Engineer to the Central Stores, Kuthiraikalmedu personnel.
- 3.23 The contractors executing the works contract/contract in which labours are engaged should provide an accidental insurance scheme for Rs.2,00,000/- additionally under Pradhan Mantri suraksha Bima Yojana (PMSBY) scheme through the Bank/Post Office for a premium of Rs'20/- per annum per person, to all the labours engaged by them for the works in TNGECL.

#### **4.0 ELECTRICITY RULES :**

All works shall be carried out in accordance with the latest provisions of the Indian Electricity Act and the rules there under unless modified by this specification.

#### **5.0 TECHNICAL CLARIFICATION:**

Any technical clarification and drawing regarding this tender may be obtained from Superintending Engineer/Erode Generation Circle/ Uratchikottai. (04256-235343).

Sd/-

**CHIEF ENGINEER/HYDRO**

**SECTION – VIII – FORMATS**  
**SPECIFICATION NO.HE-2516**  
**SCHEDULE - `A'- PRICE SCHEDULE**  
**(To be filled ONLINE by the Tenderer)**

Name of the work: Design, Manufacture, Supply, Erection, Testing & Commissioning of Five numbers new vertical lift type fixed Wheel barrage gates (Gate No.8,9,10,11&12) (15mtrsX9mtrs) with counter weight & hoisting mechanism along with Dismantling of old barrage gate with counter weight & hoisting mechanism at Lower Mettur Barrage Power House-4/Uratchikottai, Erode Generation Circle as per the technical specifications.

**SCHEDULE OF RATES:****Prices in Rupees**

Sl No	Description	Quantity	Material		Labour	
			Rate per gate in Rs.	Amount in Rs.	Rate per gate in Rs.	Amount in Rs.
1	Design, fabrication, painting, supply and delivery at site of Vertical lift Fixed wheel, Counter weight type Barrage gate suitable for clear opening of <b>15.0 M X 9.0 M</b> fabricated out of MS Plates and other steel materials/structures conforming to <b>IS 4622 : 2003</b> for the existing concrete Groove for the following specification: MWL : 171.22 M, FRL : 166.25 M Sill : 157.25 M, Maximum working head : 9.6 Mtr	5 Nos.	To be filled online only	To be filled online only	To be filled online only	To be filled online only
2	Design, fabrication, supply, delivery at site of New hoisting mechanism conforming to <b>IS 6938:2005</b> with suitable motor, Pulleys, Gear Boxes, Ropes, Brakes, Operating panel etc., for lifting the newly fabricated Barrage gate cum Counter weights.	5 Nos.	To be filled online only	To be filled online only	To be filled online only	To be filled online only
3	Design, fabrication, supply and delivery at site, the Counter weights with new Frame and guide channels suitable for the existing arrangement(groove) for the newly proposed Barrage gate (Item No:1) (The tonnage of the counter weights shall be suitably optimised with the hoisting motor capacity for efficient operation as per applied practices/ standards )	5 Nos. (5 Lots)	To be filled online only	To be filled online only	To be filled online only	To be filled online only
4	Cost of vetting the design/drawings of Barrage gates, counter weight and hoisting mechanism by reputed	1 No. (L.S)	0.0	0.00	To be filled online only	To be filled online only

	consultant.					
5	Erection, testing and commissioning of Barrage gate, Counter weight and hoisting mechanism in conformation with <b>IS 7718 : 1991</b>	5 Nos. (L.S)	0.0	0.00	To be filled online only	To be filled online only
6	<b>Dismantling:</b> <b>a.</b> Cutting and Removal of the old damaged barrage gate and devoluting the scrap materials to Central Stores/ KKMedu. <b>b.</b> Dismantling of hoisting mechanisam and devoluting the scrap materials to Central Stores/ KKMedu <b>c.</b> Dismantling of Counterweight, frame and guide channels and devoluting the scrap materials to Central stores / KK Medu.	5 Nos. (L.S)  5 Nos. (L.S)  5 Nos. (L.S)	0.00  0.00  0.00	0.00  0.00  0.00	To be filled online only  To be filled online only  To be filled online only	To be filled online only  To be filled online only  To be filled online only
	Sub Total I		(For Materials)		(For labour)	
	Total (Material+labour)					
	IGST/(SGST+CGST) in % (With SAC Code)					
	Grand total					

\* For the bidders inside TN - GST is (CGST + SGST)

For the bidders outside TN – GST is IGST

**Note:** The weight of the new gate shall not be less than 56.5 Tons. Gate weight less than 56.5 Tons are liable to be rejected. The intending bidders are requested to inspect the site before submitting the offer so as to make sure of the requirements. The contractor will alone be responsible for ignoring site visit before tendering and TNGECL will in no way be liable for this lapse on the part of the bidder. While quoting the rates the bidder shall indicate the HSN code and SAC for all the tendered items as per GST Act.

COMPANY SEAL

DATE

SIGNATURE

DESIGNATION

COMPANY NAME

NOTE:

\*\* F & I : Freight and Insurance

P & F : Packing and Forwarding.

: For supply at the destination stores.

Sd/-

**CHIEF ENGINEER/HYDRO**

**Schedule- B****SPECIFICATION NO.HE -2516****DEVIATION FROM TECHNICAL SPECIFICATION**

All technical deviations from the specification shall be filled in by the Tenderer, clause by clause, in the Schedule.

SECTION NO.	CLAUSE NO.	DEVIATION

The Tenderer hereby certifies that the above-mentioned are the only deviations from the Technical Specification and the tender conforms to the specification in all other respects.

COMPANY SEAL:

SIGNATURE :

DATE:

DESIGNATION :

COMPANY :

**SCHEDULE – C**  
**SPECIFICATION NO.HE -2516**  
**DEVIATION FROM COMMERCIAL SPECIFICATION**

All Commercial deviations from the specification shall be filled in by the tenderer, clause by clause, in the Schedule.

<b>SECTION NO</b>	<b>CLAUSE NO</b>	<b>DEVIATION</b>

The tenderer hereby confirms that the above mentioned are the only deviations from the Commercial Specification and the tender conforms to the specification in all other respects.

COMPANY SEAL

DATE

SIGNATURE

DESIGNATION

COMPANY NAME

**SCHEDULE –D**  
**SPECIFICATION NO.HE -2516**  
**STATEMENT OF WORK ORDERS EXECUTED/UNDER EXECUTION DURING**  
**THE PAST TEN YEARS AS ON DATE OF TENDR OPENING**

Sl No	Name & Address of the Organization incl. other SEBs	Name of the material/works	P.O./ WCT No. & Date	Qty	Value of order in Rs. Lakhs FOR (D) Price **	Schedule date of completion of Order	Actual date of Completion of Order	Whether PO Copy is Enclosed (Yes/ No)	Whether End User Certificate Copy is Enclosed (Yes/ No)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
** Split up details such as Ex-works Price, F&I and GST FOR (D) per each may be enclosed separately.									

NOTE:

1) Copies of orders received shall be enclosed.

COMPANY SEAL

DATE

SIGNATURE

DESIGNATION

COMPANY NAME



**SCHEDULE – E**  
**TAMIL NADU GREEN ENERGY CORPORATION LIMITED**  
**DECLARATION FORM**  
**SPECIFICATION NO.HE-2516**

To  
The Chief Engineer/Hydro,  
TNGECL,  
5<sup>th</sup> Floor, Eastern Wing,  
NPKRR Maaligai, Electricity Avenue,  
144, Anna Salai,  
Chennai – 600 002.

Dear Sir,

1. Having examined the above specification together with the accompanying schedules etc., we hereby offer to supply the equipment covered in this specification at the rates entered in the attached schedule of prices.

2. We hereby guarantee the particulars entered in the schedules attached to the specification.

3. In accordance with security deposit cum performance guarantee clause, Section-V, of the specification we agree to furnish security deposit cum performance guarantee to the extent of 5% of the total value of the contract/ retain 5% payment till the expiry of guarantee period.

4. Our company is not a potentially Sick Industrial Company or a Sick Industrial Company in terms of Section-23 or Section-15 of the Sick Industrial Companies (Special Provisions) Act, 1985.

Yours faithfully,

PLACE :  
DATE :  
COMPANY SEAL :

SIGNATURE :  
DESIGNATION :  
COMPANY :

**SCHEDULE-F**  
**SPECIFICATION NO.HE -2516**  
**DECLARATION FORM**

**To be signed with company seal on letter head and uploaded in the technical Bid**

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head) Date:

To,

-----

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No:-----Name of Tender/Work

Dear Sir,

1. I/We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

-----

As per your advertisement, given in the above mentioned website(s).

2. I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from page No.----- to -----(including all documents like annexure(s), schedule(s), etc.,) which form part of the contract agreement and I/We shall abide hereby the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organization too has also been taken into consideration, while submitting this acceptance letter.

4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s) corrigendum(s) in its totality / entirety.

5. In case any provisions of this tender are found violated, then your department/organization shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,  
 (Signature of the bidder, with official Seal)

**SCHEDULE – G**  
**SPECIFICATION NO.HE -2516**

**QUESTIONNAIRE-A**  
**CHECK LIST FOR BID QUALIFICATION**

**(TO BE KEPT IN THE ENVELOPE-A"COMMERCIAL AND TECHNICAL BID")**

S.No.	Particulars	Bidder's Response.
01	Name and Address of the Firm/Company.	
02	Address of the Registered office, Phone Nos. etc.,	
03	Address of the Factory/Works, Phone Nos. etc.,	
04	Fax No. for correspondence and E-Mail address.	
05(a)	Confirm whether the tenderer is Barrage/Dam Gates manufactured and supplied/major rectification work have been carried out at any State Electricity Boards or PSUs or Govt. of India or state government organization or Undertaking of Central Govt. or State Govt. during the preceding Ten years as on the date of tender opening as per the tendered works.	Yes/No
(b)	If yes, whether attested documentary evidence is enclosed as per BQR condition.	
(c)	If so, list the documentary evidence.	
06	Whether the bidder is old supplier/contractor to TNGECL.	Yes/No
07	Whether the attested copies of orders executed to Power Utilities in State or Central Sector/Public Sector Undertakings/any Govt. Organizations/Govt. undertakings enclosed.	Yes/No
08	Whether attested copies of performance certificates from the end users enclosed.	Yes/No
09	Annual Turnover of the Bidder for the preceding three years. 2021 – 2022 2022 – 2023 2023 – 2024	
10(a)	Whether attested copies of the documentary evidence produced for the annual turnover.	Yes/No
(b)	If so, whether certificate from auditor furnished or copies of audited annual statement of accounts furnished, duly attested ones.	

**UNDERTAKING**

I , Sole Proprietor / Partner of M/s. give undertaking that details given in the above QUESTIONNAIRE-A are correct to the best of my knowledge and I agree to abide by all your Tender / Order terms & conditions.

Date :

Place :

SIGNATURE OF THE TENDERER  
NAME

STATUS IN THE COMPANY  
(AFFIX SEAL OF THE COMPANY)

**QUESTIONNAIRE-B**  
**SPECIFICATION NO.HE -2516**  
**CHECK LIST FOR COMMERCIAL TERMS**  
**(TO BE KEPT IN THE ENVELOPE- A"COMMERCIAL AND TECHNICAL BID")**

S.No.	Particulars	Bidder's Response.
01	<b>EARNEST MONEY DEPOSIT:</b>	
(i)	Amount.	Rs.11,00,000/-
(ii)	Mode of payment.	Through TN Govt. e-procurement Portal
(iii)	If exempted state whether the bidder is.	SSI unit of Tamil Nadu/ SSI unit registered with NSIC/Unit of Government of Tamil Nadu.
(iv)	If SSI unit state whether copy of duly attested permanent Registration Certificate enclosed.	Yes/No
(v)	Whether the material tendered is included in the certificate.	Yes/No.
(vi)	Validity of the permanent registration certificate.	Yes/No.
(vii)	Whether duly attested undertaking enclosed in lieu of EMD.	Yes/No.
02	Whether the offer is valid for a period of 180 (One hundred and eighty) days from the date of opening of commercial/Technical bids.	Yes/No.
03	<b>PRICE:</b>	
i)	Whether quoted firm price valid for the entire contract period.	Yes/No.
ii)	Whether the quoted price contain the following breakup price.	Yes/No.
a)	Unit ex-works price.	Yes/No.
b)	Unit Freight and Insurance charges, P & F Charges	Yes/No.
c)	Unit GST applicable (Percentage and amount).	Yes/No.
iii)	Confirm that the price quoted is after taking into account of the ITC benefit.	Yes/No.
iv)	Whether the tenderer is agreeable in case of delayed delivery, the GST prevailing on the date of actual delivery or the GST applicable on the date of contractual delivery date whichever less shall only be payable.	Yes/No.
v)	Confirm that Freight and Insurance charges quoted are applicable for delivery to any of the TNGECL stores in Tamil Nadu including the unloading by the supplier.	Yes/No.
04	Whether the tenderer is agreeable for the following clauses specified under Section-V of the Specification.	

i)	Payment terms (Clause-6.0 )	Yes/No.
ii)	Security Deposit cum PG (Clause-7.0 )	Yes/No.
iii)	Completion Period (Clause-8.0 )	Yes/No.
iv)	Liquidated Damages (Clause-10.0)	Yes/No.
v)	Guarantee (Clause-12.0)	Yes/No.
vi)	Jurisdiction for legal proceedings (Clause-18.0)	Yes/No.
05	Whether tenderers furnished their permanent Account Number (PAN) and GSTIN in their offer.	PAN No. GSTIN No.
06(i)	Whether the tenderer has accepted all the commercial terms of specification of TNGECL.	Yes/No.
(ii)	If not, give details of commercial deviation in the deviation schedule C.	

### **UNDERTAKING**

I ,                      Sole Proprietor / Partner of M/s.                      give undertaking that details given in the above QUESTIONNAIRE-B are correct to the best of my knowledge and I agree to abide by all your Tender / Order terms & conditions.

Date :

SIGNATURE OF THE TENDERER

Place :

NAME

STATUS IN THE COMPANY  
(AFFIX SEAL OF THE COMPANY)

**QUESTIONNAIRE-C**  
**SPECIFICATION NO.HE -2516**  
**CHECK LIST FOR TECHNICAL TERMS**  
**(TO BE KEPT IN THE ENVELOPE – A “COMMERCIAL AND TECHNICAL  
 BID”)**

S.No.	Particulars	Bidder's Response.
01(i)	Whether the equipment / material offered is exactly as per technical specification of TNGECL.	Yes/No.
(ii)	If not, give details of technical deviation in the deviation schedule B.	

**UNDERTAKING**

I ,                      Sole Proprietor / Partner of M/s.                      give undertaking that details given in the above QUESTIONNAIRE-C are correct to the best of my knowledge and I agree to abide by all your Tender / Order terms & conditions.

Date :

SIGNATURE OF THE TENDERER

Place :

NAME

STATUS IN THE COMPANY  
 (AFFIX SEAL OF THE COMPANY)

**ANNEXURE – I****DECLARATION FORM****SPECIFICATION NO.HE -2516****DRAFT UNDERTAKING IN LIEU OF PAYMENT OF EMD**

**(To be furnished in non-judicial stamp paper of value not less than Rs.500/-)**

**THIS UNDERTAKING** executed at . . . . .on this the . . . . . day of.....month of Two thousand and twenty five by M/S. ....a company registered under companies Act 1956, having its registered office at . . . . . herein-under, called the "Tenderer" to & in favour of the TNGECL, a body corporate incorporated under Companies Act, 1956, having its office at 144, Anna Salai, Chennai- - 600 002, represented by . . . . . herein after called the 'TNGECL'.

**WHEREAS** the contract is for the supply/erection/construction etc. in terms of the Tender Specification NO.....dated

**AND WHEREAS** in accordance with clause . . . of the above said tender specification, the tenderer has to furnish E.M.D. of Rs..... (Rupees . . . . . only) AND WHEREAS the tenderer has requested the TNGECL to accept an undertaking in lieu of payment in cash of the E.M.D. AND WHEREAS the TNGECL has accepted the request of the tenderer subject to executing an undertaking to pay to the TNGECL not exceeding Rs..... (Rupees . . . . . only) representing the E.M.D. together with costs in case of non fulfillment of the conditions stipulated in the Tender Specification/or the conditions stipulated in the contract by the tenderer.

**IN CONSIDERATION OF THE TNGECL** having agreed to accept an undertaking from the tenderer in lieu of payment of Earnest Money Deposit in cash, the tenderer undertakes to pay the sum of Rs..... (Rupees . . . . . only) immediately when a demand is raised by the TNGECL against the tenderer without any demur in the event of the following :

- i) If he withdraws his tender or backs out after acceptance of the tender or fails to remit the Security Deposit.
- ii) If he revises any of terms quoted during the validity period, without specific request by the TNGECL.
- iii) If he violates any of the conditions of Tender Specification No.

**NOW THE CONDITION OF THE ABOVE WRITTEN UNDERTAKING** is such that if the tenderer shall duly and faithfully observe and perform the terms and conditions specified in terms of above, then the above written undertaking shall be void, otherwise the same shall remain in full force. The tenderer undertakes not to revoke this guarantee till the contract is completed under the terms of contract. The expressions, 'tenderer' and 'the TNGECL' before used hereafter shall include their respective successors and assign in office.

**IN WITNESS WHEREOF** Thiru ..... for and on behalf of..... the tenderer has signed this undertaking on the day, the month and year first above written.

In the presence of

Witnesses:

1.

Signature

NAME IN BLOCK LETTERS

Signature with names and addresses.

SEAL OF THE COMPANY

All other terms and conditions remain unaltered. For complete details of the tender please visit the following websites.

([www.tangedco.gov.in](http://www.tangedco.gov.in))

([www.tenders.tn.gov.in](http://www.tenders.tn.gov.in))

(<https://tntenders.gov.in>)

**ANNEXURE - II**  
**SPECIFICATION NO.HE -2516**

GUARANTEE IN RESPECT OF SECURITY DEPOSIT CUM PERFORMANCE OF MATERIALS/EQUIPMENTS/WORKS PAYABLE BY THE TENDERER STAMP PAPER VALUE RS.500/-

**THIS DEED OF GUARANTEE MADE AT CHENNAI** this . . . . . day .....month of Two thousand and twenty five between the. . . . .(hereinafter called "The Bank") of the one part and the Tamil Nadu Green Energy Corporation Limited, a body corporate incorporated under Companies Act, 1956, having its registered office at 144, Anna Salai, NPKRR Maaligai, Chennai – 600002 (hereinafter called the Purchaser) of the other part:

WHEREAS . . . . .(hereinafter called "the Contractor") have by virtue of the contract entered into with the Purchaser as per WCT No. . . . . agreed with the Purchaser to supply . . . . in accordance with the terms and conditions contained therein:

AND WHEREAS the Purchaser in his WCT No. . . . has directed the Contractor to pay a sum of Rs. . . . /- (Rupees . . . . . only) as Security Deposit cum performance Guarantee.

AND WHEREAS the contractor has requested the Purchaser to accept the Bank guarantee in lieu of Security Deposit cum performance Guarantee in cash:

AND WHEREAS the Purchaser has agreed to accept the Bank Guarantee from a Scheduled Bank towards Security Deposit cum performance Guarantee for a sum equivalent to 5% (Five percent) of the value of the contract for the satisfactory performance of the contract:

AND WHEREAS the Bank has, at the request of the Contractor, agreed to Guarantee the payment of the said sum in case the contract is not performed in accordance with the specifications indicated in the terms and conditions contained in WCT. No. . . . .

**NOW THE DEED WITNESSESS AS FOLLOWS:-**

1) IN consideration of the Purchaser having agreed to accept a Bank Guarantee from a scheduled Bank towards Security Deposit cum performance Guarantee for a sum equivalent to Rs. . . . . /- (Rupees . . . . . only), the Bank do hereby guarantees that if the Contractor fails to perform the contract in accordance with the specification and conditions of the contract as subsequently amended, the Bank shall pay forthwith to the purchaser such amount or amounts as per Bank may be called upon to pay by the Purchaser:

PROVIDED that the liability of the Bank under this Deed shall not at any time exceed the said Guaranteed amount of Rs.. . . . /- (Rupees . . . . . only).

PROVIDED further that the Guarantee hereunder furnished shall be released as soon as the contractor has performed his part of the contract in accordance with the terms of the contract and a certificate to that effect is issued by the purchaser;

2) The Bank further undertakes to indemnify the purchaser against any loss or damage that may be caused or suffered by the Purchaser by reason of any breach of the terms and conditions in the said PO. . . . .

3) The Guarantee herein contained shall remain in force till the terms and conditions of the PO No. . . . have been fully and properly carried out by the said Contractor and in any case, the Guarantee shall not hold good after the . . . . .



4) The Bank further agrees with the Purchaser that the purchaser shall have the fullest liberty (without the consent of the Bank and without affecting in any manner the obligations of the Bank hereunder) to vary any of the terms and conditions of the contract or to extend the time of performance of the contract by the said contractor from time to time or to postpone from time to time any of the powers exercisable by the purchaser against the said contractor and to forbear or to enforce any of the terms and condition relating to the said contract and the bank shall not be relieved of its liability by reason of any such variations or extensions being granted to the said contractor or by reason of any forbearance, act or omission on the part of the purchaser or any indulgence by the purchaser to the said contractor or by any such matter or thing whatsoever which under the law relating to sureties would but for these provisions have the effect of so relieving the Bank.

5) Any account settled between the Purchaser and the contractor shall be the conclusive evidence against the Bank for the amount due and shall not be questioned by the Bank.

6) The Expressions "Bank", "Purchaser" and "Contractor" herein before used shall include their respective successors and assigns:

Notwithstanding anything contained herein:

- i) Our liability under this Bank Guarantee shall not exceed Rs. . . . ./- (Rupees . . . . . only)
- ii) This Bank Guarantee shall be valid upto . . . . .
- iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before . . . . .

IN WITNESS WHEREOF Thiru. . . . . and on behalf of the bank has signed this Deed on the day, month and year first above written.

IN THE PRESENCE OF WITNESSES.

- 1.
- 2.

**ANNEXURE - III****SPECIFICATION NO.HE-2516****UNDERTAKING TOWARDS JURISDICTION OF LEGAL PROCEEDINGS**

***(To be furnished in non-judicial stamp paper of value not less than Rs.500/-)***

This Undertaking executed at ..... on this ..... (date) ..... Month Two Thousand .....by M/s ....., a company registered under Companies Act , 1956 having its registered office at .....hereinafter called the Contractor ( which expression shall where the context so admits mean and include its successors in office and assigns ) with the TNGECL, a statutory authority created under the powers vested with the Electricity Act 2003, having its registered office at 144, Anna Salai, NPKRR Maaligai, Chennai-600002, hereinafter called the Purchaser (which expression shall where the context admits mean and include its successors in office and assigns ).

**WHEREAS** the contract is for the supply of.....in terms of the W.C.T. No. .... date .....

**AND WHEREAS** in accordance with Clause .....of the above said WCT Certain terms were stipulated for the above supply.

**AND WHEREAS** in accordance with clause ..... of the above mentioned Works Contract Order the contractor has to furnish an Undertaking that no suit or any proceedings in regard to any matter arising in any respect under this contract shall be instituted in any court other than in the City Civil Court of Chennai or other Court of small causes, at Chennai.

In consideration of the TNGECL having agreed to accept the Undertaking from the contractor, undertakes that no suit or proceedings in regard to any matter arising in any respect under this contract shall be instituted in any court other than in the City Civil Court of Chennai or other Court of small causes, at Chennai.

It is also agreed that no other court shall have jurisdiction to any suit or proceedings even though part of the cause of action might arise within their jurisdiction. In case any part of the action arises within the jurisdiction of any of the courts in Chennai City, then it is agreed to between the parties that such suits or proceedings shall be instituted in court within Tamil Nadu and no other court outside Tamil Nadu shall have jurisdiction even though any part of the cause might arise within the jurisdiction of such courts.

**IN WITNESS WHEREOF THIRU**..... of the contractor hereby puts his hand and seal for due observance of the Undertaking in the presence of the following witnesses.

**SIGNATURE WITH SEAL****WITNESSES:**

(Signature with Name and Address)

- 1.
- 2.

**ANNEXURE –IV****SPECIFICATION NO.HE -2516**

ITC Undertaking to be submitted by the L1 bidder in non-judicial stamp paper of value not less than Rs.500/-

To  
The Chief Engineer /Hydro,  
TNGECL.

We hereby declare and confirm that we are registered vendor under GST Act having GSTIN \_\_\_\_\_ in State of \_\_\_\_\_. Our applicable GST% for the above reference job is \_\_\_\_\_ under code \_\_\_\_\_.

We hereby declare and confirm that we are registered vendor under composite scheme having GSTIN.

We are aware that as per sec 171 of CGST Act (ie.ITC benefit), any reduction in rate of tax on any supply of goods or services or the benefit of input tax credit should be passed on to TNGECL by way of commensurate reduction in prices and as such we hereby declare that we are extending Rs. \_\_\_\_\_ /- of % as rebate in my quoted price against input tax credit benefit.

We hereby declare that we do not have any input tax credit benefit on account of GST applicable against this job. If it is established that we have availed input tax credit benefit against this job, the differential tax benefit will be returned to TNGECL failing which TNGECL may take appropriate action.

Signature of bidder with Company Seal.

Note:

Bidder may strike out the para not applicable

**ANNEXURE - V****SPECIFICATION NO.HE -2516****UNDERTAKING FOR PAYMENT OF DUES TO TNGECL**

***(To be furnished in non-judicial stamp paper of value not less than Rs.500/-)***

THIS DEED OF UNDERTAKING executed at . . . . .on this the . . . . . day of  
Two thousand and -----

THE ----- By messers.

Hereinafter called the "TENDERER" (which expression where the context so admits mean and include their agents, Representatives, Successors- in – office and Assigns).

**TO AND IN FAVOUR OF**

The TNGECL is a company registered under companies Act, 1956 having its office at NPKRR Maaligai, 144, Anna salai, Electricity Avenue, Chennai- 600 002, hereinafter called the "Corporation" (which expression shall where the context so admits mean and include the successors- in- office and assigns).

WHEREAS the corporation has called for an undertaking from the Tenderer empowering the Corporation to recover the dues if any.

NOW THIS UNDERTAKING WITNESSETH the corporation is empowered to recover any dues against this contract in any bills/security deposit/E.M.D due to the Tenderer either in this contract or any other contracts with the Corporation. Further, the Tenderer hereby authorises the Corporation to recovery, any dues against any other contract of the Tenderer with the Corporation with the available amount due to the Tenderer against this contract.

IN WITNESS WHERE OF Thiru. acting for and on behalf of the  
Tenderer has signed this deed on the day, month and year herein before first mentioned.

- COMPANY SEAL-

SIGNATURE OF THE TENDERER

NAME :

DESIGNATION:

**ANNEXURE - VI**  
**SPECIFICATION NO.HE -2516**  
**GUARANTEE CERTIFICATE**

We the undersigned M/S ..... hereby guarantee the satisfactory operation and good workmanship for a period of **five years** from the date of taking over of the barrage gates at Gate No.8,9,10,11&12 with Counter weight and hoisting Mechanism by TNGECL in all respect as per schedule.

We shall correct, at our own expense, the defects, if any, during the guarantee period. Within five years, after acceptance of the equipment and completion of erection if any part of the gates etc., is found defective because of workmanship or material or otherwise, we shall at our own expense, furnish and install new part and materials approved by the purchaser.

We shall assume all responsibility for direct damages causing personnel injury or property damage caused by any manufacturing defects resulting in the failure of the equipment being supplied under these specifications.

Any defects noticed during this period shall be rectified free of cost to the Corporation within 2 (Two) months from the intimation of defect/failure. Irrespective of number of failures and repairs, we are responsible for free replacement of the defective materials till the completion of guarantee period. If they are not rectified or replaced within this period we shall pay Liquidated Damages as per Liquidated Damages clause in the contract for the delay from the date of receipt of intimation for the defects or failures. The incidental expenses, insurance and freight charges for the replacement of defective materials within the guarantee period shall also be borne by us till the completion of guarantee period.

The guarantee among other things are the following:

- a. Quality and strength of the materials used.
- b. Satisfactory operation of the equipment.
- c. Safe stresses in all parts under all conditions of operations.
- d. Protection of equipments against vibration and corrosion.
- e. Workmanship

Place:

Date :

SIGNATURE WITH SEAL

**ANNEXURE-VII**  
**SPECIFICATION NO.HE -2516**  
**DRAFT UNDERTAKING**

**(The undertaking should be submitted by the contractors in 500 rupees stamp paper for the respective works while claiming the part/final bills)**

Declaration towards EPF & ESI remittances

Name of the contractor:

EPF Main code number:

ESI Main code number:

Nature of the work:

Contract /K2 agreement No:

1. I/We hereby state that (Name of the contractor) has been duly registered under EPF Act and ESI Act vide main code number \_\_\_\_\_ and \_\_\_\_\_ respectively.
2. I/We hereby state that the EPF & ESI employee and employer contribution has been remitted for all the workers engaged for execution of the respective contracts entered with TNGECL.
3. I/We hereby state that there are no EPF & ESI dues to be remitted in respect of the period of execution of the respective contracts and in case, if there is any shortfall of discharging the EPF & ESI obligations on our part(contractor) at later date, TNGECL shall not be responsible for the consequent Legal/Financial obligations.
4. In the event of EPF & ESI obligations are found on our part (contractor) in respect of subject contract, the same will be duly discharged by me/us to the respective authorities.

Authorised Signatory  
(Contractor)  
With Seal

Date :

Place :